STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

Patty Rae Stanley
Stanley Patten Pond LLC
1219 State Highway #3
Bar Harbor, Maine 04609

December 29, 2006

RE: Permit Compliance System Tracking Number # MEU503294
Maine Waste Discharge License (WDL) Application # W003294-5J-E-R
Final License

Dear Ms. Stanley:

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.*"

Sincerely,

David Silver
Division of Water Quality Management
Bureau of Land and Water Quality

Enc. Clarissa Trasko, DEP/EMRO
Sandy Lao, USEPA
Andrea Burke, Acheron Engineering, 147 Main St, Newport, ME 04953

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

DEPARTMENT ORDER

IN THE MATTER OF

STANLEY PATTEN POND, LLC	)	PROTECTION AND IMPROVEMENT
ELLSWORTH, HANCOCK COUNTY, MAINE	)	OF WATERS
SURFACE WASTEWATER DISPOSAL SYSTEM	)	
#MEU503294	)	WASTE DISCHARGE LICENSE
#W003294-5J-E-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 (Department) has considered the application of STANLEY PATTEN POND, LLC with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

The applicant has applied for a renewal of Waste Discharge License (WDL) #W003294-5J-C-R, which was issued on June 26, 2001 and expired on June 26, 2006. The application is for the continuing operation of a lagoon and spray irrigation wastewater disposal system on a 1.6 acre site for the treatment and seasonal disposal of sanitary wastewater, generated at a rate of 16,000 gallons per day and authorized to be disposed of at a rate of 2.5 inches per week per acre at the spray irrigation area on the Stanley Patten Pond, LLC waste water disposal facility in Ellsworth, Maine.

RENEWAL SUMMARY

The facility has been assigned number MEU503294 for license compliance tracking purposes in the Department's Permit Compliance System (PCS).

The most significant conditions imposed by this licensing action include:

1. Revising limitations and monitoring requirements for the spray fields along with certain operational constraints in order to provide consistency across similar facilities licensed by the Department;
2. Requiring the submittal of a Spray-Irrigation Performance Report as an exhibit to the application for license renewal.
3. Requiring the licensee to maintain an up-to-date Operational and Maintenance Plan.
4. Requiring the installation of signage around the perimeter of the lagoon and spray irrigation sites.
5. Revising the spray irrigation season to a time frame of April 15 – November 15 of each year.

This license differs from the previous licensing action in that it:

(a) expands the spray irrigation season from May 1st through October 31st to April 15th through November 15th of each year,

(b) deletes the hourly application rate limits,

(c) modifies lagoon effluent monitoring requirements by including lagoon levels (freeboard) measurements on a once per week frequency,

(d) modifies lagoon effluent monitoring for BOD, TSS, and Nitrate-Nitrogen to monthly sampling frequency during those months when spray irrigation occurs,

(e) reduces the ground water monitoring well sampling requirements by eliminating the requirement to sample and report concentrations of Total Kjeldahl Nitrogen, Chemical Oxygen Demand, and Total Phosphorus,

(f) includes the requirement for sampling the groundwater monitoring wells for certain inorganic elements on a once per five year basis (must be sampled during the first year of this license and as an attachment for renewal [during the last 12 months of the license], then every five (5) years thereafter),

(g) modifies the requirement to not spray when there has been a rainfall accumulation exceeding 0.5 inches within the previous 24 hour period (to a requirement not to spray when rainfall exceeds 1.0 inch in the preceding 24 hour period),

(h) modifies the pH requirement be limited to values between 6.0 to 8.5 standard units (S.U.) to between 6.0 to 9.0 S.U. as measured in ground water monitoring wells.

This license is similar to the previous licensing action in that it carries forward all other monitoring requirements and operational requirements, such as monitoring frequency in the ground water monitoring wells twice per year.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated November 29, 2006, 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 STANLEY PATTEN POND, LLC, to operate a surface wastewater disposal system to discharge up to 2.5 inches per acre per week (up to 67,875 gallons per acre per week, or up to 108,600 gallons over the 1.6 acre spray irrigation area, per week) SUBJECT TO THE FOLLOWING CONDITIONS, and all applicable standards and regulations including:

1. Standard Conditions of Industrial Waste Discharge Licenses (Revised August 14, 1996), 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 28th DAY OF December, 2006.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
David P. Littell, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: April 7, 2006

Date of application acceptance: April 10, 2006

FILED
DEC 28 2006
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE

Date filed with Board of Environmental Protection _____

This Order prepared by David Silver, BUREAU OF LAND & WATER QUALITY

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS

1. The licensee is authorized to operate a surface waste water treatment and disposal system. The **LAGOON MONITORING (OUTFALL #001)** [(1)] shall be limited and monitored as specified below.

	Daily Maximum as specified	**Minimum Measurement Frequency** As specified	**Sample Type** as specified
Lagoon Influent**	Report, Gallons	1/Day	Meter
[50050]	*[8G]*	*[01/01]*	*[MT]*
Lagoon Level (Freeboard)**	Report, Feet	1/Week	Measure
[82564]	*[27]*	*[01/07]*	*[MS]*
pH (Standard Units) [(2)]	6.0 – 9.0	---	---
[00400]			
Biochemical Oxygen Demand (Lagoon Effluent)	100 mg/L	1/Month[(2)]	Grab
[00310]	*[19]*	*[01/30]*	*[GR]*
Total Suspended Solids (Lagoon Effluent)	100 mg/L	1/Month[(2)]	Grab
[00530]	*[19]*	*[01/30]*	*[GR]*
Nitrate-Nitrogen (Lagoon Effluent)	Report mg/L	1/Month[(2)]	Grab
[00620]	*[19]*	*[01/30]*	*[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.

Notes: See page 8 of this License. Lagoon influent shall be metered and recorded. Lagoon Level (Freeboard) shall be reported as the number of feet (nearest 0.1 feet) between the lagoon water level and the lowest elevation of the lagoon berms. For reporting on the DMR form, the minimum freeboard level shall be recorded. If freeboard is less than three (3) feet, then measurement frequency shall be once per day. pH range shall not exceed the values expressed above.

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS

2. Application of waste water to the land via a spray irrigation system shall be limited to the time frame of April 15th – November 15th of each year. The **SPRAY IRRIGATION AREAS (SI #1)** shall be limited and monitored as specified below.

	Monthly Total as specified	**Weekly Maximum** as specified	**Daily Maximum** as specified	**Minimum Measurement Frequency** as specified	**Sample Type** as specified
Application Rate (Weekly) (4) *[01287]*	---	67,880 gal/acre/week(5) (2.5 in/acre/week) *[8B]*	---	1/Day *[01/01]*	Calculate *[CA]*
Flow - Total Gallons(3) *[82220]*	Report (Gallons) *[80]*	---	---	1/Month *[01/30]*	Measure *[MS]*

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 8 & 9 of this License

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS

3. The licensee shall monitor **GROUND WATER MONITORING WELLS; GWM-1, GWM-2, GWM-3, & GWM-4**** shall be limited and monitored as follows:

Monitoring Parameters	**Daily Maximum as specified**	**Minimum Measurement Frequency as specified**	**Sample Type as specified**
Depth to Water Level Below Landsurface *[72019]*	Report (feet)(6) *[27]*	2/Year(7) *[02/YR]*	Measure *[MS]*
Nitrate-Nitrogen *[00620]*	10 mg/L *[19]*	2/Year(8) *[02/YR]*	Grab *[GR]*
Chloride (Total) *[00940]*	250 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]*
Inorganics (Total): Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel and Zinc *[01002, 01027, 01034, 01042, 01051, 71900, 01067, 01092]*	Report ug/L *[28]*	1/5 Years(8) *[01/5Y]*	Grab *[GR]*

FOOTNOTES: - See page 8 / 9 of this license

Note**GWM-4 was shown on plans previously submitted to the Department, however, the well apparently had not been installed nor sampled, therefore collection of samples from that location are not required as part of this license unless subsequent groundwater monitoring plan review indicates that a monitoring well should be part of the overall monitoring plan. **Until this well is installed, it is appropriate for the licensee to enter "NODI-9" on the DMR forms for this well.** See Section R of this license for further information on this plan to be submitted to the Department.

SPECIAL CONDITIONS
A. LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUED)

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

Lagoon Effluent

1. Lagoon effluent shall be sampled (sampling location is the sampling port on the effluent pipe leading from the lagoon pumphouse 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. Sampling and analysis must be conducted in accordance with: (a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, (b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or (c) as otherwise specified by the Department.
2. Lagoon parameters/effluent shall be sampled in any month when spray irrigation occurs in accordance with approved methods for sampling, handling and preservation (see footnote #1). Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services. Licensee is required to maintain lagoon effluent between 6.0-9.0 standard units at any time. This licensing action does not require sampling and reporting of pH, however the licensee may be required to demonstrate compliance with this pH range at any time upon request from Department staff.
3. The licensee shall measure the flow of waste water to the irrigation area. The methodology shall be checked for calibration at least once per calendar year.

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 size in acres of that portion of the field utilized. Note: 27,152 gallons is equivalent to one inch-acre. 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 and the monthly total discharge. 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 – [Special Condition A(1), A(2) & A(3)] (Cont'd)

Ground Water Monitoring

6. Measured to the nearest one-tenth ($1/10^{th}$) of a foot as referenced from the surface of the ground at the base of the monitoring well.

7. Depth to water level below land surface shall be conducted in the months of **May, and October** of each calendar year.

8. **Groundwater sampling shall be conducted in the months of May and October** of each calendar year (except for inorganics testing which shall occur in the first year of the license and results shall be submitted with the DMR form by December 15th of this year and as an attachment to an application for renewal of the WDL). Sampling, handling and preservation shall be conducted in accordance with federally approved methods (see footnote #1). Specific conductance (calibrated to 25.0° C), pH and temperature are considered to be a "field" parameters and are generally to be measured in the field via instrumentation (please see Fact Sheet page 8). The licensee is required to test for these parameters whether wastewater was disposed of via the spray-irrigation system or not. 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.

B. TREATMENT PLANT OPERATOR

This treatment facility must be operated by a person holding a minimum of a **Grade SITS-I** certificate (or a Maine Professional Engineer [P.E.]) pursuant to Title 32 M.R.S.A., Section 4171 et seq. 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 (**April through November**) 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 (13^{th}) day of the month or hand-delivered to the Department's Regional Office** such that the DMR's are **received by the Department on or before the fifteenth (15^{th}) day of the month** following the completed reporting period. A signed copy of the DMR and all other reports required herein shall be submitted, unless otherwise specified, to the Department's facility inspector at the following address:

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

SPECIAL CONDITIONS

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 areas (SI#1) and from those sources as indicated in the Waste Discharge License Application. Discharge of waste water to any other location or from sources other than those indicated on said application is not authorized under this license.

E. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent shall not contain materials in concentrations or combination that would impair the uses designated by the classification of the groundwater.
2. 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 #6 of this license, the licensee shall notify the Department of the any substantial change in the volume or character of pollutants being introduced into the wastewater collection and treatment system. For the purposes of this section, notice regarding substantial change shall include information on:

(a) the quality and quantity of wastewater introduced to the wastewater collection and treatment system; and,

(b) any anticipated impact caused by 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 the properly designed, operated and maintained tanks and lagoon system prior to disposal via spray 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 usage as a public drinking water supply.
3. The surface waste water disposal system shall not cause lowering of the quality of the ground water, 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. § 2611. In the event groundwater monitoring indicates adverse effects, 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, or ceasing operation of the system until the ground water attains applicable standards.

SPECIAL CONDITIONS

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 wastewater, or any malfunction that threatens the proper operation of the system, and shall be notified of any action taken to repair/correct, and prevent recurrence. Any such notification shall be made in accordance with the attached Standard Conditions #4 and 5 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 identifier (alphabetic, numeric or alpha-numeric) in all logs and reports.

H. SPRAY IRRIGATION OPERATIONAL CONSTRAINTS

1. Suitable vegetative cover shall be maintained. Waste water may not be applied to areas without sufficient vegetation or ground cover as to prevent either erosion or surface water runoff outside the designated boundaries of the spray fields.
2. At least 10 inches of separation from the ground surface to the ground water table must be present prior to spraying.
3. There shall be no ponding within the spray area or runoff outside the designated spray field boundaries as a result of operation of the spray system.
4. No waste water shall be applied to the site following a rainfall accumulation exceeding 1.0 inches 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.
5. No waste water shall be applied where there is snow present on the surface of the ground.
6. No waste water shall be applied when there is frost within the upper 10 inches of the soil profile.
7. No traffic or equipment shall be allowed in the spray-irrigation field except where installation occurs or where normal operations and maintenance is performed.

SPECIAL CONDITIONS

I. SPRAY IRRIGATION OPERATIONAL PROCEDURES, LOGS AND REPORTS

1. **Each day prior to irrigating,** the licensee shall visually inspect the spray irrigation site to determine if the soil moisture conditions are appropriate for spraying and all the operational constraints listed in Special Condition H above are met.

2. 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. **Within one hour after start-up of the spray-irrigation system,** the licensee shall walk the spray irrigation site (and maintenance staff will also periodically monitor the spray equipment throughout the day), ***or*** have some other means to check the system for leakage in the piping system and determine if individual spray heads 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 malfunctioning portion of the spray system and make necessary repairs before resuming operation of the spray system. The licensee shall cease irrigation if ponding or runoff is observed outside the designated boundaries of the spray irrigation area.

3. The licensee shall maintain a daily log of all spray irrigation operations which records, the 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. 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 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 waste water over the desired application area and optimize nutrient uptake and removal.

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.

SPECIAL CONDITIONS

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.

2. 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. Certain mature pines located on a portion of the berm have been determined to not be detrimental and may remain in place.

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.

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. The licensee shall maintain the lagoon freeboard at design levels or at least two (2) feet whichever is greater. The lagoon shall be operated in such a way as to balance the disposal of waste water via spray irrigation, including the necessary storage capacity for precipitation, to ensure that design freeboard levels are maintained.

L. SEPTIC TANKS

1. The (nine-2,000 gallon and two-1,500 gallon) septic treatment tanks and other holding or treatment tanks shall be regularly inspected (at least once per calendar year) and maintained to ensure that they are providing best practicable treatment.

2. 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 whichever is less. Following pumping, the tanks shall be checked for damage at key joints and the inlet and outlet baffles, and repaired promptly if damaged. The licensee shall keep a pumping log including the date of pumping, quantity of material removed, name and number of licensed contractor, pumping frequency and other relevant observations. The logs must be kept current and available to the Department for inspection upon request.

M. DISPOSAL OF SEPTAGE WASTE IN WASTE WATER TREATMENT FACILITY

The licensee is prohibited from accepting septage for disposal into any part or parts of the waste water 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.

SPECIAL CONDITIONS

N. 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, septic tanks, lagoons, spray apparatus, and pipes. At a minimum, the logs shall include the specific location of the maintenance, the date of maintenance, type of maintenance performed, names or person performing the maintenance, and other relevant system observations.

O. SPRAY IRRIGATION PERFORMANCE & LAGOON LEAKAGE REPORT

As an exhibit to the next application for license renewal, the licensee shall submit to the Department a report of the treatment system's performance covering the previous four calendar years. **(PCS code 90199)**. The report shall be dated and signed by the operator in responsible charge of the system.

The report shall include, but is not necessarily limited to, an updated source description, an updated schematic and narrative of the treatment system and distribution system, a soils monitoring report, a summary of the past performance demonstrating compliance with all terms and conditions of the effective license, a description of any proposed changes in the overall system or operation of the system, and if applicable, proposed changes in the effective license.

On or before March 15, 2007 (PCS code 00199), the licensee shall submit for review and approval to the Commissioner of the Department, a report that responds to the lagoon leakage assessment performed by the Department on February 6, 2002 (copy attached to the license) in demonstrating compliance with the previously established allowable leakage rate of 500 gallons per acre per day (refer to the Fact Sheet – History for more information on this issue). ***The report must include analysis and adequacy of the groundwater monitoring program to assess impacts from lagoon leaks or operation of the spray irrigation system (as referenced in Section R of this License).***

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

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 systems of treatment and control (and related appurtenances) which are installed or used by the licensee to achieve compliance with the conditions of this permit.

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

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

SPECIAL CONDITIONS

Q. 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. The licensee shall install 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 waste waters. 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 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.

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

1. **By November 15, 2007 (PCS Event 22099), the licensee shall submit to the Department for review and approval, an updated revised groundwater quality monitoring plan.** ***The plan shall include assessment of the number of wells necessary to determine adequacy of the wells installation (location, construction details, screened intervals, etc) in sampling groundwater quality in the vicinity of the lagoon and spray irrigation area (in order to determine if the lagoon leaks excessively and/or if the operation of the spray irrigation area has caused or will likely detect future possible impacts to ground water quality [or results in groundwater that does not satisfy drinking water standards]).*** The plan shall utilize the guidelines as outlined in an attachment to the Fact Sheet of this license entitled "Water Quality Monitoring Plan Details".
2. All monitoring wells shall be equipped with a cap and lock to limit access and shall be maintained in a secured state at all times.
3. The Department reserves the right to require increasing the depth of and/or relocating any groundwater monitoring well if the well is dry or is determined by the Department to be not representative of groundwater conditions.

S. 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.

T. 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.

Monthly Operations Log **Attachment A** **(Month/Year)** _____)

WDL # W003294-5J-E-R; Fields #_____ Weekly Application Rate: 67,880 gallons/acre (2.5 inches)

	A	B	C	D	E	F	G	H	I	J	K
Day	DATE	PRECIP Inches	TEMP	WEATHER	WIND-Direction Speed	Soil Moisture	Quanity-Total Gallons Pumped	Name of Field(s) Used	Acres Sprayed (Sum of Col H x Area of Each Field)	Gallons/Acre (inches) (Col G divided by I)	Total Inches
	1										
	2										
	3										
	4										
	5										
	6										
	7										
	8										
	9										
	10										
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	25										
	26										
	27										
	28										
	29										
	30										
	31										
Monthly Total =											

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

WDL # W003294-5J-E-R; (Month _____, Year _____) Weekly Application Rate 67,880 gallons/acre (2.5 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 _____

Depth to Groundwater (Tenths of Feet) **Attachment C** (Month _____, Year _____)

Facility Name: Stanley Patten Pond LLC; WDL #W003294-5J-E-R;

Field Name/#	Monitoring Location	4. 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 G of the License requires that a depth of 10 inches from the ground surface to the groundwater table must be present prior to spraying.

Signature of Responsible Official: _____, Date _____

MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: November 29, 2006

PERMIT COMPLIANCE TRACKING SYSTEM NUMBER: **MEU503294**
LICENSE NUMBER: **W003294-5J-E-R**

NAME AND MAILING ADDRESS OF APPLICANT:

Stanley Patten Pond LLC
1219 State Highway #3
Bar Harbor, Maine 04609

COUNTY: **Hancock County**

NAME AND ADDRESS OF FACILITY:

Stanley Patten Pond LLC
1470 Bucksport Road
Ellsworth, Maine 04605

RECEIVING WATER/ CLASSIFICATION: **Groundwater /Class GW-A**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Patty Ray Stanley**
207-288-9814

1. APPLICATION SUMMARY:

Application: The applicant has applied for a renewal of Waste Discharge License (WDL) #W003294-5J-C-R, which was issued on June 26, 2001 and expired on June 26, 2006. The application is for the continuing operation of a spray irrigation wastewater disposal system on a 1.6 acre site for the treatment and seasonal disposal of sanitary wastewater, generated at a rate of 16,000 gallons per day and disposed of at a rate of 2.5 inches per week per acre at the spray irrigation area at the Stanley Patten Pond, LLC waste water disposal facility in Ellsworth, Maine.

1. APPLICATION SUMMARY (CONT'D):

a. History: The most recent Department licensing actions include the following:

October 25, 1972 - The Department approved (by Site Location Order #81-0434-09130), with conditions, the application of Camp Patten KOA to develop a campground with 200 camping sites with central facilities for supplies, lounges, laundry and sanitation facilities on 26 acres. Included was the finding that a central well and on-site central septic system was proposed. The Order further found that there was contradictory evidence as to the size and efficiency of the leach-field area with reference to nutrient pollution of Patten Pond through ground water discharges. The Order approved the development with the requirement that the licensee provide soil test data and percolation test results on the proposed leach-field area, detailed plumbing plan based on those tests, final layout plan of the campsites, road, utilities and facilities.

September 24, 1980 - The Department approved the application of Patten Pond KOA, Inc. for a waste discharge license (WDL #3294) to operate a surface waste water disposal system at the campground. The WDL authorized the treatment and disposal of up to 16,000 gallons per day of sanitary wastewater between May 25th and September 30th. The WDL found that the treatment system consists of a septic tank followed by a large facultative stabilization lagoon with disposal of the waste water by percolation through the soils beneath the lagoon and that the system had been in existence since 1973 and was approved by the Department of Health and Welfare at that time. The WDL also found that licensee shall conduct groundwater monitoring Nitrate-Nitrogen, Ortho Phosphate, Fecal Coliform Bacteria, pH, Specific Conductance, and depth to ground water table in wells to be installed at the site. WDL #3294 expired on September 24, 1985

September 10, 1985 - Jack Marshall submitted an application to the Department for the renewal of the WDL for Patten Pond KOA. The application was accepted for processing by the Department on September 11, 1985. The application was subsequently withdrawn by the applicant on June 19, 1992.

July 26, 1993 - Patten Pond Camping Resort submitted an application to the Department for renewal of the WDL for Patten Pond KOA, Inc. The application was accepted for processing by the Department on August 17, 1993. The application was subsequently withdrawn by the applicant on March 31, 2000.

November 8, 1999 - Patten Pond Camping LLC submitted an application to the Department for renewal and transfer of the Waste Discharge License (WDL) for Patten Pond KOA, Inc.

November 28, 1999 - The application submitted by Patten Pond Camping LLC was accepted by the Department for processing.

Year 1972-2000 - The campground and lagoon facility was constructed in 1972 and operated until 1994. Between 1994 and early in the year 2000, the facility was vacant, except for 3 apartments and two trailers. Operations renewed in the latter portion of the year 2000.

June 26, 2001 - The Department approved (WDL #W003294-5J-C-R) the application of Patten Pond Camping LLC for the continued operation of the spray irrigation waste water disposal system for a period of five years. The license approved the application subject to the submittal of a Lagoon Leakage Study prepared by a registered Professional Engineer (on or before October 1, 2001), as well as remediation of the lagoon if it was found to be leaking excessively (the standard being 500 gallons per acre per day).

October 1, 2001 - The licensee requested and the Department approved an extension of time to submit the Lagoon Leakage Study, to until January 2, 2001.

January 2, 2002 - The licensee submitted the Lagoon Leakage Study. The Study found that during the 2000 season, the campground was only partially opened (and consisted of 170 camping sites, of which 113 have full utility hookups), and that during the 2001 season, approximately 22,176 gallons of wastewater was pumped to the lagoon (or an 91-day summer season average waste water discharge to the lagoon of 243 gallons per day). No wastewater was spray irrigated during 2001. The Study also found that the area of the lagoon (to top of berm) is 1.5 acres. Water level in the lagoon did not vary by more than 2.0 inches during the summer season. The Study also found that a clay/silt layer [ranging between 13 inches and 5 feet] exists along the lagoon bottom and concluded that the leakage rate is in the range of less than 42 gallons per day. The Study indicated that there is no evidence the lagoon leakage rate approached the 500 gallon per acre per day threshold established in the June 2001 WDL, therefore remediation of the lagoon was not warranted.

February 6, 2002	-	The Department assessed the Lagoon Leakage Study that found concerns with the studies methodology and assumptions and found that there was a potential net increase to the lagoon of 1,194,883 gallons per year (given precipitation [1,995,701 gallons] plus 22,176 gallons of wastewater, minus an assumed evaporation rate [of 811,314 gallons], and minus leakage [11,680 gallons]). The assessment found that sufficient land area exists to accommodate the volume of 1,194,883 gallons as spray irrigation applications, however the concern was expressed that the licensee has not had to spray irrigate and that the lagoon never overtops its berms. Assuming a net increase to the lagoon of 1,194,883 gallons per year divided by 365 days per year, the net loss to the substrate below the lagoon is 3,276 gallons per acre per day. Therefore, the unaccounted leakage through and below the lagoon exceeds the previously established threshold of 500 gallons per acre per day and a revised lagoon leakage analysis must be provided that considers the February 6, 2002 assessment. In the event that a revised lagoon leakage study concurs with the assessment, then the lagoon must be reconstructed to account for the excessive leakage rate and to reduce unaccounted leakage to the previously established standard of 500 gallons per acre per day.
March 13, 2006	-	The Stanley Patten Pond LLC submitted an application to the Department for the WDL transfer from Patten Pond Camping LLC.
March 16, 2006	-	The Department accepted the application for transfer of the WDL to Stanley Patten Pond LLC.
April 28, 2006	-	The Department approved the transfer of the WDL to Stanley Patten Pond LLC with the issuance of WDL #W003294-5J-D-T)
April 7, 2006	-	Stanley Patten Pond LLC submitted an application for renewal of the WDL. The WDL number, #W003294-5J-E-R, has been assigned to the application for renewal.
April 10, 2006	-	The Department accepted the application for renewal of the WDL

b. Source Description:

Stanley Patten Pond LLC is located on 26 acres of land adjacent to Lower Patten Pond in Ellsworth, Maine. The facility has 140 sites with full service water, electrical, and sewer hookups as well as 45 tent campsites. Sources generating waste water include sanitary facilities in the Main Lodge, the bathhouse, the pavilion, and the full service camp sites. The waste water generated is treated in on-site septic tanks and then pumped to the on-site lagoon and then discharged via the spray irrigation system. Water from the registration office / storm and from apartments, and from the Main Lodge are also treated in existing subsurface waste water treatment facility.

1. APPLICATION SUMMARY (CONT'D):

c. Waste Water Treatment (Lagoon & Spray-Irrigation):

The surface waste water disposal system was constructed in late 1973. The lagoon has a working capacity of approximately 1.7 million gallons. Waste waters generated from the campground receive primary treatment via eleven (11) on-site septic tanks (two-1,500 gallon and nine-2,000 gallon tank capacity). The tanks are pumped of solids annually and supernatant from the tanks is conveyed to the treatment lagoon via pump stations. There are two other septic tanks that discharge effluent to two on-site leachfields associated with the office building and shower building. The eleven septic tanks discharge their supernatant to the on-site wastewater lagoon which is located along the westerly edge of the developed portion of the campground. The lagoon has a full lagoon level of 94 feet above a vertical datum (assumed to be above sea level). The lagoon's berm embankment height extends to 101 feet, thus providing more than the required 2 feet of vertical freeboard during periods of full lagoon water levels. The elevations of the lagoon are depicted on a plan entitled "Proposed Spray Irrigation Site Plan for Patten Pond Camping Resort, Ellsworth, Hancock County, Maine," prepared by CES Engineers, and dated September 14, 1999 and revised on February 10, 2000.

The spray irrigation area is located northerly of the lagoon and includes two main lateral lines with eighteen spray distribution nozzles total. Each nozzle is designed to equally distribute wastewater from the center of a 70 foot diameter circular area. The nozzles themselves are equally spaced along the main lateral lines. Each 70 foot diameter circular area contains 3,846 square feet of ground area or a total of 59,237 square feet of area (1.6 acres) to dispose of wastewater generated by the facility.

The spray area is located in an area characterized by mixed hardwoods and softwoods in a moderately well drained sandy loam (predominately Monadnock-Nicholville complex soils). Historic operations of the system indicates that the existing lagoon (which is lined with native in-situ soils that have compacted over time) has a degree of leakage that had been evaluated in a leakage analysis by a professional consulting engineer. The leakage analysis, entitled Patten Pond Camping Resort, LLC, Ellsworth, Maine, Lagoon Leakage Study, prepared by Acheron Engineering, Environmental & Geologic Consultants, dated January 2002 was submitted to the Department as required by the previous Waste Discharge License. The Leakage Study concluded that the lagoon leakage did not approach Department standards for leakage from a sanitary lagoon. The standard for leakage from a sanitary lagoon is 500 gallons per acre per day. The Study concluded that the requirements of the previous license, to provide rehabilitation of the lagoon substrate such that it would not leak excessively, was not met as determined in the Study conclusions.

1. APPLICATION SUMMARY (CONT'D):

c. Waste Water Treatment (Lagoon & Spray-Irrigation):

The study was reviewed by the Department and found to have some deficiencies such as not accounting for the excessive drought conditions during the year the study was performed, and also by not assessing the hydraulic conductivity of the substrate in-situ, rather than the laboratory sampling that was performed. The review of the study indicated that there would be a net increase to the lagoon of 1,194,883 gallons per year or 3,276 gallons per acre per day that was not accounted for in the lagoon contents, indicating that the lagoon was leaking at that rate (exceeding the allowable leakage rate of 500 gallons per acre per day), and this remediation of the leaky lagoon is warranted. However, the Department wants to provide an opportunity to the licensee to address the assessment of the leakage study by requiring the submittal of answers to the assessment on or before March 15, 2007 as indicated in the license Section O. *Spray Irrigation Performance & Lagoon Leakage Report.*

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 applicable state law, and ensure that the receiving waters attain the State water quality standards as described in Maine's 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 wastewater. 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

Lagoon Effluent:

This licensing action is establishing monthly monitoring requirements for *Biochemical Oxygen Demand (BOD_5), Total Suspended Solids (TSS), and Nitrate-Nitrogen* for lagoon effluent as it exits the lagoon to be sprayed. Monitoring for these parameters yields an indication of the effectiveness of the lagoon treatment process and the condition of the wastewater being applied. Lagoon influent flow is also required to be monitored and reported on DMR sheets to be submitted to the Department in order to calculate the lagoon mass balance and to properly manage lagoon volumes.

5. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONT'D)

Spray Irrigation Application Rates (Weekly, Daily)

The weekly maximum rate 67,880 gallons per acre (2.5 inches/week) is a continuation of the previous licensing actions weekly limits and is based on the characteristics of the in-situ soils. The previously established daily maximum rate of 0. 5 inches per day is being suspended in this licensing action as sufficient other safety factors have been incorporated in the standard operating limitations (see WDL section G: General Operational Constraints) against hydraulically overloading a spray area on any one given day.

	License Limit	Equivalent Inches	Based on total spray area of 1.6 acres**
Application Rate (weekly)	67,880 gallons/acre	2.5 inches	108,608 gallons per week

** Eighteen spray heads with a radius of 35 feet each
Note: 1 acre-inch is equivalent to 27,150 gallons
Regardless of the calculated rate, the system operator shall monitor each waste application to verify adequate infiltration of the waste water into the soil, and an irrigation cycle should be stopped if runoff or ponding start to occur.

Lagoon Levels (freeboard)

The amount of freeboard space between the lagoon or pond surface elevation and the lowest point in the top of the respective berm is being measured to prevent overtopping of the berms and to evaluate facility operation for managing flows and annual precipitation.

Groundwater Monitoring Wells

Good geologic science typically requires a minimum of three monitoring wells for monitoring wastewater disposal (spray-irrigation) systems. One well is typically installed upgradient from the lagoon to monitor ambient groundwater conditions, one well installed downgradient from the lagoon to monitor lagoon leakage, and one well installed downgradient from the spray field to monitor effects on the groundwater from the spray operation. Stanley Patten Pond has four groundwater monitoring wells depicted on plans submitted to the Department in order to determine the treatment efficiency of the wastewater system (one well is adjacent to the lagoon [MW-1], two others are in the spray irrigation area [MW-2, MW-3], whereas the fourth is shown on plans northeasterly of the spray site adjacent to a freshwater wetland marsh [MW-4], but had not been installed). In the case of Stanley Patten Pond LLC, the Department has found that (1) the effluent has been consistently treated to a high degree; and (2) the on-site soils are relatively efficient at attenuating pollutant given the limited hydraulic load. The Department finds that groundwater monitoring wells must provide samples that are representative of the ground water in the vicinity.

Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) –The daily maximum limit of 100 mg/L is a Department best professional judgement of best practicable treatment (BPT) for surface waste water disposal (spray irrigation) systems. The limits are common for all licenses issued by the Department for surface waste water disposal systems designed to treat sanitary waste waters.

5. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONT'D)

pH – The daily maximum limit of 6.0 to 8.5 Standard Units had been established as a lagoon effluent limitation and a report requirement in ground water monitoring wells. This licensing action is suspending the requirement for testing pH in the lagoon effluent but is carrying forward the report requirement in the groundwater monitoring wells (but at a reduced frequency of monitoring) and has modified the limits to 6.0 to 9.0 in order to address updated Department rules pertaining to the limits for pH.

Nitrate-Nitrogen – Nitrogen compounds are by-products of the biological breakdown of ammonia and is inherent in domestic-like sanitary waste waters. Tracking nitrogen concentration is important in determining the effectiveness of the treatment process and elevated N-concentration is a human health concerns in drinking water supplies. The limit of 10 mg/L is a National Primary Drinking Water standard.

Chloride – Chloride is inherent in domestic sanitary waste waters and are very mobile in soils. Chloride is considered a good screening parameter as variability in the concentration level in groundwater is an indication that the soils may not be providing the level of treatment desired and that the spray irrigation application rate may need adjustment. This licensing action is requiring a report value to be provided on Discharge Monitoring Report sheets to be submitted to the Department. According to the National Secondary Drinking Water Maximum Contaminant Level standard, Chloride has a secondary level limitation of 250 mg/L.

Specific Conductance, and Temperature are generally considered "field" parameters meaning that they are measured directly in the field via instrumentation and does not require laboratory analysis. However, in certain instances, Specific Conductance samples may be preserved and forwarded to a laboratory for evaluation. These parameters are considered surveillance level monitoring parameters that are used as early-warning indicators of potential groundwater contamination.

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, licensees 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.

An attachment to 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. 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.

8. PUBLIC COMMENTS

Public notice of this application was made in the Ellsworth American, a newspaper with circulation in the area of the proposed discharge on or about March 30, 2006. 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.

9. DEPARTMENT CONTACTS:

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

David Silver
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) 287-3901

10. RESPONSE TO COMMENTS

During the period of April 7, 2006 and final Department action, the Department solicited comments on the proposed draft Maine Waste Discharge License to be issued to Stanley Patten Pond, L.L.C. for the proposed discharge. The Department did not receive comments from the licensee, state or federal agencies or interested parties that resulted in any substantive change(s) in the terms and conditions of the license. Therefore, the Department has not prepared a Response to Comments section as part of this licensing action.

Water Quality Monitoring Plan Details Attachment to the Fact Sheet
Bureau of Land & Water Quality, Div. of Environmental Assessment

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 in-clude 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 es-tablished, 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.

Example Spray Irrigation Field Calibration Report Form
Attachment to the Fact Sheet

Background Data

Describe the reasons for system re-calibration (example annual calibration or change in operating conditions). When there has been a change in operating conditions list the specific changes such as new components (pumps, spray heads, size or type of pipes, etc.) or previously approved design changes.

Describe the current method for estimating the flow of wastewater to the irrigation area, ie, meter or pump calibration data. When using pump calibration data list the estimated flow rate of the pump for the existing site conditions (example gallons per minute). Also note the assumed diameter of coverage for the individual spray heads and the resulting area of application (acreage). Based on this information what is the assumed application rate in inches per hour and gallons per acre. Note: 1 acre-inch equals 27,150 gallons.

System Calibration

Describe or attach illustrations of the system calibration procedure, ie, grid layout or rain gauge or other uniform containers.

List the actual radius of spray coverage of the individual spray heads as measured during the field calibration and note any application uniformity problems such as noticeable ponding or uneven applications.

Calculate the acreage of the application based on the actual radius of coverage measured in the field. Show calculations.

Example: (27,150 gallons/acre/week)(1.5 inch/week)(1.3 acres) = 52,942 gallons/week

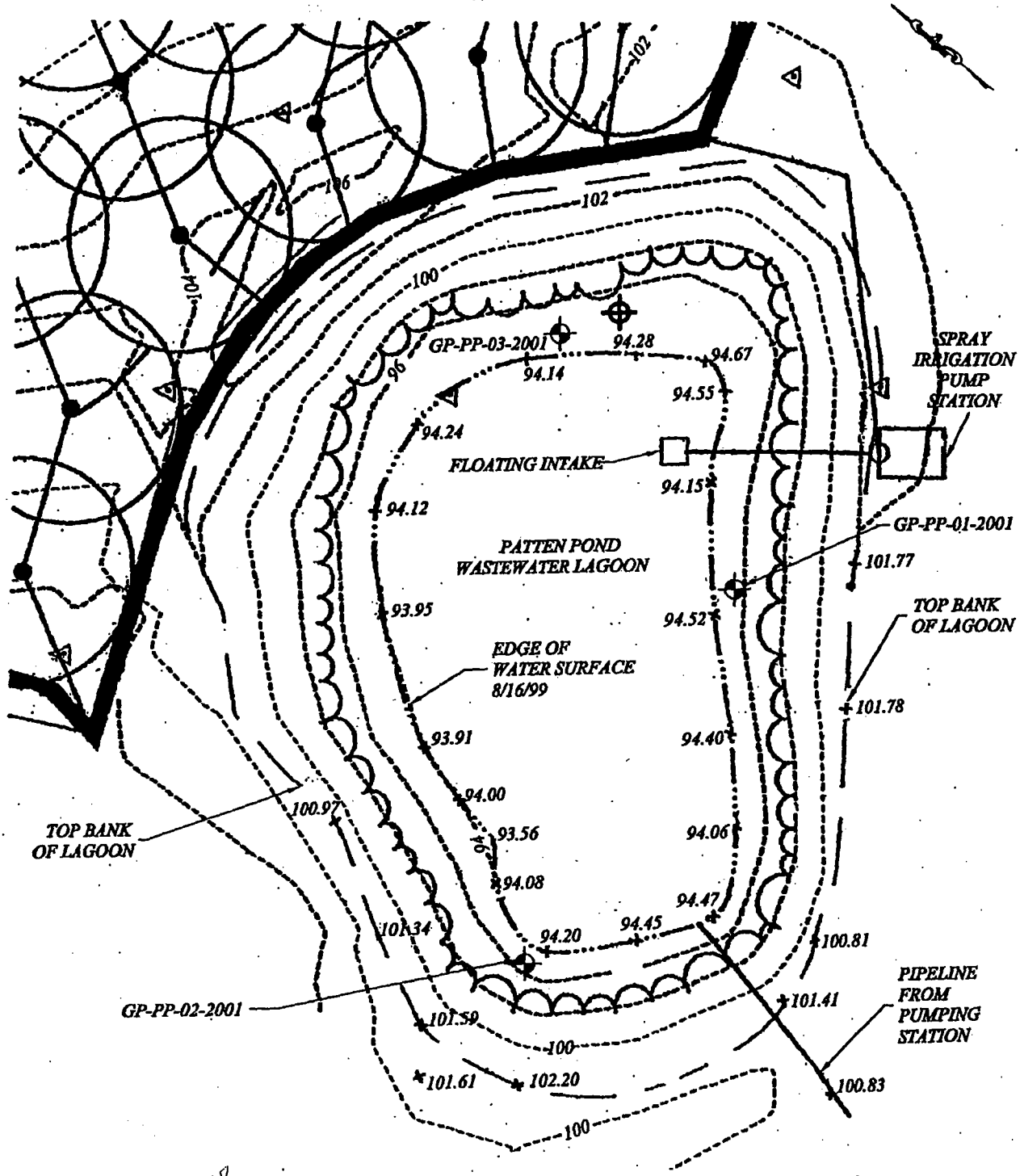
Calculate the estimated hourly application rate in inches per hour and gallons per acre obtained during the above calibration. Show calculations.

New Calibration Data

What changes to the estimates of wastewater flow are proposed, if any and why? And are the licensed application rates satisfied?

Any adjustments to improve uniformity of spray applications?

Submitted by: Signature of Operator in Responsible Charge	On Date:
Reviewed by: Signature of Operator in Responsible Charge	On Date:



94.67
93.56
1.11'

FIGURE 1

LEGEND

-GEOBORING

-SOIL SAMPLE TEST PIT

PATTEN POND CAMPING RESORT
ELLSWORTH, MAINE

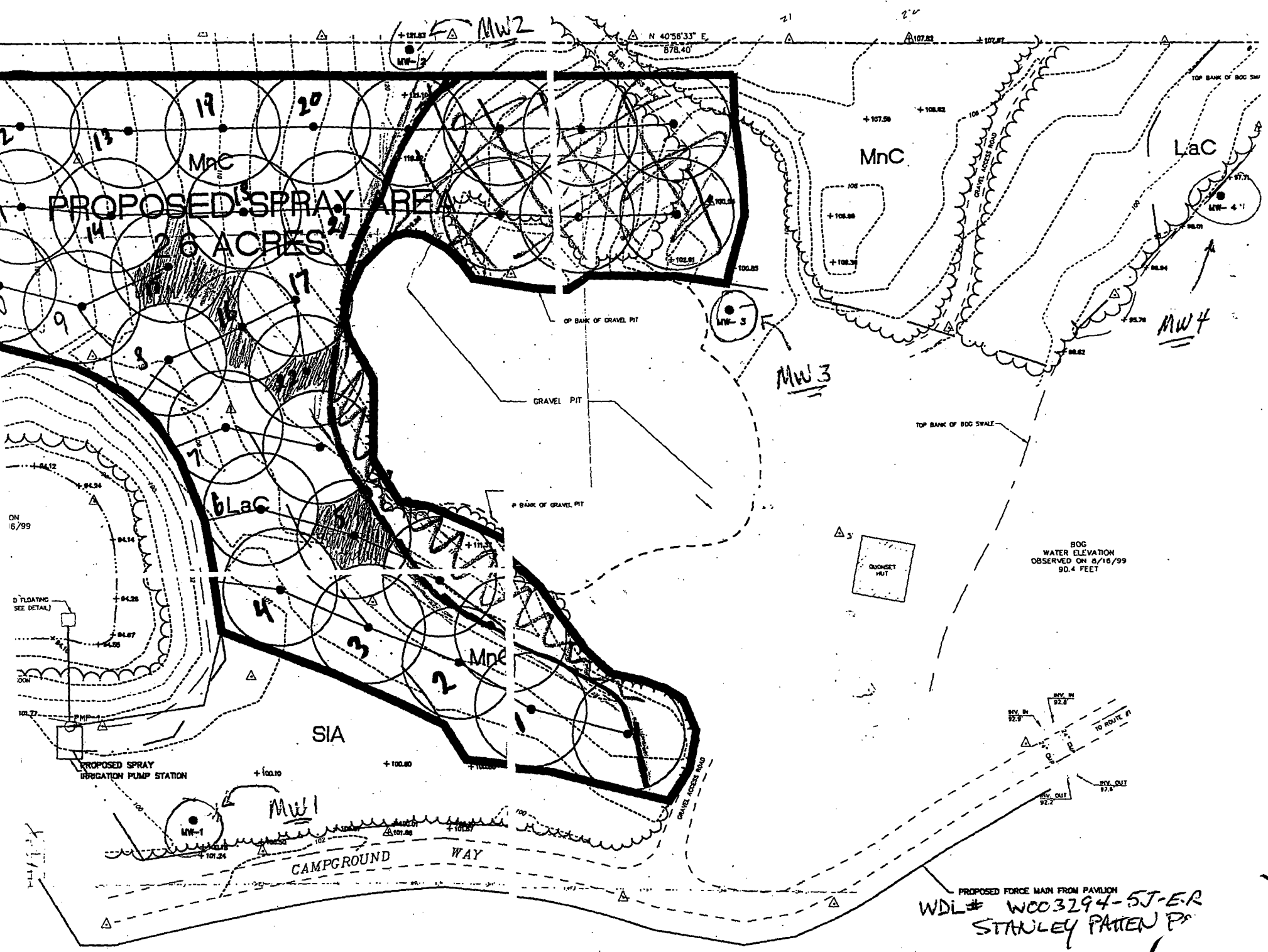
WASTEWATER TREATMENT LAGOON
BORING AND TEST PIT LOCATION

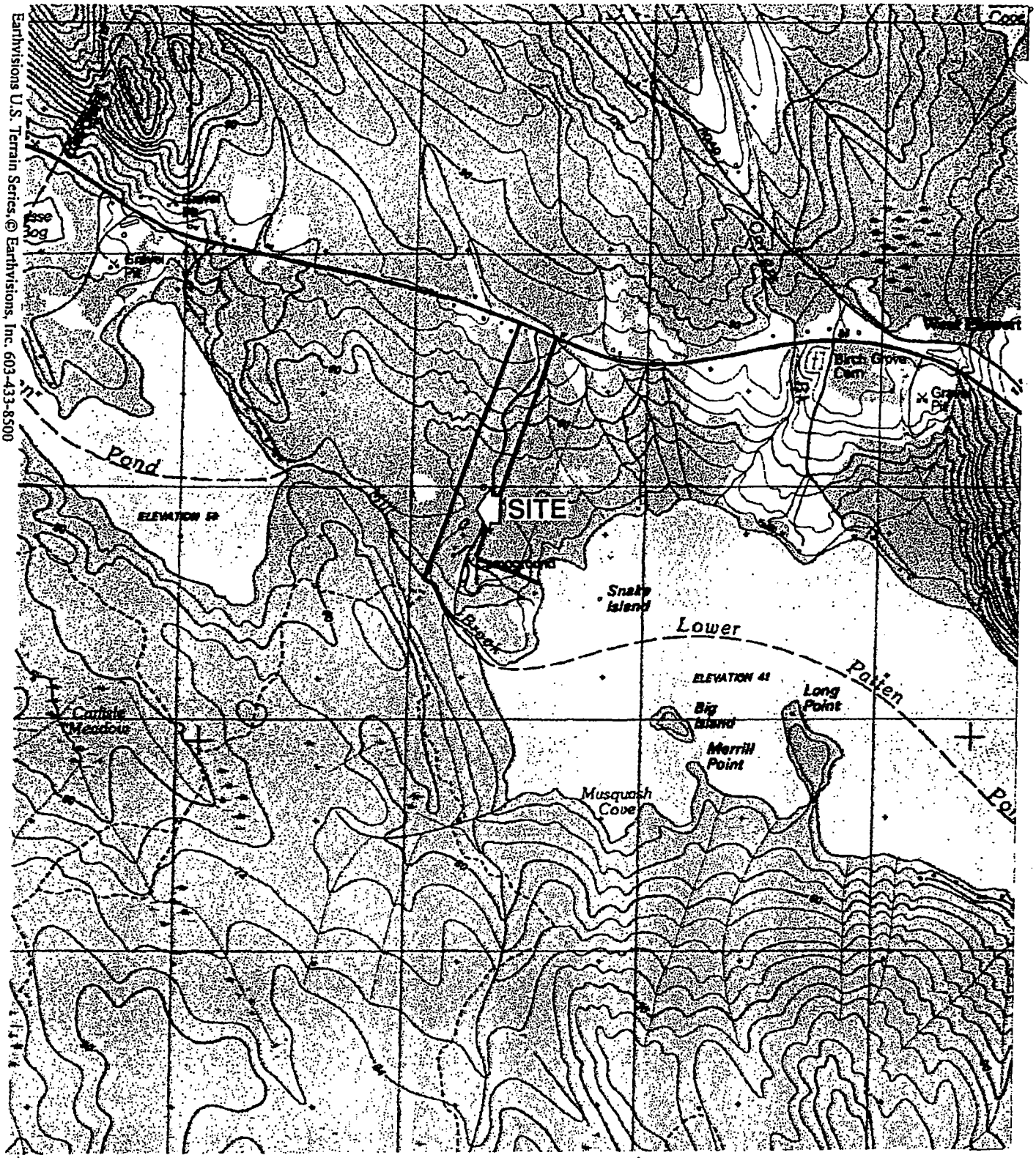
ACHERON ENGINEERING SERVICES
Engineering, Environmental & Geologic Consultants
Newport, Maine

JOB NO:	40310	DWG NO:	A-1669
SCALE:	NOT TO SCALE		

FIGURE BASED ON SITE SURVEY AND DRAWING BY CIVIL ENGINEERING SERVICES DATED 9/14/99. USED WITH PERMISSION FORM PATTEN POND CAMPING RESORT LLC.

Plot Date: 1/02/02, File: A-1669
Plot Scale: 1=1, Drawn By: LKS


MW2
MW-2
N 40°56'33" E
678.40'
PROPOSED SPRAY AREA
26 ACRES
MnC
MnC
LaC
MW-4
MW4
MW-3
MW3
TOP BANK OF GRAVEL PIT
GRAVEL PIT
TOP BANK OF BOG SWALE
GRAVEL ACCESS ROAD
QUONSET HUT
BOG
WATER ELEVATION
OBSERVED ON 8/16/99
90.4 FEET
bLaC
Mn
SIA
PROPOSED SPRAY
IRRIGATION PUMP STATION
MW1
MW-1
CAMPGROUND WAY
PROPOSED FORCE MAIN FROM PAVILION
WDL# WC03294-5J-E.R
STANLEY PATTEN P
PROPOSE
LEGEND:
IRON ROD FOUND
GRANITE MONUMENT FOUND



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SOURCE:
U.S.G.S. TOPOGRAPHIC QUADRANGLE
BRANCH POND, MAINE
@ 1:24 000

C E S
ENGINEERS · SURVEYORS
466 So. Main Street P.O. Box 639 Brewer, ME 04412
Tel: 207-989-4824 FAX 207-989-4881

PATTEN POND CAMPGROUND
Ellsworth, Maine
LOCATION MAP

DATE: 8/30/99
JN: 2644