STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

DAVID P. LITTELL

COMMISSIONER

JOHN ELIAS BALDACCI GOVERNOR

August 13, 2007

Joseph & Michelle Letts P.O. Box C 286 Back Ridge Road East Orland, Maine 04431

RE:

Permit Compliance System Tracking Number (PCS) # MEU507874

Maine Waste Discharge License (WDL) Application # W007874-5J-C-R

Final License

Dear Mr. & Ms. Letts:

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 this matter, please feel free to call me at 287-7693.

Sincerely

Division of Water Quality Management Bureau of Land and Water Quality

Enc.

cc:

Clarissa Trasko, DEP/EMRO

Sandy Lao, USEPA

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

DEPARTMENT ORDER

IN THE MATTER OF

LETTS RELAX, INC)	PROTECTION AND IMPROVEMENT
ORLAND, HANCOCH	COUNTY, MAINE)	OF WATERS
SURFACE WASTE W	ATER DISPOSAL SYSTEM)	
MEU507874)	WASTE DISCHARGE LICENSE
W007874-5J-C-R	APPROVAL)	RENEWAL

Pursuant to the provisions of 38 M.R.S.A., Section 414-A et seq., and applicable regulations, the Department of Environmental Protection (the Department hereinafter) has considered the application of the LETTS RELAX, INC (d/b/a Balsam Cove Campground) with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

The licensee has filed an application with the Department to renew Waste Discharge License (WDL) #W007874-5J-B-R, which was issued by the Department on June 24, 2002 and expired on June 24, 2007. The application is for the continuing operation of a surface waste water disposal (spray-irrigation) system for the treatment and seasonal disposal of sanitary waste water that is generated at a rate of 3,000 gallons per day from the Balsam Cove Campground in Orland, Maine. The facility has been assigned number MEU507874 for license compliance tracking purposes.

LICENSE SUMMARY

This license is similar to the June 24, 2002 WDL in that it is carrying forward from the previous licensing action:

- 1. With respect to the waste water treatment lagoon; effluent sampling for biochemical oxygen demand (BOD), nitrate-nitrogen, and total kjeldahl-nitrogen (TKN) on a twice per year monitoring frequency.
- 2. With respect to the spray irrigation discharge, weekly application rates and monitoring total gallons applied.
- 3. With respect to ground water monitoring wells, depth to water level below land surface, nitrate-nitrogen, and specific conductance.
- 4. General operational and spray irrigation operational constraints and the requirement for submittal of an annual spray irrigation performance report after the conclusion of the spray irrigation season.

LICENSE SUMMARY

This license is different from the June 24, 2002 WDL in that it is:

- 1. Eliminating the daily and hourly spray irrigation discharge limits as other operational constraints address concerns with excessive application rates.
- 2. Requiring the person in responsible charge of the spray irrigation system to be certified by the Department in the operation of waste water treatment facilities (refer to Special Condition B of this license).
- 3. Revising the prohibition against spray irrigation if there has been more than 0.5 inches of precipitation within the previous 24-hour period to a prohibition against irrigation if there has been more than 1.0 inch of precipitation within the previous 24-hour period.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated June 28, 2007, 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.

ACTION

THEREFORE, the Department APPROVES the above noted application of the LETTS RELAX, INC, (d/b/a Balsam Cove Campground) to operate a surface wastewater disposal system to discharge at a rate of 1.2 inches per acre per week (32,582 gallons per acre per week) over a 0.81- acre spray irrigation area, SUBJECT TO THE FOLLOWING CONDITIONS, and all applicable standards and regulations including:

- 1. Standard Conditions of Industrial Waste Discharge Licenses (revised 8/14/96), copy attached.
- 2. The attached Special Conditions, including effluent limitations and monitoring requirements.
- 3. This license expires five (5) years from the date of signature, below.

DONE AND DATED AT AUGUSTA, MAINE, THIS 13TH DAY OF AUGUST, 2007.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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BY:			L:	G ₂		
	David P. Littell,	Com	nission	er		

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application:	 May 11, 2	2007			- ÷
Date of application acceptance:	 May 14, 2	2007			<u>.</u>
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		AUG	1 4	2007	
	L BO	ARD OF FI	AMORIVI	AEMTAL PR	OT.

Date filed with Board of Environmental Protection ___

This Order prepared by Gregg Wood, BUREAU OF LAND & WATER QUALITY

W78745JD

8/13/07

A. LIMITATIONS AND MONITORING REQUIREMENTS

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

Effluent Characteristic	Discharge Lim	nitations	Minimum Monitoring Requirements		
	Weekly <u>Average</u> as specified	Daily <u>Maximum</u> as specified	Measurement <u>Frequency</u> as specified	Sample <u>Type</u> as specified	
Biochemical Oxygen Demand		Report mg/L	Twice/Year ⁽²⁾	Grab	
[00310]		[19]	[02/YR]	[GR]	
Nitrate-Nitrogen		Report mg/L	Twice/Year ⁽²⁾	Grab	
[00620]		[19]	[02/YR]	[GR]	
Total Kjeldahl-Nitrogen (TKN)		Report mg/L	Twice/Year ⁽²⁾	Grab	
[00625]		[19]	[02/YR]	[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 page 7 of this license.

A. LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

2. During the period beginning the effective date of the license, the licensee is authorized to operate a surface waste water treatment and disposal system. The **SPRAY AREA (SA1)** shall be limited and monitored as specified below.

April 15 - November 15

Effluent Characteristic	Discharge	Limitations	Minimum Monitoring Requirements		
	Monthly We Total Ave as specified as specified		Measurement <u>Frequency</u> as specified	Sample <u>Type</u> as specified	
	[MP]	[WC]		·	
Application Rate (Weekly) (3,4)		26,391 Gallons ⁽⁵⁾	1/Week	Calculate	
[51125]		[57]	[01/07]	[CA]	
Total Gallons Applied	Report (Gallons)		1/Month	Calculate	
[00095]	[57]		[01/30]	[CA]	

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 page 7 of this License

Note: The spray irrigation area was moved from its previously licensed area (previously designated as SF1) to an area upgradient and adjacent to the waste water lagoon and is approximately ¼ mile from the previous location. The new spray area consists of eight spray heads arrayed along two lateral lines with four spray heads on each line and is now designated as SA1 to distinguish the two different areas. The spray nozzles are each designed to distribute waste water from the center of a circle that has a diameter of 75 feet. The spray area is comprised of approximately 0.81 acres.

A. LIMITATIONS AND MONITORING REQUIREMENTS

3. During the period beginning the effective date of the license, the licensee is authorized to operate a surface wastewater treatment and disposal system. The **GROUND WATER MONITORING WELL(S)** (MW1, SAIW1, SAIW2, AND SAIW3) shall be limited and monitored as specified below.

Effluent Characteristic Discharge Limitations Minimum Monitoring Requirements Weekly Daily Measurement Sample Frequency Type Average Maximum as specified as specified as specified as specified Report (feet)⁽⁶⁾ Twice/Year⁽⁷⁾ Depth to Water Level Below Measure Landsurface [72019] [27] [02/YR] [MS] 10 mg/L⁽⁸⁾ Twice/Year⁽⁷⁾ Nitrate-Nitrogen Grab [00620] [19] [02/YR] [GR] Report (umhos/cm)^(9,10) Twice/Year⁽⁷⁾ Specific Conductance Grab [00095] [02/YR] [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 page 7 of this license.

A. LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUED)

Footnotes - [Special Condition A(1), A(2) & A(3)]

Lagoon Effluent

- (1) Lagoon effluent shall be sampled as it exits the lagoon to be sprayed and shall be representative of what is actually sprayed on the spray-irrigation field.
- (2) Lagoon effluent sampling shall be conducted in **July and August** of each calendar year in accordance with federally approved methods for sampling, handling and preservation. Samples shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services and in accordance with methods approved by 40 Code of Federal Regulations (CFR) Part 136.

Note: The licensee is not required to test for these parameters during a month(s) where no wastewater was disposed of via the spray irrigation system. If no waste water is disposed of in July and/or August, then sampling shall occur in any two months in which the spray system is operational between April and November.

Spray-Irrigation Fields

- (3) The licensee shall measure the flow of wastewater to the irrigation area by the use of a meter or pump calibration data.
- (4) Weekly is defined as Sunday through Saturday. If a week spans two different months, the weekly data shall be evaluated and reported in the month in which the week ends.
- (5) For Discharge Monitoring Report (DMR) reporting purposes, the licensee shall report the highest weekly and daily application rate for the month in the applicable box on the form. See Special Condition I for additional reporting requirements for weekly application rates.

Groundwater Monitoring

- (6) Measured to the nearest one-tenth of a foot as referenced from the surface of the ground at the base of the monitoring well.
- (7) Ground water sampling shall be conducted in the months of **May and September** of each year in accordance with Department approved methods for sampling, handling, and preservation. Samples shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services and in accordance with methods approved by 40 Code of Federal Regulations (CFR) Part 136.
- (8) National Primary Drinking Water Standard Maximum Contamination Level (MCL).
- (9) Temperature calibrated to 25.0° C.
- (10) Specific Conductance values greater than 275 umhos/cm, consistent trends approaching 275 umhos/cm or sudden spikes from previous levels shall be reported immediately to the Department, and may necessitate the need for additional ground water testing requirements. (This note is to be added to the comments section of the DMR).

B. TREATMENT PLANT OPERATOR

This treatment facility must be operated by a person holding a minimum of a Maine **Grade SITS-I** certificate (or a Maine Professional Engineer [P.E.]) pursuant to Title 32 M.R.S.A., Section 4171 et seq and Department Rule Chapter 531. All proposed contracts for facility operation by any person must be approved by the Department prior to the licensee engaging the services of the contract operator.

C. MONITORING AND REPORTING

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report Forms provide by the Department and postmarked on or before the thirteenth (13th) day of the month and submitted in a timely fashion such that the DMR's are received by the Department on or before the fifteenth (15th) day of the month following the completed reporting period. A signed copy of the Discharge Monitoring Report and all other reports required herein shall be submitted to the Department's facility inspector at the following address:

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

D. AUTHORIZED DISCHARGES

The licensee is authorized to discharge treated sanitary wastewater only in accordance with the terms and conditions of this license and only to the existing spray irrigation field (#SA1) and from those sources as indicated in the Waste Discharge License Application. Discharge of wastewater from any other location or from sources other than those indicated on said application requires formal modification of this license.

The collection, treatment or discharge of wastewater which has constituents unlike that or significantly higher in strength than that of domestic wastewater is prohibited without formal modification of this license.

E. NARRATIVE EFFLUENT LIMITATIONS

- 1. The effluent shall not contain materials in concentrations or combinations which would impair the usages designated by the classification of the groundwater.
- 2. Notwithstanding specific conditions of this license the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

F. NOTIFICATION REQUIREMENT

In accordance with Standard Condition of this license, the licensee shall notify the Department of the following.

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

G. GENERAL OPERATIONAL CONSTRAINTS

- 1. All waste waters shall receive pretreatment through septic tanks and a properly designed, operated and maintained lagoon system prior to land irrigation.
- 2. The spray irrigation facilities shall be effectively maintained and operated at all times so that there is no discharge to surface waters, nor any contamination of ground waters which will render them unsatisfactory for normal usage as a public drinking water supply.
- 3. The surface waste water disposal system shall not be the cause of 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 pursuant to Maine Law 22 M.R.S.A. § 2601.

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

G. GENERAL OPERATIONAL CONSTRAINTS (cont'd)

- 4. The Department shall be notified as soon as the licensee becomes aware of any threat to public health, unlicensed discharge of waste water, or any malfunction that threatens the proper operation of the system, and action taken to repair/correct, and prevent recurrence. Notification shall be made in accordance with the attached Standard Conditions of this license.
- 5. 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. Septic tanks shall be accessible for inspections and pumping. Risers shall be installed as necessary.
- 6. All system components including collection pipes, tanks, manholes, pumps, pumping stations, spray disposal fields, and monitoring wells shall be identified and referenced by a unique system identifier in all logs and reports.

H. SPRAY IRRIGATION OPERATIONAL CONSTRAINTS

- 1. The licensee shall be limited by and monitor the spray irrigation system for the parameters in the table titled "Effluent Limitations and Monitoring Requirements" Special Condition A(2) of this license at the monitoring frequency specified.
- 2. The maximum wastewater application rate shall not exceed 32,582 gallons per acre on a weekly basis. Note: 1 acre-inch is equivalent to 27,152 gallons
- 3. Irrigation shall be limited to the time period between **April 15 and November 15** each calendar year. Compliance with other operational constraints must be maintained at all times.
- 4. A suitable year-round vegetative cover shall be maintained and wastewater may not be applied to areas without established vegetation or ground cover (organic matter) covering at least 75% of the surface of the ground.
- 5. Irrigation events shall be scheduled, timed and interrupted so that:
 - No surface runoff occurs during irrigation from the spray area;
 - There must be at least 10 inches of separation between the ground surface and the ground water table at the time of spray irrigation events. The root zone shall not be completely saturated at the conclusion of irrigation;
 - And, the effects of evaporation from the soil and transpiration by plants AKA evapotranspiration as influenced by temperature (soil & air), wind, relative humidity and sunlight are maximized.

H. SPRAY IRRIGATION OPERATIONAL CONSTRAINTS (cont'd)

- 6. The licensee shall manage irrigation to prevent surface water runoff and shall not irrigate land areas when water is ponded on the land surface for longer than 15 minutes at a time.
- 7. No wastewater shall be applied to the site following a rainfall or precipitation accumulation exceeding 1.0 inch within the previous 24-hour period. A rain gauge shall be located on site to monitor daily precipitation.
- 8. No wastewater shall be applied where there is snow present on the surface of the ground.
- 9. No wastewater shall be applied when there is frost within the upper 18 inches of the soil profile.
- 10. No traffic or equipment shall be allowed in the spray-irrigation field except where installation occurs or where normal maintenance is performed.

I. SPRAY IRRIGATION OPERATIONAL PROCEDURES, LOGS AND REPORTS

- 1. At least one week prior to the commencement of spray irrigation for the season, the licensee shall notify the Department's compliance inspector that they have verified that conditions, are appropriate (absence of frozen ground, soil drainage, moisture conditions, etc) for spray irrigation.
- 2. Each day prior to irrigating, the licensee shall visually inspect (or have another suitable Department approved method for assessing) the spray irrigation site to determine if area conditions are appropriate for spraying and all the operational constraints listed above are met.

Observations may include:

- The level of free water in an auger hole, a nearby well, or observation pit;
- Methods for estimating the amount of water present in the soil, either by feel or soil moisture measurement devices;
- Current and past weather conditions (such as when and how much precipitation has occured, potential for evapo-transpiration as influenced by temperature, wind, and relative humidity).
- 3. Within one hour after start-up of the spray-irrigation system and at the conclusion of the spray-event, the licensee shall walk the spray irrigation site, or have some other suitable Department-approved method, to check the system for leakage in the piping system and determine if individual sprayheads and pump(s) are functioning as designed, and verify that application rates are appropriate for the existing site conditions. Should significant malfunctions or leaks be detected, the licensee must shut down the portion of the spray system malfunctioning and make necessary repairs before resuming operation of the spray system. An irrigation cycle shall be stopped if runoff or ponding occurs.

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

4. The licensee shall maintain a daily log of all spray irrigation operations which records, date, weather and soil conditions, rainfall, lagoon freeboard (top of lagoon to the water surface), areas irrigated, volume sprayed (gallons), application rates (daily and hourly), 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.

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. Depth to water below land surface observed in monitoring wells shall be reported in accordance with the format of the "Depth to Ground Water" provided as Attachment "C" of this license.

The daily operational logs and weekly spray application reports for each month shall be submitted to the Department as an attachment to the monthly Discharge Monitoring Reports (DMR's). Copies will also be maintained on site for Department review and for license operation maintenance purposes.

J. VEGETATION MANAGEMENT

- 1. The licensee shall remove vegetation in the spray-irrigation areas as necessary as not to impair the operation of the spray-irrigation system and to ensure uniform distribution of wastewater over the desired application area.
- 2. The vegetative buffer zones along the perimeter of the site shall be maintained to maximize vegetation and forest canopy density in order to minimize off-site drift of spray.

K. LAGOON MAINTENANCE

- 1. The banks of the lagoon shall be inspected weekly during the operating season and properly maintained. There shall be no overflow through or over the banks. Any signs of leaks, destructive animal activity or soil erosion of the berms shall be repaired immediately. The Department shall be notified by phone immediately and then in writing within five (5) days of such incidents documenting the corrective action(s) that were taken to eliminate the overflow.
- 2. Annual maintenance of the banks of the lagoon shall be conducted to keep them free of woody vegetation and other vegetation that may be detrimental to the integrity of the berm and or lagoon liner.
- 3. The waters within the lagoon shall be kept free of all vegetation (i.e. grasses, reeds, cattails, etc) that hinders the operation of the lagoon.

K. LAGOON MAINTENANCE (cont'd)

- 4. The lagoon shall be dredged as necessary to maintain the proper operating depths that will provide best practicable treatment of the wastewater. All material removed from the lagoon(s) shall be properly disposed of in accordance with all applicable State and Federal rules and regulations.
- 5. At the end of each spray season, the lagoon shall be lowered to a level sufficient to allow for storage of precipitation and/or infiltration during the period the spray system is not being used and/or operated.
- 6. The licensee shall maintain the lagoon freeboard at design levels or at least two (2) feet whichever is greater. Freeboard measured to the nearest tenth of a foot, shall be reported on the daily operational logs as the mathematical difference between the water level in the lagoon and the lowest elevation point on the lagoon at both the beginning and end of spray irrigation.

L. SEPTIC TANKS

- 1. All septic tanks shall be watertight and tanks must be constructed of materials approved by the Department and in accordance with the *Maine Subsurface Wastewater Disposal Rules*. Metal septic tanks are prohibited.
- 2. Inlet and outlet connections of each septic tank or compartment shall be designed to obtain effective retention of scum and sludge. All connections and baffles shall be fastened with and constructed of, or coated with, corrosion resistant materials.
- 3. Septic tanks and other treatment tanks shall be regularly inspected (at least once per calendar year) and maintained to ensure that they are providing best practicable treatment. Reports of the results of the inspection shall include the amount of sludge build-up, baffle conditions, etc., and shall be reported to the Department's compliance inspector prior to the end of the month following the inspection.
- 4. Tank contents should be removed whenever the sludge and scum occupies one-third of the tank's liquid capacity or whenever levels approach maximum design capacity.

M. DISPOSAL OF SEPTAGE WASTE IN WASTEWATER TREATMENT FACILITY

The licensee is prohibited from accepting septage for disposal into any part or parts of the wastewater disposal system. Septage shall mean any waste, refuse, effluent, sludge or other material removed from a septic tank, cesspool, vault privy or similar source which concentrates wastes or to which chemicals have been added.

Discharge of recreational vehicle holding tank waste shall occur only at designated location(s) as indicated in the Waste Discharge application and access to these location(s) shall be controlled. The quantities of waste received and the results of the visual inspections shall be recorded in a log and reported annually to the Department. Each load shall be

M. DISPOSAL OF SEPTAGE WASTE IN WASTEWATER TREATMENT FACILITY

visually inspected for signs of chemicals or toxic materials that could be harmful to the biological treatment process. The log shall also include some means of verification that the recreational vehicle is or has been in fact an inhabitant of the campground Any waste containing such materials inadvertently added to the system (either intentionally or unintentionally) shall be reported to the Department immediately.

N. INSPECTIONS AND MAINTENANCE

- 1. All inspections shall include an evaluation of any repair, upgrades, pumping, operational and/or maintenance needs.
- 2. The inspection report or log shall include the date of the inspection, the names of the person performing the inspection, and other relevant system operations.
- 3. Maintenance logs shall be maintained for each system component including pumps, pump stations, septic tanks, lagoons, spray apparatus, and pipes. At a minimum, the log shall include the alphanumeric ID, the date of maintenance, type of maintenance performed, names or person performing the maintenance, and other relevant system observations.

O. PUMPING STATIONS

- 1. The collection system shall be operated with a duplex pump system, or with standby pumps and motors on-site.
- 2. There shall be a high-level detection system with a highly visible red light or audio warning system in the event of the malfunction. The level detection system in the tank shall be set to activate at a level that will leave ample capacity in the pump tank in order to make repairs and/or activate the standby pump.
- 3. Employees shall be trained to report activated alarms to the licensee as soon as possible.
- 4. A manual check of the operation of the pump, testing all level controls, switches and alarms shall be performed and recorded at least once per month during the operation of the surface disposal system.

P. PUMPING (SOLIDS REMOVAL FROM SEPTIC TANKS, PUMPING STATIONS, AND OTHER TREATMENT TANKS)

- 1. The licensee shall keep a pumping log including the date of pumping, quantity of material removed (solids % capacity), name and number of licensed contractor, pumping frequency and other relevant observations.
- 2. Following pumping, the tanks shall be checked for damage at key joints and the inlet and outlet baffles, and repaired promptly if damaged.

Q. SUBMITTAL OF ANNUAL SPRAY IRRIGATION PERFORMANCE REPORT

By January 31st of each calendar year** the licensee shall submit to the Department for review, an annual report of the treatment system's performance covering the previous calendar year (January 1 to December 31). The annual report shall include any standard reporting form(s) developed by the Department (PCS codes 90199, 90299, 90399, 90499, 90599).

The annual report shall include, but is not necessarily limited to, the following topics:

- Yearly totals and monthly summaries of the number of days sprayed, spray volumes and average application rates for the previous calendar year and a trend analysis for the previous five-year period.
- Septic Tank Inspection & Pumping Log.
- Summary of significant maintenance activities and repairs.
- Additions/Deletions to the System.
- A listing of all wastewater overflow including pumping station, manhole and building backups for the previous calendar year.
- System performance evaluation in regards to compliance with the terms and conditions of the license.
- Any system calibrations performed during the calendar year
- The report shall be dated and signed by the operator in responsible charge.
- ** The Department will prompt the licensee and the facility inspector in the comment section of the Discharge Monitoring Report (DMR) issued in December of each calendar year that the Annual Spray Irrigation Performance Report is due January 31st.

[This note to be added to the comments section of the DMR]

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

The licensee shall operate the treatment facility in accordance with an approved operational and maintenance plan that describes step-by-step how the surface wastewater disposal system is operated and maintained and what measures or standard operating procedures that will ensure compliance with the terms and conditions of this license.

The operational and maintenance plan shall include 11" x 17" site plan(s) (to scale) of the lagoon and spray irrigation areas. The plan shall include, but not limited to showing the location of the lagoon(s), ground water monitoring wells, observation pits, spray irrigation pump station(s), layout of the mainline and lateral piping distribution system, individual spray heads, soil types, and contour lines at 20 foot intervals or less. Also, any property boundary or surface water within 500 feet of the lagoon or spray irrigation field. All system components shall be identified by unique alphanumeric identifiers.

It shall be the responsibility of the licensee to keep the plans current over the course of the license, and for the plans to reflect any modifications or additions to the system. If significant changes to the operations and maintenance plan are warranted, the licensee shall inform the Department facility inspector in writing and within 10 days of implementing said actions. The plans shall be kept on-site at all times and made available to the Department upon request.

S. PUBLIC ACCESS TO LAND APPLICATION SITES AND SIGNAGE

Public access to the land application sites shall be controlled during the season of active site use. Such controls shall include the posting of signs showing the activities being conducted at each site.

The licensee shall install and maintain signs measuring at least 8 ½" x 11" around the perimeter of the lagoon and spray irrigation site that inform the general public that the area is being used to dispose of sanitary wastewaters. Each sign must be placed such that at least two other signs (one left, one right) may be seen from any one posted sign. The signs must be constructed of materials that are weather resistant.

The licensee must inspect or walk the perimeter of the lagoon and spray site prior to the beginning of each spray season and make any necessary repairs to the signage to comply with this condition.

T. GROUND WATER MONITORING WELLS

All monitoring wells shall be equipped with a cap and lock to limit the access and shall be maintained in a secure state at all times. 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 not to be representative of groundwater conditions.

U. REOPENING OF PERMIT MODIFICATIONS

Upon evaluation of any required test results, results of inspections and/or reporting required by the Special Conditions of this licensing action, additional site specific or any other pertinent information or test results obtained during the term of this license, the Department may, at anytime and with notice to the licensee, modify this license to require additional monitoring, inspections and/or reporting based on the new information.

V. 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 this 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.

Gallons/Acre (inches)(Col G divided by I) Total Quanity-Name of Field(s) Used Acres Sprayed WEATHER PRECIP WIND-Soil Moisture Day Date Direction/ Total Temp Gallons Inches (Sum of Col H x Area of Each Inches Pumped Field) Speed 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 Monthly Total =

Spray Application Report by Week

Balsam Cove Campground, W007874-5J-C-R

Field Name/#	Effective Spray Area (Acres)	Weekly Limit (Gallons/Acre)		Actual Spray Application Rates (Gallons per Acre)					Monthly Average
			Week 1	Week 2	Week 3	Week 4	Week 5		
						-	·		·
<u> </u>				· · · · · · · · · · · · · · · · · · ·					-
Note: 1 acre-inch is equivalent to 27,150 gallons of liquid 27,150 gallons per acre is equivalent to 1.0 inch			ıid		Total Number Exceptions				
A spr size i	ay-field's wee n acres of that	kly application rate portion of the spray	if the total g	allons sprayed d.	l I (Sunday th	rough Saturda	y) divided b	y the size of the spra	ay-field in ac
ature of	Responsible C	official:					Date		

Depth to Groundwater ((Tenths of Feet)
------------------------	------------------

Attachment C

(Month	, Year	

Facility Name: Balsam Cove Campground W007874-5J-C-R

Field Name/#	Monitoring Location	_	o Groundwat sured From (Number of Exceptions	Monthly Average Depth			
		Week 1	Week 2	Week 3	Week 4	Week 5		
				······				
								· · · · · · · · · · · · · · · · · · ·
		1		Tota	l al Number of I	Exceptions		
Special Co	ndition U of th	a I jagnas v os:	sires that a day	oth of 10 implies	a from the a	und gurface t-	the amount desertes	table must be present
ig.	линон п от ш	e dicense requ	mies mai a dej	our or 10 mene	s nom me gro	una surface to	me groundwater	table must be present
	onsible Official						e	

MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: June 28, 2007

PERMIT COMPLIANCE TRACKING SYSTEM NUMBER: MEU507874

LICENSE NUMBER: W007874-5J-C-R

NAME AND MAILING ADDRESS OF APPLICANT:

LETTS RELAX, INC.
dba BALSAM COVE CAMPGROUND
Attn: Joseph & Michelle Letts
P.O.Box C
286 Back Ridge Road
East Orland, ME 04431

COUNTY:

Hancock County

NAME AND ADDRESS OF FACILITY:

286 Back Ridge Road Orland, ME 04431

RECEIVING WATER/ CLASSIFICATION:

Groundwater /Class GW-A

COGNIZANT OFFICIAL AND TELEPHONE NUMBER:

Joseph & Michelle Letts

207-469-7771

1. APPLICATION SUMMARY:

a. Application: The licensee has filed an application with the Department to renew Waste Discharge License (WDL) #W007874-5J-B-R, which was issued by the Department on June 24, 2002 and expired on June 24, 2007. The application is for the continuing operation of a surface waste water disposal (spray-irrigation) system for the treatment and seasonal disposal of sanitary waste water that is generated at a rate of 3,000 gallons per day from the Balsam Cove Campground in Orland, Maine. See Attachment "A" of this Fact Sheet for a location map for the campground. The facility has been assigned number MEU507874 for license compliance tracking purposes.

1. APPLICATION SUMMARY (cont'd)

b. <u>History</u>: Recent Department licensing actions include the following:

1969 The campground was constructed. The Department issued WDL #W007874-YA-A-N, which April 6, 1995 renewed the surface waste water disposal system for the disposal of waste water generated at the campground. The WDL expired on April 6, 2000. David R. and Catherine Bennett sold Balsam Cove Campground April 10, 1995 to Sharon Richardson and Charles Young. June 24, 2002 The Department issued WDL #W007874-5J-B-R which renewed the license to discharge waste water generated at the Balsam Cove Campground facility. May 11, 2007 Application for renewal of the WDL was received by the Department. The application was subsequently accepted by the

c. Source Description:

The applicant operates a recreational camp on the west shore of Toddy Pond in the Town of Orland. Waste water generated is similar in characteristics to typical domestic residential waste water. The applicant reports that the campground currently has 60 camp sites (with seven sites accommodating recreational vehicles) served by centralized shower, toilet and laundry facilities. A waste water dump station and a campground office/store are also located on site.

Department for processing on May 14, 2007.

d. Waste Water Treatment (Spray-Irrigation):

The applicant treats sanitary wastewater through a slow rate land irrigation system (sprayirrigation). Prior to spraying, the wastewater receives pretreatment through a septic tank that has a 2,000 gallon capacity, a pump station with a 500 gallon capacity, and a stabilization lagoon. See Attachment "B" of this Fact Sheet is a schematic of the waste water treatment system provided by the applicant. The lagoon was designed (with a working capacity of 470,000 gallons and a depth of 5 feet) to provide ample over-winter storage capacity for net winter precipitation over the non-irrigation period of time (267,217 gallons). From the lagoon, effluent is pumped up the hill to the adjacent spray irrigation area. The spray irrigation area consists of two parallel lateral lines each containing four spray nozzles (for a total of eight [8] nozzles) that are equally spaced 75 feet on center. The lateral lines are separated by 100 feet from the other lateral spray distribution line. The licensee maintains a pumping log including the date of pumping, duration of pumping cycle, calculations of quantity pumped, and calibration information to ensure the volume of waste water pumped does not exceed limits in the license.

1. APPLICATION SUMMARY (cont'd)

e. Site Conditions:

The lagoon and spray irrigation area are located on a gentle slope about 2,000 feet west of Toddy Pond, the nearest water body. Soils at the site are characterized as Brayton fine sandy loam, a poorly drained soil that is suitable for spray irrigation for waste water disposal during the dryer periods of time that this licensing action authorizes spray irrigation. The site is underlain by glacial till material of reported low hydraulic conductivity. The spray irrigation area is mostly wooded with a mixed hardwood canopy predominated with beech, birch and maple species.

2. CONDITIONS OF THE LICENSE

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

3. RECEIVING WATER QUALITY STANDARDS

Maine law, 38 M.R.S.A § 470 indicates the groundwater at the point of discharge is classified as Class GW-A receiving waters. Maine law, 38 M.R.S.A., §465-C describes the standards for Class GW-A waters as the highest classification of groundwater 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.

4. TREATMENT

Slow rate land irrigation treatment is an environmentally sound and appropriate technology for best practicable treatment and disposal of sanitary waste water. 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.

5. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

a. Monitoring Parameters – Effluent monitoring parameters are being carried forward from the previous licensing action. Monitoring for these parameters provides an indication of the effectiveness of the lagoon treatment process and the condition of the waste water being applied to the land via spray irrigation. Lagoon monitoring is being required twice per year when waste water is being disposed of via the spray irrigation system. Well monitoring is required whether or not spray irrigation occurs.

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

Biochemical Oxygen Demand (BOD) – Monitoring for BOD provides an indication of the condition of the waste water being applied from the lagoon, of the degree of loading of organic material and the effectiveness of the spray irrigation treatment process. A limit of 100 mg/L is generally established at larger spray irrigation facilities as a best practicable treatment (BPT) standard, however, in this licensing action the Department is carrying forward the requirement to report BOD levels in the lagoon effluent. During the past five years the lagoon effluent discharged has ranged between 3.0 to 27 mg/L with an average value of 17 mg/L. Sampling for BOD is required twice yearly in the months of August and September when waste water is disposed of via the spray irrigation system

Nitrate-Nitrogen & Total Kjeldahl-Nitrogen – Nitrogen compounds are by-products of the biological breakdown of ammonia and are inherent in domestic-like sanitary waste water. Because nitrate-nitrogen is weekly absorbed by soil, it functions as a reliable indicator of contamination from waste disposal sites. Elevated levels of nitrate-nitrogen in drinking water supplies are human health concerns. The nitrate-nitrogen limit of 10 mg/L is a National Primary Drinking Water standard is being carried forward from the previous licensing action for the monitoring wells. During the past five years lagoon effluent levels have been consistently at 0.1 mg/L. Also during the same period, nitrate samples of ground water monitoring wells have also reportedly been consistently 0.1 mg/. Total Kjeldahl Nitrogen (TKN)samples of the lagoon effluent ranged between 3.1 to 32 mg/L with an average value of 20 mg/L. Lagoon effluent sampling for nitrate-nitrogen and TKN is required twice annually in the months of July and August when waste water is disposed of via the spray irrigation system. Sampling of the monitoring wells for the nitrate-nitrogen parameter is required twice yearly in the months of May and September.

Specific Conductance – is considered to be a "field" parameter meaning that it is measured directly in the field via instrumentation and does not require laboratory analysis. This parameter is considered to be a surveillance level monitoring and is used as an early warning indicator of potential ground water contamination when there exists a trend in the data (or when consistent trends approach 275 umhos/cm, or sudden spikes from previous levels). During the past five years, monitoring well conductance has ranged between 27 umhos/cm to 387 umhos/cm with an average value of 155 umhos/cm. Sampling of the monitoring wells for this parameter is required twice yearly in the months of May and September whether of not spray irrigation occurs. For purposes of this license, specific conductivity may be measured in the laboratory (normally a field parameter) as long as Department approved methods for handling and preservation of the sample are adhered to and analysis is performed in accordance with methods approved by 40 Code of Federal Regulations (CFR) Part 136.

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

In addition, the licensee shall report immediately to the Department specific conductance values greater than 275 umhos/cm**, consistent trends approaching 275 umhos/cm or sudden spikes from previous levels, which may necessitate the need for additional groundwater testing requirements.

**Groundwater levels of specific conductance would normally be expected to be substantially lower and this concentration may indicate insipient failure or a water quality problem and was chosen as an early warning level.

b. Design Flow:

Waste Water Generation: The spray irrigation area and lagoon were designed to treat flows generated at a rate of 3,000 gallons per day (gpd) of sanitary waste water during the summer camp season. Using State Plumbing Code guidelines and the approximate camp population served by the system, the estimated flow from the camp appears to fall well within the 3,000 gpd. It is noted that the season for the camp extends from May through October, for a total of 22 weeks of operation. Given an assumed generation of 3,000 gpd and 22 weeks of operation, the total amount of waste water that is generated equals 462,000 gallons of waste water to be disposed (3,000 gpd X 7 days per week X 22 weeks of operation).

Waste Water Disposal: During the past five years the licensee has reported to the Department weekly average spray irrigation application rates ranging between a low of 6,000 to a high value of 42,000 gallons, with an average weekly spray irrigation rate of 22,694 gallons per day.

The spray irrigation area covers 0.81 acres of land area. It is noted that the spray irrigation season extends from April 15th through November 15th of each year, for a total of 31 weeks duration. During that 31 week duration, the licensee is authorized to discharge a maximum of 1.2 inches per week per acre or up to 32,582 gallons per week per acre, or a total of (32,582 gallons per week X 31 weeks) up to 1,010,042 gallons per acre or 810,000 gallons over the 0.81 acre spray area over the course of the season.

The lagoon covers approximately 0.30 acres of land area. During normal years, precipitation totals approximately 40 inches per year, however, in a typical landscape approximately ½ runs off the ground surface and the other half either infiltrates into the ground or evaporates. This licensing action assumes, in the lagoon watershed, that there is no runoff from the lagoon catchment area and no infiltration into the ground below the lagoon due to the bentonite liner. Approximately one-fourth of the 40 inches of precipitation evaporates or 10 inches evaporates, leaving 30 inches of net precipitation that would accumulate in the lagoon area., and would need to be addressed in the lagoon water balance. An area of 0.30 acres accumulating 30 net inches of precipitation would amount to 244,000 gallons (0.30 acres X 43,560 square feet per acre X 2.5 feet [30 inches] multiplied by 7.48 gallons per cubic foot) net precipitation that needs to be discharged from the lagoon catchment area. Given a peak generation level assumed to be up to 462,000 gallons and the net precipitation of 244,000 gallons, the system would need to be

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

able to discharge a total of 706,000 gallons. Since the system is authorized to discharge a total of 810,000 gallons, the system has the capacity to discharge more than the amount of gallons than is generated, thus there is ample capacity and flexibility for the system to treat the generated waste water flow.

The daily and hourly maximum irrigation rates from the previous licensing action are being eliminated as there are redundant spray irrigation constraints to provide a margin of safety against hydraulically overloading the spray area during any spray event.

	License Limit	Equivalent Inches	Based on total spray area of 0.81 acres**
Application Rate (weekly)	32,582 gallons/acre	1.2 inches	26,391 gallons per week

^{**} Eight (8) spray heads with a spray irrigation radius of 75 feet each

Note: 1 acre-inch is equivalent to 27, 152 gallons

The operator is responsible charge of the surface waste water disposal system has confirmed the disposal area remains at 0.81 acres and there are no plans as of the date of this licensing action to expand the facility.

A review of the DMR data for the period June 2003 – October 2006 indicates the licensee may have misinterpreted the application rates expressed in gallons/acre [emphasis added] in the table in Special Condition A(1) of the 12/20/02 license as the number of gallons applied to the land were to be pro-rated based on the number of acres. Since the disposal field remains at 0.81 acres, and to avoid any future misunderstanding of the applicable limitations, this licensing action is establishing the weekly average limit at 26,391 gallons/week.

Regardless of the calculated rate, the system operator shall monitor each waste application to verify adequate infiltration of the waste into the soil and an irrigation cycle should be stopped if runoff or ponding start to occur.

c. Groundwater Monitoring Wells

The Department generally requires a minimum of three monitoring wells for monitoring surface wastewater disposal (spray-irrigation) systems. One well is typically installed upgradient from the lagoon to monitor ambient groundwater conditions, one well installed down-gradient from the lagoon to monitor lagoon leakage, and one well installed down gradient from the spray field to monitor effects on the groundwater from the spray operation. Four ground water monitoring wells currently exist on site and are shown on Attachment "B" of this Fact Sheet. The monitoring wells are located more or less hydrogeologically down gradient from the lagoon (MW1) and also in the spray irrigation area along the lateral lines. They are identified as SAIW1, SAIW2, and SAIW3.

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 should 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. Attachment "C" of this Fact Sheet entitled "Example Spray-Irrigation Field Calibration Report Form" is provided as an aid to the licensee in the re-calibration process. It is recommended that this form or similar form be submitted to the Department Compliance Inspector shortly after re-licensing and annually thereafter, or whenever operating conditions are changed from the assumed design.

7. GREASE TRAPS

Although not specifically required by this licensing action, it is the Department's recommendation that any food preparation facility or dining halls serviced by the sprayirrigation treatment system have an external grease interceptor preceding the septic tank, to help facilitate best practicable treatment and ensure proper functioning of the septic tank(s). Grease interceptors should be inspected by the licensee at least two times per year and the tank cleaned when the volume of the grease equals more than 50% of the capacity of the tank. Note: Any food preparation facilities connected to "subsurface" systems are required to have external grease interceptors preceding the septic tanks in accordance with the State of Maine Subsurface Wastewater Disposal Rules.

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 Bucksport Weekly News Enterprise newspaper on or about May 10, 2007. 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 Chapter 522 of the Department's rules.

10. DEPARTMENT CONTACTS:

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

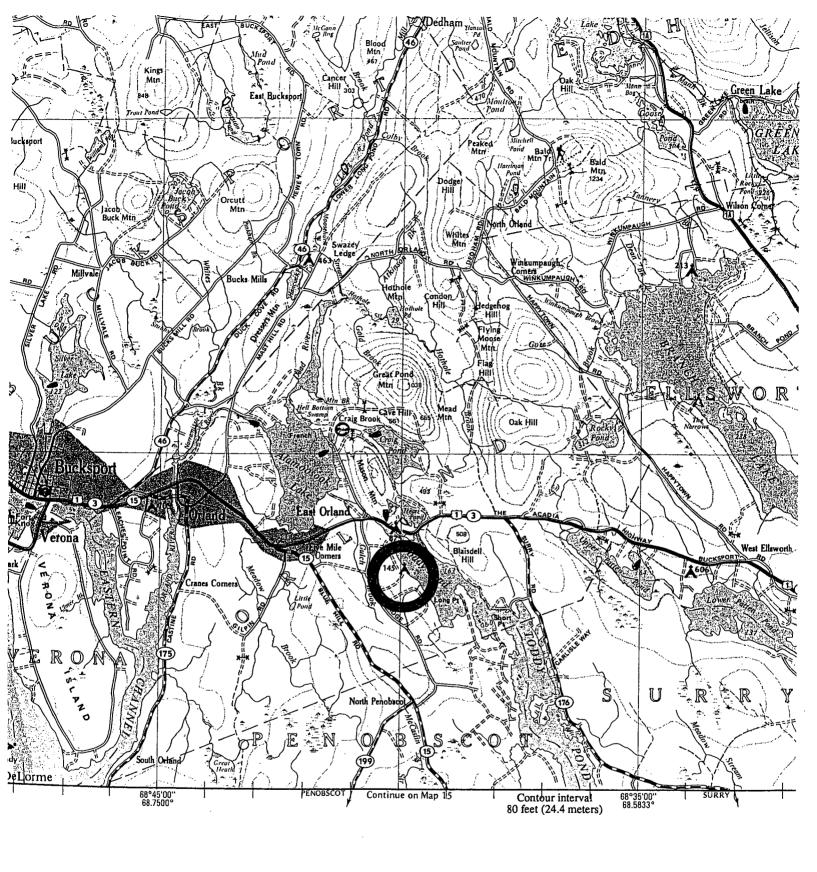
Gregg Wood
Division of Water Quality Management
Bureau of Land and Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017
Telephone (207) 287-7693
Email: gregg.wood@maine.gov

11. RESPONSE TO COMMENTS

During the period June 28, 2007, through the issuance date of this license, the Department solicited comments on the proposed draft license to be issued for the discharge(s) from the Balsam Cove Campground operation. 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 license. Therefore, the Department has not prepared a Response to Comments.

ATTACHMENT A

ATTACHMENT B



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