



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

BETH NAGUSKY
ACTING COMMISSIONER

December 2, 2010

Mr. John Clark
Houlton water Company
P.O. Box 726
Houlton, ME 04730
jlc@hwco.org

**RE: Permit Compliance System Tracking (PCS) #MEU508219
Maine Waste Discharge License (WDL) Application #W008219-5J-B-R
FINALIZED WDL**

Dear Mr. Clark:

Enclosed, please find a copy of your **final** Maine WDL, which was approved by the Department of Environmental Protection. Please read the license and its attached conditions carefully. You must follow the conditions in the order to satisfy the requirements of law. Any discharge not receiving adequate treatment is in violation of State law and is subject to enforcement action.

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 485-2281.

Sincerely,

Bill Hinkel
Division of Water Quality Management
Bureau of Land and Water Quality
bill.hinkel@maine.gov

Enc.

cc: Sean Bernard, DEP Lori Mitchell, DEP Sharri Venno, HBMI
Sandy Mojica, USEPA File # W8219

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
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RAY BLDG., HOSPITAL ST.

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BANGOR, MAINE 04401
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PRESQUE ISLE, MAINE 04769-2094
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STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

HOULTON WATER COMPANY)	PROTECTION AND IMPROVEMENT
HOULTON, AROOSTOOK COUNTY, MAINE)	OF WATERS
SURFACE WASTE WATER DISPOSAL SYSTEM)	
PCS TRACKING #MEU508219)	WASTE DISCHARGE LICENSE
WDL #W008219-5J-B-R)	RENEWAL
APPROVAL)	

Pursuant to the provisions of *Conditions of licenses*, 38 M.R.S.A. § 414-A, and applicable regulations, the Department of Environmental Protection (Department hereinafter) has considered the application of the HOULTON WATER COMPANY, (HWC or licensee hereinafter) with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

The licensee has applied to the Department for a renewal of Waste Discharge License (WDL) #W008219-5L-A-N, which was issued to Houlton Water Company by the Department on May 20, 2005, and expired on May 20, 2010. The May 20, 2005 WDL authorized the use of a wastewater disposal system using spray irrigation and discharge of treated wastewater to ground water, Class GW-A, on an approximately 50-acre parcel of property where the HWC's wastewater treatment facility is located in Houlton, Maine. The WDL authorized the seasonal discharge of up to a maximum flow rate of 62,500 gallons (2.3") per acre per week. The WDL authorized the discharge of supernatant from a sludge storage lagoon. The HWC utilizes 1.75 subareas for spray irrigation and each subarea is 1.2 acres in size for a total area of 2.1 acres. By using the 2.1-acre area of the approximately 50-acre parcel for spray irrigation area, the facility may discharge up to 75,000 gallons per week per subarea, or 131,250 gallons per week. The May 20, 2005 WDL authorized spray irrigation during the period of May 1 through November 30, inclusive, of each year.

LICENSE SUMMARY

This licensing action is similar to the May 20, 2005 licensing action in that it is:

Storage Lagoon Effluent (referred to as Outfall #001A):

1. Carrying forward the daily maximum concentration monitoring and reporting requirements both biochemical oxygen demand (BOD₅), total suspended solids (TSS), nitrate-nitrogen total metals, and pH;
2. Carrying forward the Lagoon Maintenance Condition;

Spray Irrigation (referred to as SF#1):

3. Carrying forward the weekly average application rate limitation of 62,500 gallons per acre and the monthly total flow reporting requirements for spray field SF#1, ;
4. Carrying forward the restriction of prohibiting spray irrigation when there is less than ten (10) inches of separation between the ground surface and ground water table during the time of application;
5. Carrying forward the authorized spray irrigation season of May 1 – November 30, inclusive, of each year depending on weather and site conditions;

Ground Water Monitoring Wells (referred to as MW1):

6. Carrying forward the monitoring and reporting requirements for depth to water level below land surface, specific conductance, temperature, pH, total suspended solids and total metals; and
7. Carrying forward the daily maximum concentration limitations of 10 mg/L for nitrate-nitrogen.

This license is different from the May 20, 2005 licensing action in that it is:

Spray Irrigation (referred to as SF#1):

1. Eliminating the requirement to submit to the Department a *Spray Irrigation Performance Report* as an exhibit to the next application for license renewal;
2. Establishing Special Condition P *Vegetation Management Condition*;

Ground Water Monitoring Wells (referred to as MW1):

3. Revising the monitoring requirements for Depth to Water Level Below Land Surface from twice per year during the months of May and October to three times per year during the months of May, August and October;

LICENSE SUMMARY (cont'd)

Facility-Wide

4. Revising the treatment plant operator certification requirement from Grade II to SITS-I based on the minimum standards set forth in Maine law and Department rule; and
5. Establishing Special Condition O, *Disposal Of Transported Waste Into The Wastewater Treatment Facility* which specifically prohibits the facility from accepting transported wastes for disposal into any part or parts of the wastewater disposal system.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated December 2, 2010, 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 MRSA Section 464(4)(F), will be met, in that:
 - (a) Existing water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;
 - (b) Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;
 - (c) The standards of classification of the receiving water body are met or, 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 as defined in 38 M.R.S.A. § 414-A(1)(D).

ACTION

THEREFORE, the Department APPROVES the above noted application of HOULTON WATER COMPANY, to operate a surface wastewater disposal (spray irrigation) associated with a sludge storage lagoon system located in Houlton, Maine, and with a maximum flow rate of 62,500 gallons (2.3") per acre per week and up to 131,250 gallons per week during the period of May 1 through November 30, inclusive, of each year to the soil above ground water resources of the state, Class GW-A, SUBJECT TO THE FOLLOWING CONDITIONS, and all applicable standards and regulations including:

1. *Standard Conditions of Approval for POTW Waste Discharge Licenses*, revised July 16, 1996, copy attached.
2. The attached Special Conditions, including effluent limitations and monitoring requirements.
3. This license becomes effective upon the date of signature below and expires at midnight five (5) years thereafter.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

Date of initial receipt of application: March 29, 2010

Date of application acceptance: March 30, 2010

This Order prepared by Bill Hinkel, BUREAU OF LAND & WATER QUALITY

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning the effective date of this license, the licensee is authorized to operate a surface wastewater treatment and disposal system. The **STORAGE LAGOON EFFLUENT (OUTFALL #001A)**, shall be limited and monitored as specified below ⁽¹⁾.

<u>Monitoring Parameters</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Biochemical Oxygen Demand	Report mg/L	1/Month ⁽²⁾	Grab
<i>[00310]</i>	<i>[19]</i>	<i>[01/30]</i>	<i>[GR]</i>
Total Suspended Solids	Report mg/L	1/Month ⁽²⁾	Grab
<i>[00530]</i>	<i>[19]</i>	<i>[01/30]</i>	<i>[GR]</i>
Nitrate-Nitrogen	Report mg/L	1/Month ⁽²⁾	Grab
<i>[00620]</i>	<i>[19]</i>	<i>[01/30]</i>	<i>[GR]</i>
pH (Standard Units)	Report S.U.	1/Month ⁽²⁾	Grab
<i>[00400]</i>	<i>[12]</i>	<i>[01/30]</i>	<i>[GR]</i>
<u>Lagoon Effluent Metals (Total):</u> Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel and Zinc	Report µg/L	1/5 Years ⁽³⁾	Grab
<i>[01002, 01027, 01034, 01042, 01051, 71900, 01067, 01092]</i>	<i>[28]</i>	<i>[01/5Y]</i>	<i>[GR]</i>

The bracketed italicized numeric values in the table above are code numbers that the Department personnel utilize to code the monthly Discharge Monitoring Reports. Footnotes: - See pages 7-8 of this license.

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning the effective date of this license, application of wastewater to the land via a spray irrigation system shall be limited to the time period **May 1 through November 30, inclusive, of each calendar year**. The **SPRAY-IRRIGATION FIELD (SF#1)** shall be limited and monitored as specified below ⁽¹⁾.

<u>Monitoring Parameters</u>	<u>Monthly Total</u>	<u>Weekly Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Application Rate <i>[51125]</i>	---	62,500 gal/acre/week ^(4,5) (2.3 in/acre/week) <i>[8B]</i>	1/Week <i>[01/07]</i>	Calculate <i>[CA]</i>
Flow - Total Gallons <i>[82220]</i>	Report (Gallons/Month) ⁽⁴⁾ <i>[80]</i>	---	1/Month <i>[01/30]</i>	Calculate <i>[CA]</i>

The bracketed italicized numeric values in the table above are code numbers that the Department personnel utilize to code the monthly Discharge Monitoring Reports. Footnotes: - See pages 7-8 of this license.

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS

3. During the period beginning the effective date of this license, **GROUND WATER MONITORING WELL** (MW-1) shall be limited and monitored as specified below ⁽¹⁾.

<u>Monitoring Parameters</u>	<u>Daily Maximum as specified</u>	<u>Minimum Measurement Frequency as specified</u>	<u>Sample Type as specified</u>
Depth to Water Level Below Land Surface [72019]	Report (feet) ⁽⁶⁾ [27]	3/Year ⁽⁷⁾ [03/YR]	Measure [MS]
Nitrate-Nitrogen [00620]	10 mg/L [19]	2/Year ⁽⁸⁾ [02/YR]	Grab [GR]
Chloride (Total) [00940]	Report (mg/L) [19]	2/Year ⁽⁸⁾ [02/YR]	Grab [GR]
Specific Conductance [00095]	Report (umhos/cm) [11]	2/Year ⁽⁸⁾ [02/YR]	Grab [GR]
Temperature (°F) [00011]	Report (°F) [15]	2/Year ⁽⁸⁾ [02/YR]	Grab [GR]
pH (Standard Units) [00400]	Report (S.U.) [12]	2/Year ⁽⁸⁾ [02/YR]	Grab [GR]
Total Suspended Solids [00530]	Report (mg/L) [19]	2/Year ⁽⁸⁾ [02/YR]	Grab [GR]
<u>Metals (Total):</u> Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel and Zinc [01002, 01027, 01034, 01042, 01051, 71900, 01067, 01092]	Report µg/L [28]	1/5 Years ⁽³⁾ [01/5Y]	Grab [GR]

The bracketed italicized numeric values in the table above are code numbers that the Department personnel utilize to code the monthly Discharge Monitoring Reports. Footnotes: - See pages 7-8 of this license.

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

FOOTNOTES:

1. **Sampling** – Sampling and analysis must be conducted in accordance with; a) methods approved in Title 40 *Code of Federal Regulations* (40 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.A. § 413 are subject to the provisions and restrictions of the *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (last amended February 13, 2000). Laboratory facilities that analyze compliance samples in-house are subject to the provisions and restrictions of 10-144 CMR 263.

Lagoon Treatment Facilities

2. Lagoon effluent shall be sampled at a frequency of once per month during the period of May 1 through November 30, inclusive, of each year. In the event that no wastewater is disposed of via the spray irrigation system for an entire calendar month, the licensee is not required to conduct effluent monitoring as otherwise required in Special Condition A.1 of this license.

Lagoon effluent shall be sampled at a point in the lagoon furthest from the lagoon's influent pipe or at a sampling port on the discharge pipe leading to the spray irrigation area and shall be representative of what is actually sprayed on the fields. Any change in sampling location must be approved by the Department in writing.

3. **Screening level metals testing** – The licensee shall conduct one round of testing for the specified metals **during the fourth calendar quarter of the fourth year of the license**, unless otherwise specified by the Department.

Spray-Irrigation Fields

4. A field's daily or weekly application rate is the total gallons sprayed over the applicable period of time divided by the size of the wetted area of the spray-irrigation field in acres or the wetted areas in acres of that portion of the field utilized. Note: 27,150 gallons is equivalent to one acre-inch. The licensee shall measure the flow of waste water to the irrigation area by the use of a flow measuring device that is checked for calibration at least once per calendar year. Weekly is defined as Sunday through Saturday.
5. For Discharge Monitoring Report (DMR) reporting purposes, the licensee shall report the highest weekly application rate for the month in the applicable box on the form. Compliance with weekly reporting requirements must be reported for the month in which the calendar week ends.

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

FOOTNOTES:

Ground water Monitoring

6. Measured to the nearest one-hundredth ($1/10^{\text{th}}$) of a foot as referenced from the surface of the ground at the base of the monitoring well.
7. Depth to Water Level Below the Land Surface shall be conducted in the months **of May, August and October** of each calendar year.
8. Groundwater sampling shall be conducted the months of **May and October** of each year. Sampling, handling and preservation shall be conducted in accordance with federally-approved methods (See Footnote #1 above). Specific conductance (calibrated to 25.0° C), temperature, and pH are considered to be “field” parameters, and are to be measured in the field via instrumentation. The licensee is required to test for these parameters whether wastewater was disposed of via the spray-irrigation system or not.

B. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent shall not contain materials in concentrations or combinations which would impair the uses designated by the classification of the ground water.
2. The effluent must not lower the quality of any classified body of water (ground water is a classified body of water under 38 M.R.S.A. § 465-C) 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 person who has the management responsibility over the treatment facility must hold a **SITS-I (or higher)** certificate or must be a Maine Registered Professional Engineer pursuant to *Sewerage Treatment Operators*, 32 M.R.S.A., § 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 licensee may engage the services of the contract operator.

D. MONITORING AND REPORTING

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report (DMR) forms provided by the Department and **postmarked on or before the thirteenth (13th) day of the month or hand-delivered to the Department's Regional Office** such that the DMRs are **received by the Department on or before the fifteenth (15th) day of the month** following the completed reporting period.

SPECIAL CONDITIONS

D. MONITORING AND REPORTING (cont'd)

A signed copy of the DMR and all other reports required herein shall be submitted to the following address:

Maine Department of Environmental Protection
Northern Maine Regional Office
Bureau of Land and Water Quality
Division of Water Quality Management
1235 Skyway Park
Presque Isle, Maine 04769

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

E. AUTHORIZED DISCHARGES

The licensee is authorized to discharge treated sludge lagoon supernatant effluent only in accordance with: 1) the licensee's General Application for Waste Discharge License, accepted for processing on March 30, 2010; 2) the terms and conditions of this license; and 3) only to spray irrigation field SF#1 from those sources as indicated in the Waste Discharge License application. Discharges of wastewater from any other point source are not authorized under this license, and shall be reported in accordance with Standard Condition 4, *Non-Compliance Notification*, of this license.

F. NOTIFICATION REQUIREMENT

In accordance with Standard Condition #6, the licensee shall notify the Department of:

1. Any introduction of pollutants into the waste water collection and treatment system from an indirect discharger in a primary industrial category discharging process waste water;
2. Any substantial change in the volume or character of pollutants being introduced into the waste water collection and treatment system by a source introducing pollutants into the system at the time of license issuance. For the purposes of this section, notice regarding substantial change shall include information on:
 - (a) the quality and quantity of waste water introduced to the waste water collection and treatment system; and

SPECIAL CONDITIONS

F. NOTIFICATION REQUIREMENT (cont'd)

- (b) any anticipated impact caused by the change in the quantity or quality of the waste water to be discharged from the treatment system; and
- 3. The licensee shall notify the Department as soon as it becomes aware of any threat to public health, unlicensed discharge of wastewater, or any malfunction that threatens the proper operation of the system. Notification shall be made in accordance with the attached Standard Condition #4 of this license.

G. GENERAL OPERATIONAL CONSTRAINTS

- 1. All wastewater shall receive treatment through properly designed, operated and maintained lagoon system prior to land irrigation.
- 2. The surface wastewater disposal system shall be effectively maintained and operated at all times so that there is no discharge to surface waters, nor any contamination of ground water which will render it unsatisfactory for usage as a public drinking water supply.
- 3. The surface wastewater disposal system shall not cause the lowering of the quality of the ground water, as measured in the ground water monitoring wells specified by this license, below the State Primary and Secondary Drinking Water Standards specified in the Maine State Drinking Water Regulations, *Water for Human Consumption*, 22 M.R.S.A. § 2611 *et seq.*

In the event that ground water monitoring results indicate lowering of the existing ground water quality, the licensee may be required to take immediate remedial action(s), which may include but are not limited to, adjustment of the irrigation schedule or application rates, a reduction of the pollutant loading, ground water remediation, or ceasing operation of the system until the ground water attains applicable standards.

- 4. The licensee shall maintain a file on the location of all system components and relevant features. Each component shall be mapped and field located sufficiently to allow adequate inspections and monitoring by both the licensee and the Department.
- 5. System components including collection pipes, tanks, manholes, pumps, pumping stations, spray disposal fields, and monitoring wells shall be identified and referenced by a unique identifier (alphabetical, numeric or alpha-numeric) in all logs and reports.
- 6. Neither manure waste nor septage may be applied to the spray irrigation fields at any time due to the interference the activity may cause in monitoring well results.

H. SPRAY IRRIGATION OPERATIONAL CONSTRAINTS

- 1. Wastewater may not be applied to areas without sufficient vegetation or ground cover as to prevent erosion or surface water runoff outside the designated boundaries of the spray fields. The licensee shall not allow significant runoff or ponding within or out of the spray irrigation area due to the spray irrigation events.

SPECIAL CONDITIONS

H. SPRAY IRRIGATION OPERATIONAL CONSTRAINTS (cont'd)

2. At least 10 inches of separation from the ground surface to the ground water table shall be present prior to spray irrigation.
3. No waste water shall be applied to the site following a rainfall accumulation exceeding 1.0 inch within the previous 24-hour period. **A rain gauge shall be located on site to monitor daily precipitation.** The licensee shall also manage application rates by taking into consideration the forecast for rain events in the 48-hour period in the future.
4. No wastewater shall be applied where there is snow present on the surface of the ground.
5. No wastewater shall be applied when there is any evidence of frost or frozen ground within the upper 10 inches of the soil profile.
6. Care shall be taken when operating equipment in the spray irrigation area in order to minimize disturbance during periods when spray irrigation operations are being conducted.
7. The licensee shall not apply wastewater within the setback areas delineated on the aerial facility map included as Attachment A of the Fact Sheet associated with this license.

I. SPRAY IRRIGATION OPERATIONAL PROCEDURES, LOGS AND REPORTS

1. **Prior to the commencement of spray irrigation for the season**, the licensee shall notify the Department's compliance inspector that it has verified site conditions are appropriate (frozen ground, soil moisture, etc.) for spray irrigation.
2. The licensee shall install the equivalent of one ground water level inspection well to verify that 10 inches of separation from the ground surface to the observed ground water level is present prior to spraying. Depths to ground water shall be recorded in accordance with the format of "*Depth to Ground Water*" provided as **Attachment C** of this license.
3. The licensee shall at all times maintain in good working order and operate at maximum efficiency all waste water collection, treatment and/or control facilities. Should significant malfunctions or leaks be detected, the licensee must shut down the malfunctioning portion of the spray system and make necessary repairs before resuming operation. The licensee shall cease irrigation if runoff is observed outside the designated boundaries of the spray field.
4. **The licensee shall maintain a daily log** of all spray irrigation operations which records, the date, weather and soil conditions, rainfall, areas irrigated, volume sprayed (gallons), application rates (daily and weekly), and other relevant observations/comments from daily inspections. The log shall be in accordance with the format of the "*Monthly Operations Log*" provided as **Attachment A** of this license.

SPECIAL CONDITIONS

I. SPRAY IRRIGATION OPERATIONAL PROCEDURES, LOGS AND REPORTS (cont'd)

Weekly spray application rates shall be reported in accordance with the format of the "*Spray Application Report by Week*" provided as **Attachment B** of this license.

The *Monthly Operations Log, Spray Application Report by Week, and Depth to Groundwater* for each month shall be submitted to the Department as an attachment to the monthly Discharge Monitoring Reports (DMRs). Copies will also be maintained on site for Department review and for license operation maintenance purposes.

J. LAGOON MAINTENANCE

1. The integrity of the lagoons shall be inspected periodically during the operating season and properly maintained at all times. There shall be no overflow through or over the banks. Any signs of leaks or overflow shall be repaired or corrected immediately.
2. The licensee shall maintain the lagoon freeboard at design levels or at least one (1) foot, whichever is greater. The lagoons shall be operated in such a way as to balance the disposal of wastewater via spray irrigation and to ensure that design freeboard levels are maintained.
3. The lagoons shall be cleaned of solid materials as necessary to maintain the proper operating depths in both types of tanks that will provide best practicable treatment of the wastewater. All material removed from the tanks and lagoon shall be properly disposed of in accordance with all applicable State and Federal rules and regulations.

K. INSPECTIONS AND MAINTENANCE

The licensee shall periodically inspect all system components to ensure the facility is being operated and maintained in accordance with the design of the system. Maintenance logs shall be maintained for each major system component including pumps, pump stations, storage tanks, spray apparatus, and pipes. At a minimum, the logs shall include the unique identifier [alphabetic, numeric or alpha-numeric -see Special Condition G(5)], the date of maintenance, type of maintenance performed, names or person performing the maintenance, and other relevant system observations.

L. GROUND WATER MONITORING WELLS AND WATER QUALITY MONITORING PLAN DETAILS

The licensee shall maintain an up-to-date ground water quality monitoring plan showing the locations and well construction details of the wells, groundwater flow direction, and well sampling results as well as a comprehensive evaluation of the efficiency of the treatment system and testing methodology. The licensee shall refer to guidance for said plan as outlined in Fact Sheet **Attachment B** entitled, "*Water Quality Monitoring Plan Details.*"

SPECIAL CONDITIONS

L. GROUND WATER MONITORING WELLS AND WATER QUALITY MONITORING PLAN DETAILS (cont'd)

All monitoring wells shall be equipped and maintained with a cap and lock to limit access and shall be maintained in a secured state at all times. The integrity of the monitoring wells shall also be verified annually. The Department reserves the right to require increasing the depth and or relocating any of the groundwater monitoring wells if the well is perennially dry or is determined to not provide data representative of groundwater conditions.

M. OPERATIONS AND MAINTENANCE (O&M) PLAN AND SITE PLAN(S)

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

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

Within 90 days of completion of new and substantial upgrades of the wastewater treatment facility, the licensee shall submit the updated O&M Plan to their Department inspector for review and comment.

N. PUBLIC ACCESS TO LAND APPLICATION SITES AND SIGNAGE

Access to the land application sites shall be limited during the season of active site use. The licensee shall install signs measuring at least 8 ½" x 11", in areas of concern around the perimeter of the lagoon and spray irrigation site that inform the general public that the area is being used to dispose of wastewater. The signs must be constructed of materials that are weather resistant. The licensee must annually inspect and make any necessary repairs to the signage to comply with this condition.

O. DISPOSAL OF TRANSPORTED WASTE INTO THE WASTEWATER TREATMENT FACILITY

The licensee is prohibited from accepting transported wastes for disposal into any part or parts of the wastewater disposal system. "Transported wastes" means any liquid non-hazardous waste delivered to a wastewater treatment facility by a truck or other similar conveyance that has different chemical constituents or a greater strength than the influent described on the facility's application for a waste discharge license. Such wastes may include, but are not

SPECIAL CONDITIONS

O. DISPOSAL OF TRANSPORTED WASTE INTO THE WASTEWATER TREATMENT FACILITY (cont'd)

limited to, septage, industrial wastes or other wastes to which chemicals in quantities potentially harmful to the treatment facility or receiving water have been added.

P. VEGETATION MANAGEMENT

1. The licensee shall remove grasses and other vegetation such as shrubs and trees if necessary so as not to impair the operation of the spray-irrigation system, ensure uniform distribution of wastewater over the desired application area and to optimize nutrient uptake and removal.
2. The existing vegetative buffer zones along the perimeter of the site shall continue to be maintained in a manner consistent with past practices. The goal of this maintenance is to maximize vegetation and forest canopy in order to minimize the potential for off-site drift or spray.

Q. REOPENING OF LICENSE FOR MODIFICATIONS

Upon evaluation of test results required by this license, new site specific information or any other pertinent information gathered during the term of this license, the Department may, at anytime and with notice to the licensee, modify this license 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.

R. SEVERABILITY

In the event that any provision, or part thereof, of this license is declared to be unlawful by a reviewing court, the remainder of the license 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

(Month/Year) _____)

Weekly Application Rate: 62,500 gallons/acre (2.3 inches)

Monthly Total =

ATTACHMENT B

Spray Application Report by Week**Attachment B****Facility Name**_____;

WDL #W8219-5J-B-R;(Month _____, Year _____) Weekly Application Rate 62,500 gallons/acre 2.3 inches)

Field Name/#	Effective Spray Area (Acres)	Weekly Limit (Gallons/Acre)	Actual Spray Application Rates (Gallons per Acre)					Number of Exceptions to Weekly Limit	Monthly Average
			Week 1	Week 2	Week 3	Week 4	Week 5		
Note: 1 acre-inch is equivalent to 27,150 gallons of liquid 27,150 gallons per acre is equivalent to 1.0 inch						Total Number of Exceptions			

A spray-field's weekly application rate if the total gallons sprayed (Sunday through Saturday) divided by the size of the spray-field in acres or the size in acres of that portion of the spray field utilized.

Signature of Responsible Official: _____, Date _____

ATTACHMENT C

Depth to Groundwater (Tenths of Feet)**Attachment C**

(Month _____, Year _____)

Facility Name: Houlton Water Company; WDL #W8219-5J-B-R;

Field Name/#	Monitoring Location	Depth to Groundwater (Measured From Ground Surface in Tenths of Feet)					Number of Exceptions	Monthly Average Depth
		Week 1	Week 2	Week 3	Week 4	Week 5		
Total Number of Exceptions								

Note: Special Condition H of the License requires that a depth of 10 inches from the ground surface to the ground water table must be present prior to spraying.

Signature of Responsible Official: _____, Date _____

MAINE WASTE DISCHARGE LICENSE

FACT SHEET

DATE: **DECEMBER 2, 2010**

COMPLIANCE TRACKING NUMBER: **#MEU508219**
WASTE DISCHARGE LICENSE NUMBER: **#W008219-5L-B-R**

NAME AND ADDRESS OF APPLICANT:

**HOULTON WATER COMPANY
P.O. BOX 726
HOULTON, MAINE 04730**

COUNTY: **AROOSTOOK COUNTY**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

**135 ACCESS ROAD
HOULTON, MAINE 04730**

RECEIVING WATER/CLASSIFICATION: **GROUND WATER/CLASS GW-A**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **MR. JOHN CLARK
GENERAL MANAGER
(207) 532-2350
jlc@hwco.org**

1. APPLICATION SUMMARY

- a. Application: Houlton Water Company (HWC) has applied to the Department of Environmental Protection (Department) for a renewal of Waste Discharge License (WDL) #W008219-5L-A-N, which was issued to Houlton Water Company by the Department on May 20, 2005, and expired on May 20, 2010. The May 20, 2005 WDL authorized the use of a wastewater disposal system using spray irrigation and discharge of treated wastewater to ground water, Class GW-A, on an approximately 50-acre parcel of property where the HWC's wastewater treatment facility is located in Houlton, Maine. The WDL authorized the seasonal discharge of up to a maximum flow rate of 62,500 gallons (2.3") per acre per week. The WDL authorized the discharge of supernatant from a sludge storage lagoon. The HWC utilizes 1.75 subareas for spray irrigation and each subarea is 1.2 acres in size for a total area of 2.1 acres. By using the 2.1-acre area of the approximately 50-acre parcel for spray irrigation area, the facility may discharge up to 75,000 gallons per week per subarea, or 131,250 gallons per week.

1. APPLICATION SUMMARY (cont'd)

The May 20, 2005 WDL authorized spray irrigation during the period of May 1 through November 30, inclusive, of each year. It is noted secondary treated waste waters from the HWC waste water treatment facility are discharged directly to the Meduxnekeag River and are regulated via Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0101290.

2. LICENSE SUMMARY

- a. Terms and conditions: **This licensing action is similar to the May 20, 2005 licensing action in that it is:**

Storage Lagoon Effluent (referred to as Outfall #001A):

1. Carrying forward the daily maximum concentration monitoring and reporting requirements both biochemical oxygen demand (BOD₅), total suspended solids (TSS), nitrate-nitrogen total metals, and pH;
2. Carrying forward the Lagoon Maintenance Condition;

Spray Irrigation (referred to as SF#1):

3. Carrying forward the weekly average application rate limitation of 62,500 gallons per acre and the monthly total flow reporting requirements for spray field SF#1, ;
4. Carrying forward the restriction of prohibiting spray irrigation when there is less than ten (10) inches of separation between the ground surface and ground water table during the time of application;
5. Carrying forward the authorized spray irrigation season of May 1 – November 30, inclusive, of each year depending on weather and site conditions;

Ground Water Monitoring Wells (referred to as MW1):

6. Carrying forward the monitoring and reporting requirements for depth to water level below land surface, specific conductance, temperature, pH, total suspended solids and total metals; and
7. Carrying forward the daily maximum concentration limitations of 10 mg/L for nitrate-nitrogen.

This license is different from the May 20, 2005 licensing action in that it is:

Spray Irrigation (referred to as SF#1):

1. Eliminating the requirement to submit to the Department a *Spray Irrigation Performance Report* as an exhibit to the next application for license renewal;
2. Establishing Special Condition P *Vegetation Management Condition*;

2. LICENSE SUMMARY (cont'd)

Ground Water Monitoring Wells (referred to as MW1):

3. Revising the monitoring requirements for Depth to Water Level Below Land Surface from twice per year during the months of May and October to three times per year during the months of May, August and October;

Facility-Wide

4. Revising the treatment plant operator certification requirement from Grade II to SITS-I based on the minimum standards set forth in Maine law and Department rule; and
 5. Establishing Special Condition O, *Disposal Of Transported Waste Into The Wastewater Treatment Facility* which specifically prohibits the facility from accepting transported wastes for disposal into any part or parts of the wastewater disposal system.
- b. History: The most current relevant regulatory actions and or significant events include the following;
- May 20, 2005 – The Department issued initial WDL #W008219-5L-A-N to HWC for the operation of a surface waste water disposal system and resultant discharge to ground waters in Houlton, Maine. The May 20, 2005 WDL was issued for a five-year term.
- March 29, 2010 – HWC timely submitted a General Application to the Department for a renewal of the May 20, 2010 WDL. The application was accepted for processing on March 30, 2010 and was assigned WDL #W008219-5J-B-R.
- c. Source Description: HWC owns and operates a publicly owned treatment works (POTW) that provides a secondary level of treatment for sanitary waste waters generated by a population of approximately 6,500 residential and commercial entities in the Town of Houlton. There are no major commercial or industrial users of the system that contribute more than 10% of the flow or pollutant loading to the waste water treatment facility.
- HWC's sewer collection system is approximately 37 miles in length, has five pump stations and is completely separated from the storm water collection system and as a result, there are no combined sewer overflow (CSO) points. The waste water treatment facility is currently not permitted to accept transported wastes.

2. LICENSE SUMMARY (cont'd)

- d. Wastewater Treatment: The waste sludge generated by the waste water treatment facility is pumped to and stored in a large holding lagoon that measures approximately 200 feet long by 75 feet wide by 10 feet deep. The total working capacity of the lagoon is approximately 1.0 million gallons. The licensee proposes to seasonally (May 1st – November 30th of each year) dispose of the supernatant from the lagoon to a 12-acre parcel of land via a surface waste water disposal (spray irrigation) system.

Supernatant from the HWC's sludge storage lagoon will be decanted using a submersible pump on a pump crane. The pump can be raised or lowered as necessary to stay above the sludge layer but below the scum layer of the lagoon. Supernatant will be pumped to the metering and filtration system. For proper pump setting, initially supernatant is pumped from the lagoon through the recirculation line back to the lagoon until supernatant is visually confirmed to be free of sludge and scum. The recirculation line is then closed and supernatant is pumped through one of the basket filters. The filtered supernatant will be delivered through a water meter to feeder pipes that will deliver the supernatant to the spray headers for land application.

Between May 1st and November 30th of each year, waste water from the lagoon is conveyed to a single spray field, SF#1, which is approximately 12 acres in area. Waste water is applied to the spray field via 8 spray heads. HWC typically pumps water from the lagoon for 4 to 5 hours per sub-application area (1.75 sub-application areas total) each operating day for up to 4 days per week. The maximum operating rate proposed by HWC results in a total of approximately 62,500 gallons of wastewater applied per acre per week, or 2.3 inches/acre/week.

The on-site soils are Conant and Mapleton Series that are generally deep, moderately well drained soils in glacial tills.

3. CONDITIONS OF THE LICENSE

Conditions of licenses, 38 M.R.S.A. § 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System.

4. RECEIVING WATER QUALITY STANDARDS

Classification of ground water, 38 M.R.S.A. § 470, indicates the ground water at the point of discharge is classified as Class GW-A receiving waters. *Standards of classification of ground water*, 38 M.R.S.A. § 465-C, describes the standards for Class GW-A waters as the highest classification of ground water and shall be of such quality that it can be used for public water supplies. These waters shall be free of radioactive matter or any matter that imparts color, turbidity, taste or odor which would impair the usage of these waters, other than occurring from natural phenomena.

5. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Slow rate land irrigation treatment is an environmentally sound and appropriate technology for best practicable treatment and disposal of sanitary and sanitary like waste waters. The soils and vegetation within the irrigation area will provide adequate filtration and absorption to preserve the integrity of the soil, and both the surface and groundwater quality in the area.

- a. Spray Irrigation Application Rate: The previous licensing action established, and this permitting action is carrying forward, a weekly average application rate of 62,500 gallons/acre for the Spray Irrigation Field SF1. The weekly average limitation is based on the on the characteristics of in-situ soils and to ensure a margin of safety against hydraulically overloading a spray area on any one given day. This licensing action authorizes the use of the spray irrigation system during the period of May 1 through November 30, inclusive, of each year, provided compliance with the other terms and conditions of this license. The irrigation flow rate shall be calculated on a daily basis when the system is in use. This licensing action is carrying forward a monthly total reporting requirement for total gallons of wastewater applied to the spray site consistent with the conditions for other spray irrigation facilities in Maine.

Spray irrigation application rate data submitted to the Department by HWC for the period of September 2007 through July 2010 ranges from 13,793 to 61,667 gal/acre with an arithmetic mean of 47,111 gal/acre (#DMRs = 10).

- b. Biochemical Oxygen Demand (BOD₅) and Total Suspended Solids (TSS): The previous licensing action established, and this licensing action is carrying forward, daily maximum concentration reporting requirements for BOD₅ and TSS for lagoon effluent (PCS ID #001A) based on a Department best professional judgment (BPJ). BOD₅ is the rate at which organisms use the oxygen in waste water while stabilizing decomposable organic matter under aerobic conditions. BOD₅ measurements indicate the organic strength of wastes in water. TSS consists of both settleable and non-settleable solid materials contained in the wastewater. Monitoring for these parameters yields an indication of the effectiveness of the lagoon treatment process and the condition of the wastewater being applied. This licensing action is carrying forward the minimum monitoring frequency requirement of once per month during the normal operating season of May through November.

Lagoon effluent BOD₅ data submitted to the Department by HWC for the period of September 2007 through July 2010 ranges from 96 mg/L to 872 mg/L with an arithmetic mean of 345 mg/L (#DMRs = 9).

Lagoon effluent TSS data submitted to the Department by HWC for the period of September 2007 through July 2010 ranges from 53 mg/L to 278 mg/L with an arithmetic mean of 148 mg/L (#DMRs = 9).

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

The previous licensing action established, and this licensing action is carrying forward, a daily maximum TSS concentration reporting requirement for the ground water monitoring well (PCS ID #MW1) and is carrying forward the minimum monitoring frequency requirement of twice per year during the months of May and October of each year.

Monitoring well TSS data submitted to the Department by HWC for the period of September 2007 through July 2010 ranges from 4 mg/L to 80 mg/L with an arithmetic mean of 35 mg/L (#DMRs = 5) and no increasing trend.

- c. pH: The previous licensing action established a daily maximum pH reporting requirement for lagoon effluent and ground water monitoring well based on a Department BPJ. The licensee is required to report lagoon effluent pH in standard units (SU). pH is considered a “field” parameter meaning that it is measured directly in the field via instrumentation and does not require laboratory analysis. It is considered a surveillance level monitoring parameter that is used as an early-warning indicator of potential ground water contamination. This licensing action is carrying forward the minimum monitoring frequency requirement of once per month during the normal operating season of May through November for lagoon effluent and twice per year in the months of May and October for the ground water monitoring well.

Lagoon effluent pH data submitted to the Department by HWC for the period of September 2007 through July 2010 has ranges from 6.6 SU to 7.1 SU (#DMRs = 10).

Monitoring well pH data submitted to the Department by HWC for the period of September 2007 through July 2010 ranges from 6.71 SU to 7.0 SU (#DMRs = 5) with an increasing trend.

- d. Lagoon Freeboard: The previous licensing action established a daily maximum lagoon freeboard limitation of ≥ 2.0 feet as measured to the nearest one tenth ($1/10^{\text{th}}$) of a foot. In this licensing action, the Department has revised the minimum freeboard limit to the design for the lagoon or one foot, whichever is greater, for consistency with the conditions imposed in other licensing actions. See Special Condition J.2 of this license.
- e. Specific Conductance: The previous licensing action established, and this permitting action is carrying forward, a daily maximum reporting requirement for specific conductance for the ground water monitoring well. Specific conductance is considered a “field” parameter, meaning that it is measured directly in the field via instrumentation and does not require laboratory analysis. It is considered a surveillance level monitoring parameter that is used as an early-warning indicator of potential ground water or surface water contamination. This licensing action is carrying forward the minimum monitoring frequency requirement of twice per year during the months of May and October of each year for monitoring well specific conductance.

Monitoring well specific conductance data submitted to the Department by HWC for the period of September 2007 through July 2010 ranges from 523 umhos/cm to 1,055 umhos/cm (#DMRs = 5) with an arithmetic mean of 729 umhos/cm (#DMRs = 5) and no increasing trend.

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

- f. Nitrate-nitrogen: Nitrogen assumes different forms depending upon the oxidation-reduction conditions in the soil and ground water. The presence of a particular form of nitrogen indicates the nutrient attenuation capacity of the spray site. The previous licensing action established, and this licensing action is carrying forward, a daily maximum monitoring and reporting requirement for nitrate-nitrogen for lagoon effluent to assist in determining the effectiveness of the treatment process. The monitoring well sampling can also help identify chronic leakage from the lagoon or overloading of the spray sites. Nitrogen compounds can indicate human health concerns if elevated in a drinking water supply. The previous licensing action established, and this licensing action is carrying forward, a daily maximum limitation of 10 mg/L for nitrate-nitrogen in the ground water monitoring well, which was based on state and federal drinking water standards.

Lagoon effluent nitrate-nitrogen data submitted to the Department by HWC for the period of September 2007 through July 2010 ranges from <1.0 mg/L to 5.7 mg/L with an arithmetic mean of 2 mg/L (#DMRs = 8).

Monitoring well nitrate-nitrogen data were not available in the permit compliance system database at the time this draft license was issued. HWC provided the following groundwater monitoring well data for calendar years 2005 through 2010 via e-mail dated November 15, 2010.

Houlton Water Company Spray Irrigation MW-1, Nitrate Results 2005 - 2010	
Sample Date	Nitrate Nitrogen (mg/l)
7/18/2005	4.5
10/20/2005	4.8
5/16/2006	7.7
10/1/2006	No Sample
5/17/2007	6.7
10/1/2007	No Sample
5/7/2008	7.6
10/9/2008	47
5/11/2009	7.1
10/23/2009	11
5/27/2010	10
10/1/2010	No Sample

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

In its November 15, 2010 e-mail, HWC's consultant provided the following discussion concerning elevated nitrate-nitrogen level in the monitoring well:

As you will see when you look at these data, the nitrate levels in the monitoring well samples have ranged from 4.5 mg/L to 47 mg/L in the sampling period from 2005 through 2010.

The nitrate levels in the supernatant from the lagoon that is applied to the spray field by the HWC ranged from <0.25 mg/L to 5.7 mg/L. The estimate average nitrate concentration in the samples of supernatant collected from the header pipe is only 1.2 mg/L over the 5 year period.

We agree that the Department should be concerned about the elevated level of nitrate in the groundwater at the site but clearly the HWC is not causing or contributing to the elevated levels in the groundwater samples.

The Department will evaluate future groundwater monitoring data to determine whether there is an increasing trend in nitrate-nitrogen levels.

- g. Depth to Water Level Below Land Surface: The previous licensing action established, and this licensing action is carrying forward, a daily maximum reporting requirement for depth to water level below land surface for the ground water monitoring wells. This licensing action is revising the minimum monitoring frequency requirement to three times per year during the months of May, August and October of each year for consistency with the conditions established in more recent licensing actions. Measurements will be used to monitor representative ground water conditions.
- h. Temperature: The previous licensing action established, and this licensing action is carrying forward, a daily maximum temperature reporting requirement for ground water monitoring wells. Temperature is considered a "field" parameter, meaning that it is measured directly in the field via instrumentation and does not require laboratory analysis. It is considered a surveillance level monitoring parameter that is used as an early-warning indicator of potential ground water contamination. This permitting action is revising the minimum monitoring frequency requirement to twice per year during the months of May and October of each year. This permitting action is establishing a daily maximum temperature monitoring requirement for lagoon effluent consistent with the monitoring requirements established for other spray irrigation facilities in Maine.

Monitoring well temperature data submitted to the Department by HWC for the period of September 2007 through July 2010 ranges from 42 degrees Fahrenheit to 52 degrees Fahrenheit with an arithmetic mean of 46 degrees Fahrenheit (#DMRs = 5) and no increasing trend.

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

- i. Total Metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc) – The previous licensing action established a screening level (one test within the 12-month period prior to license expiration) metals monitoring and reporting requirement for lagoon effluent and ground water monitoring wells. Metals data for lagoon effluent were not available in the permit compliance system database as of the effective date of this license. Metals data (2009) for the ground water monitoring well are as follows:

Arsenic: <1 ppb	Cadmium: <1 ppb	Chromium: <1 ppb
Copper: 2 ppb	Lead: <1 ppb	Nickel: 2 ppb
		Zinc: <5 ppb

To address all metals data are available prior to issuance of the next renewal license for this facility, this licensing action is revising the metals testing requirements to the forth calendar quarter of the forth year of the license. The Department reserves the right to reopen this license in accordance with Special Condition Q based on new information provided by the licensee.

6. SYSTEM CALIBRATION

Discharge rates, application rates and uniformity of application change over time as equipment gets older and components wear, or if the system is operated differently from the assumed design. Operating below design pressure greatly reduces the coverage diameter and application uniformity (resulting in increased ponding). For these reasons, the licensee shall field calibrate their equipment on a regular basis to ensure proper application and uniformity, and when operating conditions are changed from the assumed design.

Calibration involves collecting and measuring flow at several locations in the application area (typically a grid pattern of containers with uniform diameters). Rain gauges work best because they already have a graduated scale from which to read the application amount without having to perform additional calculations.

7. RECEIVING WATER QUALITY CONDITIONS

The Department has no information as of the date of this licensing action that ground water down gradient from the spray irrigation field does not meet the standards of its assigned classification.

8. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

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

9. PUBLIC COMMENTS

Public notice of this application was made in the Houlton Pioneer Times newspaper on or about March 24, 2010. 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 licenses shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to *Application Processing Procedures for Waste Discharge Licenses*, 06-096 CMR 522 (effective January 12, 2001).

10. DEPARTMENT CONTACTS:

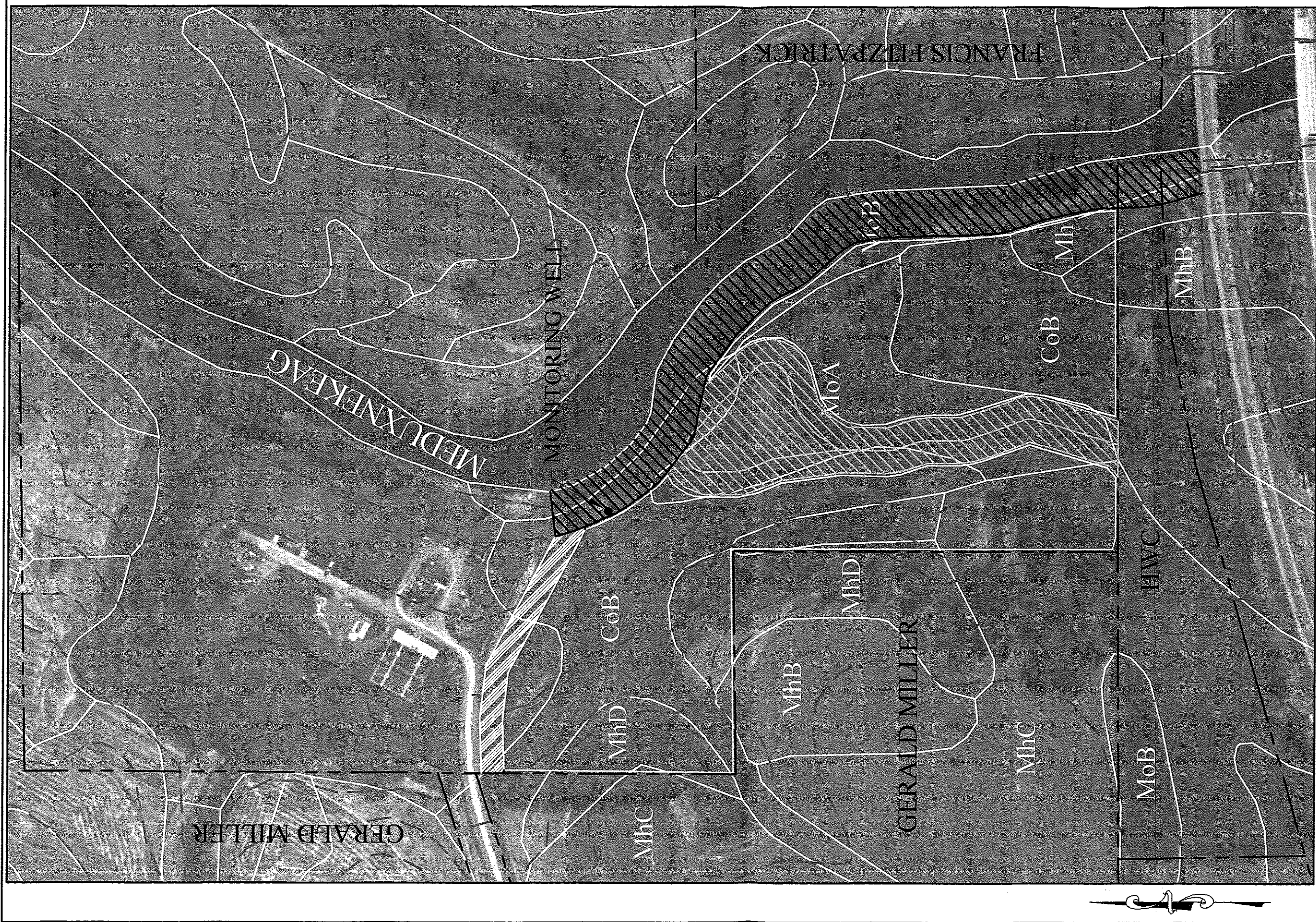
Additional information concerning this licensing action may be obtained from, and written comments sent to:

Bill Hinkel
Division of Water Quality Management
Bureau of Land & Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 485-2281
bill.hinkel@maine.gov

11. RESPONSE TO COMMENTS

During the period of October 25, 2010 through November 29, 2010, the Department solicited comments on the proposed draft Waste Discharge License to be issued to Houlton Water Company for the spray irrigation facility discharge. The Department did not receive significant comments on the draft license; therefore, a response to comments was not prepared. It is noted that minor changes were made to Sections 2.d (wastewater treatment description) and 5.f (nitrate-nitrogen data summary) of the draft Fact Sheet.

ATTACHMENT A



LEGEND

- PROPERTY LINES
- CONTOURS
- 100 FT. RIVER SETBACK
- 50 FT. DRAINAGE SWALE SETBACK
- 50 FT. ACCESS ROAD & DITCH SETBACK

SOIL BOUNDARY
SPRAY IRRIGATION AREA

- NOTES:
1. NO BEDROCK OUTCROPS IN AREA.
 2. NO WETLANDS AS DEFINED BY MAINE NATURAL AREAS PROGRAM & MAINE STATE PLANNING OFFICE.

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ATTACHMENT B

STATE OF MAINE

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Bureau of Land & Water Quality, Division of Environmental Assessment

Water Quality Monitoring Plan Details

For projects required to monitor the quality and/or levels of surfacewater or groundwater, a water quality monitoring plan/protocol document must be provided as a separate manual, for ease-of-reference by the applicant, consultants, and the Department. This manual must be prepared, signed, and dated by a professional qualified in water chemistry interpretation (*and when groundwater flow interpretations and monitoring well selection are conducted to prepare the plan, endorsed by a Certified Geologist*), and must include the following, at a minimum:

1. Identification/summary of all monitoring points (*e.g. monitoring wells, lysimeters, springs, etc.*) to be used for measurement of water levels or for water quality analysis. Monitoring points must have an assigned identification symbol (*alpha/numeric*), and, where appropriate, elevation referenced to an established, permanent benchmark. Include a map showing all monitoring points.
2. Outline of the monitoring frequency at each monitoring point, by the number of sampling/analysis events per year (*e.g. quarterly, etc.*) and by month (*e.g. April, September, etc.*).
3. Provision for obtaining adequate data on background water quality and/or levels, and for using a statistically-valid method for determining a significant increase in parameter concentrations (*e.g. contamination levels, but not necessarily MCL's/MEG's*). At a minimum, determination of background water quality or levels must consist of quarterly sampling/analysis for 1 year.
4. List of parameters to be analyzed, including references to the laboratory analysis methods to be utilized for each parameter, detection limits for each analysis method, and the MCL's/MEG's for all applicable parameters. All monitoring must include field parameters (*conductivity, temperature, pH, and TDS*), in addition to parameters specific to the monitoring program objectives.
5. Identification of the qualified personnel to take water level measurements and water quality analysis samples. These tasks should not be done by the applicant or employee of the applicant, but if proposed, then item 6 below must be addressed.
6. Written certification from a qualified expert that personnel to conduct monitoring are or will be adequately trained to properly collect measurements and/or samples by approved methods and protocols.

- 7.** Description of the equipment and methods to be employed for water level measurement and/or water quality analysis sample-taking.
- 8.** Description of the quality assurance/quality control and chain-of-custody protocols to be followed for water quality sampling, preservation, storage, transport, and laboratory analysis.
- 9.** Provision for a professional qualified in water chemistry or groundwater flow interpretation to summarize, evaluate, and provide recommendations on the monitoring results that is submitted annually to the Department, unless a problem is evident, in which case the Department is to be notified immediately. Annual reports must include historical, as well as the most recent year's monitoring data for each monitoring point, which is presented in a tabular format. Reports must be signed/dated by the professional responsible for their preparation.
- 10.** A provision that, if water levels or water quality monitoring results indicate adverse effects are occurring as a result of the project activity, then an evaluation will be made by a qualified professional and an appropriate remedial action/mitigation plan will be developed and submitted to the Department for re-view and approval.

STANDARD CONDITIONS OF POTW WASTE DISCHARGE LICENSES
REVISED 7/16/96

1. General Conditions

- A. All discharges shall be consistent with the terms and conditions of this license; 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 license; it shall be a violation of the terms and conditions of this license 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 license.
- B. The licensee shall permit the Department of Environmental Protection Staff upon the presentation of proper credentials:
 - (1) To enter upon licensee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this license;
 - (2) To have access to and copy any records required to be kept under the terms and conditions of this license;
 - (3) To inspect any monitoring equipment or monitoring method required in this license; or,
 - (4) To measure and/or sample at any intake, process or cooling effluent stream, waste water treatment facility and/or outfall.
- C. This license shall be subject to such monitoring requirements as may be reasonably required by the Department of Environmental Protection including the installation, use and maintenance of monitoring equipment or methods (including, where appropriate, biological monitoring methods). The licensee shall provide the Department of Environmental Protection with periodic reports on the proper Department of Environmental Protection reporting form of monitoring results obtained pursuant to the monitoring requirements contained herein.
- D. This license does not preclude obtaining other required Federal, State or Municipal permits and does not authorize or approve the construction of any on-shore physical structures or facilities or the undertaking of any work in any navigable waters.

- E. The issuance of this license does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to public or private property or any invasion of personal rights nor any infringement of Federal, State or local laws or regulations.
- F. Nothing in this license shall be construed to relieve the licensee from civil or criminal penalties for non-compliance, whether or not such non-compliance is due to factors beyond the licensee's control, such as accident, equipment breakdown, labor disputes or natural disaster.

2. Pretreatment Requirements

- A. The licensee shall comply with all Federal Statutes, regulations, and conditions of permits applicable to its discharge of waste waters, including, but not limited to, those requiring the installation of pretreatment facilities or establishment of pretreatment programs.
- B. Municipal or quasi-municipal licenses shall maintain user contracts, permits or ordinances to regulate industrial entities which discharge process waste water to the licensee's treatment facilities in quantities greater than 10% of the facility's design capacity. Such contracts, permits or ordinances shall be submitted to the Department for approval within three months of the effective date of this license or prior to acceptance of new or increased volumes of industrial waste water. All such contracts, permits or ordinances shall be an enforceable part of this license whether or not approved by the Department.

3. Waste water Treatment and Sampling Facilities

- A. The licensee shall collect all waste flows designated by the Department of Environmental Protection as requiring treatment and discharge them into an approved waste treatment facility in such a manner as to maximize removal of pollutants unless authorization to the contrary is obtained from the Department.
- B. The licensee 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 waste waters.
- D. Final plans and specifications must be submitted to the Department of Environmental Protection and approved prior to the construction or modification of any treatment facilities.
- E. The licensee shall install flow measuring facilities of a design approved by the Department of Environmental Protection.

- F. The licensee must provide an outfall of a design approved by the Department of Environmental Protection which is placed in the receiving waters in such a manner that maximize mixing and dispersion of the waste waters will be achieved as rapidly as possible.

4. Non-Compliance Notification

- A. In the event the licensee bypasses collection or treatment facilities or is unable to comply with any of the conditions of this license due, among other reasons, to:

- (1) breakdown of waste treatment equipment;
- (2) accidents caused by error or negligence;
- (3) high strength, high volume or incompatible wastes; or
- (4) other causes such as acts of nature,

the licensee shall notify the Department of Environmental Protection verbally as soon as its agents have knowledge of the incident.

- B. Within five (5) days of becoming aware of such condition the licensee shall provide the Department of Environmental Protection in writing, the following information:

- (1) A description of the discharge and cause of non-compliance; and
- (2) The period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the non-complying discharge.

- C. If the licensee knows in advance of changes in licensed facilities or activities which may result in non-compliance or of the need to bypass, it shall submit prior notice at least ten days in advance of such occurrence.

- D. In the event a bypass is due to inflow or infiltration of uncontaminated water into a sewer system, reporting requirements may be adjusted by the Department to a monthly basis.

5. Monitoring and Reporting

A. 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 licensee 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.

B. Test Methods

The sampling, preservation, handling, and analytical methods used must conform with Standard Methods for the Examination of Water and Waste Waters, American Public Health Association, 1015 18th Street, N.W., Washington, D.C. 20036, latest approved edition, or methods referenced in 40 CFR Part 136, Guidelines Establishing Test Procedures for Analysis of Pollutants. However, different but equivalent methods are allowable if they receive the prior written approval from the Department of Environmental Protection.

- (1) All reports shall be submitted to the Department not later than the fifteenth of the month following the end of the monitoring period.
- (2) Any reports or records of monitoring activities and results shall include for all samples: (a) the date, exact place, and time of sampling; (b) the dates and times of analyses; (c) the analytical techniques/methods used, including sampling, handling, and preservation techniques; and (d) the results of all required analyses.

C. All reports shall be signed by:

- (1) In the case of corporations, a principal executive officer of at least the level of vice president, or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the reporting form originates.
- (2) In the case of a partnership, a general partner or duly authorized representative.
- (3) In the case of a sole proprietorship, the proprietor or duly authorized representative.
- (4) In the case of a municipal, State, or other public facility, either a principal executive officer, ranking elected official, or duly authorized employee.

6. Change of Discharge

The licensee shall notify the Department in writing as soon as it has knowledge of any significant changes or proposed changes in its discharge, including but not limited to:

- A. the temporary or permanent termination of the discharge;
- B. changes in the waste collection, treatment or disposal facilities;
- C. changes in the volume or character of waste water flows;
- D. permanent changes in industrial production rates;
- E. the proposed addition, directly or indirectly, of toxic pollutants not authorized by the license or reflected in the application filed with the Department;
- F. the addition to a municipal or quasi-municipal treatment system of industrial wastes which are categorically regulated by the U.S. EPA pursuant to the agency's pretreatment program.

7. Transfer of Ownership

In the event that any person possessing a license issued by the Department shall transfer the ownership of the property, facility or structure which is the source of a licensed discharge, without transfer of the license being approved by the Department, the license granted by the Department shall continue to authorize a discharge within the limits and subject to the terms and conditions stated in the license, provided that the parties to the transfer shall be jointly and severally liable for any violation thereof until such time as the Department approves transfer or issuance of a waste discharge license to the new owner. The Department may in its discretion require the new owner to apply for a new license, or may approve transfer of the existing license upon a satisfactory showing that the new owner can abide by its terms and conditions.

8. Records Retention

All records and information resulting from the monitoring activities required by this license including all records of analyses performed and calibration and maintenance of instrumentation shall be retained for a minimum of three (3) years.

9. 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

(1) 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

(2) known to be hazardous or toxic by the licensee.

B. The discharge of such materials will not violate applicable water quality standards.

10. 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 of Environmental Protection.

11. Bypass of Waste Treatment Facilities

The diversion or bypass of any discharge from facilities utilized by the licensee to maintain compliance with the terms and conditions of this license is prohibited, except (1) where unavoidable to prevent loss of life or severe property damage, or (2) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the terms and conditions of this license. The licensee shall notify the Department of Environmental Protection of each such diversion or bypass in accordance with the procedure specified in paragraph 6 above for reporting non-compliance. It is the duty of the licensee to take all feasible steps to prevent, minimize and mitigate bypasses. If infiltration or inflow of stormwater or ground water contribute to bypasses, the licensee shall submit to the Department for approval, a wet weather flow management plan. The plan shall describe measures implemented to maximize the volume of flow through the treatment facilities and the efficiency of the treatment process. Submission of this plan shall not remove any responsibilities of the licensee pursuant to paragraph 6.

12. Emergency Action-Electric Power Failure

Within thirty days after the effective date of this license, the licensee shall notify the Department of Environmental Protection of facilities and plans to be used in the event the primary source of power to its waste water pumping and treatment facilities fails. During power failure, all waste waters 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 waste water facilities.

DEFINITIONS

FOR THE PURPOSE OF THIS LICENSE THE FOLLOWING SHALL APPLY

- A. Grab Sample: An individual sample collected in a period of less than 15 minutes.
- B. Composite Sample: A sample consisting of a minimum of eight grab samples collected at equal intervals during a 24-hour period (or a lesser period if specified in the section on Monitoring and Sampling) and combined proportional to flow or a sample continuously collected proportionally to flow over the same time period.
- C. Daily Maximum For Concentration: The maximum value not to be exceeded at any time.
- D. Daily Maximum For Quantity: The maximum value not to be exceeded during any day.
- E. Weekly or Monthly Average: The sum of all daily samples measurement or test results made during a week or month divided by the number of tests or measurement made during the respective time period. Exception: bacteriological tests shall be calculated as a geometric mean.
- F. Bypass: The diversion of waste water, either by act or by design, from any portion of a treatment facility or conveyance system.

WMUNCIPL



DEP INFORMATION SHEET

Appealing a Commissioner's Licensing Decision

Dated: May 2004

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. This INFORMATION SHEET, in conjunction with consulting statutory and regulatory provisions referred to herein, can help aggrieved persons with understanding their rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

DEP's *General Laws*, 38 M.R.S.A. § 341-D(4), and its *Rules Concerning the Processing of Applications and Other Administrative Matters* (Chapter 2), 06-096 CMR 2.24 (April 1, 2003).

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written notice of appeal within 30 calendar days of the date on which the Commissioner's decision was filed with the Board. Appeals filed after 30 calendar days 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 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 and the applicant a copy of the documents. All 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

The materials constituting an appeal must contain the following information at the time submitted:

1. *Aggrieved Status.* Standing to maintain an appeal requires the appellant to show they are particularly injured by 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 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 as part of an appeal only when 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 show 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, Section 24(B)(5).

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license file is public information 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.* An applicant proceeding with a project pending the outcome of an appeal 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 initiation of the appeals procedure, including the name of the DEP project manager assigned to the specific appeal, within 15 days of receiving a timely filing. The notice of appeal, all materials accepted by the Board Chair as additional evidence, and any materials submitted in response to the appeal will be sent to Board members along with a briefing and recommendation from DEP staff. Parties filing appeals and interested persons are notified in advance of the final 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. The Board will notify parties to an appeal and interested persons of its decision.

II. APPEALS TO MAINE SUPERIOR COURT

Maine law allows aggrieved persons to appeal final Commissioner licensing decisions to Maine's Superior Court, see 38 M.R.S.A. § 346(1); 06-096 CMR 2.26; 5 M.R.S.A. § 11001; & MRCivP 80C. Parties to the licensing decision must file a petition for review within 30 days after receipt of notice of the Commissioner's written decision. A petition for review by any other person aggrieved must be filed within 40-days from the date the written decision is rendered. The laws cited in this paragraph and other legal procedures govern the contents and processing of a Superior Court appeal.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, contact the DEP's Director of Procedures and Enforcement at (207) 287-2811.

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.
