



STATE OF MAINE
Department of Environmental Protection

Paul R. LePage
GOVERNOR

Patricia W. Aho
COMMISSIONER

December 2, 2014

Mr. Jeffrey C. McBurnie, PE
Consulting Engineer
5 Church Road
Holden, ME. 04429-7150
e-mail: jeffmcbre@aol.com

RE: Integrated Compliance Information System (ICIS) #MEU508019
Maine Waste Discharge License (WDL) Application #W008019-5J-C-R
Pat Jackson Inc.
Final License

Dear Mr. McBurnie:

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

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled "*Appealing a Commissioner's Licensing Decision.*"

If you have any questions regarding the matter, please feel free to call me at 287-7693.

Sincerely,

Gregg Wood
Division of Water Quality Management
Bureau of Land and Water Quality

Enc.

cc: Beth DeHaas, DEP/CMRO
Lori Mitchell, DEP/CMRO

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-3901 FAX: (207) 287-3435
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BANGOR
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PORTLAND, MAINE 04103
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PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-6477 FAX: (207) 764-1507



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

DEPARTMENT ORDER

IN THE MATTER OF

PAT JACKSON, INC.)	PROTECTION AND IMPROVEMENT
BELGRADE, KENNEBEC COUNTY, MAINE)	OF WATERS
SURFACE WASTE WATER DISPOSAL SYSTEM)	
PCS TRACKING #MEU508019)	WASTE DISCHARGE LICENSE
WDL #W008019-5J-C-R)	RENEWAL
APPROVAL)	

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

APPLICATION SUMMARY

PJI has submitted an application to the Department to renew Waste Discharge License (WDL) #W008019-5J-C-R, which was last issued by the Department on October 29, 2009 for a five-year term. The WDL authorized the operation of a surface waste water disposal system for the disposal of supernatant from a septage dewatering facility on a 57-acre site in Belgrade, Maine. Treatment is achieved by screening, solid dewatering and separation, supernatant aeration and seasonal (April 15th – November 15th) disposal via four spray irrigation sites with a combined area of 57 acres. The facility may spray irrigate up to 40,730 gallons per acre (1.5 inches) per week. By using the entire 57-acre spray irrigation area, the facility may treat and discharge up to 2,321,610 gallons per week. In the 4/8/04 WDL action, the licensee and the Department agreed that the seasonal applications over the 31-week spray irrigation season shall be limited to no more than 31,565,750 gallons.

It is noted the licensee has not utilized the spray irrigation site since issuance of the previous licensing action as it has been continuing to dispose of the supernatant from the septage dewatering operation into the Greater Augusta Utility District's (GAUD) collection and treatment system. The GAUD maintains its own MEPDES permit for the discharge to the Kennebec River. Sludge generated at the licensee's facility is composted on-site and then land-spread or recycled.

LICENSE SUMMARY

This licensing action is carrying forward all the terms and conditions of the previous licensing action.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated October 31, 2014, 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) 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 PAT JACKSON, INC., accept and treat up to 142,000 gallons per day of transported wastes and to operate a surface waste water disposal system, SUBJECT TO THE FOLLOWING CONDITIONS, and all applicable standards and regulations including:

1. Standard Conditions of Approval for Industrial Waste Discharge Licenses dated August 14, 1996, copy attached.
2. The attached Special Conditions, including effluent limitations and monitoring requirements.
3. This license and the authorization to discharge become effective upon the date of signature below and expire at midnight five (5) years from the effective date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this license, the authorization to discharge and the terms and conditions of this license and all modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [*Maine Administrative Procedure Act*, 5 M.R.S.A. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(21)(A) (amended August 25, 2013)]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

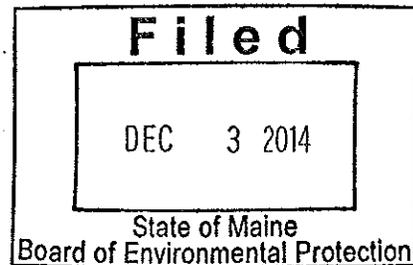
DONE AND DATED AT AUGUSTA, MAINE, THIS 3RD DAY OF December 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Michael Kuhns
for PATRICIA W. AHO, Commissioner

Date of initial receipt of application: October 21, 2014

Date of application acceptance: October 22, 2014



Date filed with Board of Environmental Protection _____

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

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS

1. The **STORAGE TANK EFFLUENT (OUTFALL 001)** ⁽¹⁾ shall be limited and monitored as specified below:

	Daily <u>Maximum</u> as specified	Measurement <u>Frequency</u> as specified	Sample <u>Type</u> as specified
Biochemical Oxygen Demand [00310]	100 mg/L [19]	1/Month ⁽²⁾ [01/30]	Grab [GR]
Total Suspended Solids [00530]	100 mg/L [19]	1/Month ⁽²⁾ [01/30]	Grab [GR]
Nitrate-Nitrogen [00620]	Report mg/L [19]	1/Month ⁽²⁾ [01/30]	Grab [GR]
PH (Standard Units) [00400]	Report S.U. [12]	1/Month ⁽²⁾ [01/30]	Grab [GR]
<u>Metals (Total):</u> Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel and Zinc [01002, 01027, 01034, 01042, 01051, 71900, 01067, 01092]	Report ug/L [28]	1/5 Years ⁽³⁾ [01/5Y]	Grab [GR]

The bracketed numeric values in the table above and tables that follows are code numbers that the Department personnel utilize to code the monthly Discharge Monitoring Reports.

Footnotes: - See page 7 of this license.

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS

2. Beginning the effective date of the license, application of waste water to the land via a spray irrigation system shall be limited to the time period **April 15th to November 15th of each calendar year**. **SPRAY-IRRIGATION FIELDS (SF-1, SF-3, SF-4, & SF-5)** shall be limited and monitored as specified below. See Attachment B of the Fact Sheet of this license for a map showing the four spray fields.
 - a. **SF-1 is 8.0 acres located in the southerly portion of the property,**
 - b. **SF-3 is 20.0 acres located along the northerly boundary of the property, easterly of an on-site septage spreading site;**
 - c. **SF-4 is 16.0 acres and is located easterly of SF-3 and northerly of SF-1;**
 - d. **SF-5 is 13.0 acres and is located easterly of SF-4.**

(The on-site sludge spreading site is shown on a plan submitted to the Department in August 2003 entitled “Pat Jackson, Inc., Proposed Spray Irrigation Sites” as the North West Spray Site #2. This Site #2 is used for land application of sludge and is **not** to be used for spray irrigation applications).

	<u>Monthly Total</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Application Rate, Daily ⁽⁴⁾ [51124]			Report, gal/acre/day ⁽⁵⁾ [8B]	1/Discharge Day [01/DD]	Calculate [CA]
Application Rate, Weekly ⁽⁴⁾ [51125]	—	40,730 gal/acre/week ⁽⁵⁾ [8B]		1/Week [01/07]	Calculate [CA]
Flow - Total Gallons ⁽⁴⁾ [82220]	Report (Gallons for the month) [80]	—	Report (Gallons) [80]	1/Month [01/30]	Calculate [CA]
Flow - Total Gallons [82220]	Report (Cumulative gallons for the season) [80]	—	Report (Gallons) [80]	1/Month [01/30]	Calculate [CA]

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS

3. **GROUND WATER MONITORING WELLS: MW-101, MW-102, MW-103, MW-104, MW-105, MW-106 AND MW-107.** See Attachment C of the Fact Sheet of this license for a location map of the ground water monitoring wells.

OR those wells that are specified in the Groundwater Monitoring Plan (Plan) as approved by the Department shall be limited and monitored as specified below.

<u>Monitoring Parameters</u>	Daily Maximum	Minimum Measurement Frequency	Sample Type
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 [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 [02/YR]	Grab [GR]
Inorganics (Total): Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel and Zinc	Report ug/L [28]	1/5Years ⁽⁸⁾ [02/YR]	Grab [GR]
[01002, 01027, , 01034, 01042, 01051, , 71900, 01067, , 01092, 01027]			

Note: Parameters referenced in the Ground Water Quality Monitoring Plan as approved by the Department shall have precedence over the parameters listed in this table

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes – [Special Condition A(1), A(2), A(3), A(4), A(5), A(6), & A(7)]

Being that the operation of surface waste water disposal system is inactive at the time of this license renewal with no plans in the foreseeable future to commence operations, monitoring and reporting requirements are suspended indefinitely. See Special Condition E, *Commencement of Operations*, for instructions should the licensee choose to resume operations.

Storage Tank Effluent

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

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. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services. Samples that are sent to a POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S.A. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (last amended 2/13/00).

All analytical test results from monitoring of parameters required by this license shall be reported to the Department including results which are quantified below the respective reporting limits (RLs) specified by the Department or as specified by other approved test methods. A non-detect analytical test result shall be reported as <Y where Y is the minimum level for reporting quantitative data specified by the laboratory in their report for each respective parameter. Reporting a value of <Y that is greater than an established RL is not acceptable and will be rejected by the Department. Lab data that have an estimated value ("J" flagged) below an established RL shall be reported as "<RL". Reporting analytical data and its use in calculations must follow established Department guidelines specified in this license or in available Department guidance documents.

- (2) Storage tank effluent sampling shall be conducted in the months of **April or May, August, and October** of each calendar year in accordance with approved methods for sampling, handling and preservation (see footnote #1). The licensee is not required to test for these parameters during a month where no waste water was disposed of via the spray irrigation system (however, the licensee may conduct effluent sampling for the purpose of determining the treatment efficiency when utilizing a secondary clarifier or other mechanisms to achieve Best Practicable Treatment (BPT) of the wastes).

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes -- [Special Condition A(1), A(2), A(3), A(4), A(5), A(6) & A(7)]

(3) Metals testing shall be performed in the fourth (4th) year of the term of the license.

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 or the size in acres of that portion of the field utilized. Note: 27,152 gallons is equivalent to one acre-inch. The licensee shall measure the flow of waste water to the irrigation area by the use of a flow measuring device that is checked for calibration at least once per calendar year. Weekly is defined as Sunday through Saturday.

(5) For Discharge Monitoring Report (DMR) reporting purposes, the licensee shall report the highest daily and highest weekly application rate for the month in the applicable box on the form. Compliance with weekly reporting requirements must be reported for the month in which the calendar week ends.

Ground water Monitoring

(6) Depth to Water Level - Measured to the nearest one-tenth (1/10th) 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 two times per year; in the months of **May and October** of each year. Sampling, handling and preservation shall be conducted in accordance with federally approved methods (See footnote #1 above).

(8) Specific conductance (calibrated to 25.0° C), temperature, and pH are considered to be "field" parameters, and are to be measured in the field via instrumentation. The licensee is required to test for these parameters whether wastewater was disposed of via the spray-irrigation system or not.

SPECIAL CONDITIONS

B. TREATMENT PLANT OPERATOR

The person who has the management responsibility over the treatment facility must hold a minimum of a **Grade SITS-II or Grade II** certificate (or Registered Maine Professional Engineer) pursuant to Title 32 M.R.S.A. §4171 *et seq.* and *Regulations for Wastewater Operator Certification*, 06-096 CMR 531 (effective May 8, 2006). All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

C. AUTHORIZED DISCHARGES

The licensee is authorized to discharge treated sanitary waste water only in accordance with the terms and conditions of this license and only to the existing spray-irrigation fields [Field(s) #SF-1, SF-3, SF-4, and SF-5] and from those sources as indicated in the Waste Discharge License application dated October 21, 2014. It is noted that Field #SF-2 is utilized for the land application of sludge and is not to be used for spray irrigation. Discharge of waste water with significantly different characteristics other than those indicated on said application requires formal modification of this license.

D. NOTIFICATION REQUIREMENT

In accordance with Standard Condition #6, the licensee shall notify the Department of any substantial change in the volume or character of pollutants being introduced into the treatment system. For the purposes of this section, notice regarding substantial change shall include information on:

- (a) the quality and quantity of waste water introduced to the treatment system; and
- (b) any anticipated impact caused by the change in the quantity or quality of the waste water to be introduced into the treatment system.

E. COMMENCEMENT OF OPERATIONS

At a minimum of forty five (45) days prior to commencing production/operations, the licensee must meet with the Department's licensing and compliance inspection staff to review applicability of the license limitations, monitoring requirements and reporting requirements. Should the Department determine the proposed operations are significantly different than what has been presented in the 10/21/14 application materials, the Department may require the licensee to submit a revised application to modify the license.

SPECIAL CONDITIONS

F. GENERAL OPERATIONAL CONSTRAINTS

1. All waste waters shall receive biological treatment through a properly designed, operated and maintained treatment 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 neither discharge to surface waters nor any contamination of ground water which will render it unsatisfactory for usage as a public drinking water supply.
3. The surface waste water disposal system shall not cause the lowering of the quality of the ground water, as measured in the ground water monitoring wells specified by this license, below the State Primary and Secondary Drinking Water Standards specified in the Maine State Drinking Water Regulations pursuant to Maine law 22 M.R.S.A. § 2601.

In the event the ground water monitoring results indicate 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.

4. The licensee shall maintain a file on the location of all system components and relevant features. Each component shall be mapped and field-located sufficiently to allow adequate inspections and monitoring by both the licensee and the Department.
5. System components including collection pipes, tanks, manholes, pumps, pumping stations, spray disposal fields, and monitoring wells shall be identified and referenced by a unique system identifier in all logs and reports.
6. 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. The licensee shall inspect the spray-irrigation site or have other means 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. The procedures used to determine the system is functioning as designed shall be described in the facility's O&M manual. Should significant malfunctions or leaks be detected, the licensee must shut down the malfunctioning/leaking sections of the spray system and make necessary repairs before resuming operation. The licensee shall cease irrigation if runoff is observed outside the designated boundaries of the spray field(s).

SPECIAL CONDITIONS

F. GENERAL OPERATIONAL CONSTRAINTS (cont'd)

4. **The licensee shall maintain a daily log of all spray irrigation operations** which records the date, weather, rainfall, areas irrigated, volume sprayed (gallons), application rates (daily and weekly), and other relevant observations/comments from daily inspections. The log shall be in accordance with the general format of the "*Monthly Operations Log*" provided as **Attachment A** of this license, or other similar format approved by the Department. Weekly application rates shall be reported in accordance with the general format of the "*Spray Application Report by Week*" provided as **Attachment B** of this license or other format as approved by the Department. The *Monthly Operations Log, and Spray Application Report by Week*, for each month shall be submitted to the Department as an attachment to the monthly Discharge Monitoring Reports (DMRs) in a format approved by the Department. Copies will also be maintained on site for Department review and for license operation maintenance purposes.

G. SPRAY IRRIGATION OPERATIONAL CONSTRAINTS, LOGS AND REPORTS

1. Suitable vegetative cover shall be maintained. Waste water shall not be applied to areas without sufficient vegetation or ground cover as to prevent erosion or surface water runoff outside the designated boundaries of the spray fields. The licensee shall have an updated management plan that includes provisions for maintaining the spray irrigation area in optimum condition for the uptake of nutrients and moisture holding capacity.
2. At least 10 inches of separation from the ground surface to the ground water table shall be present prior to spray irrigation.
3. No waste water shall be spray irrigated as liquid following a rainfall accumulation exceeding 1.0 inch within the previous 24-hour period. **A rain gauge shall be located on site to monitor daily precipitation.** The licensee shall also manage application rates by taking into consideration the forecast for rain events in the 48-hour period in the future.
4. No waste water shall be applied where there is snow present on the surface of the ground or when there is any evidence of frost or frozen ground within the upper 10 inches of the soil profile.
5. No traffic or equipment shall be allowed in the spray-irrigation field area except where installation occurs or where normal operations and maintenance are performed (this shall include forest management operations).

SPECIAL CONDITIONS

G. SPRAY IRRIGATION OPERATIONAL CONSTRAINTS, LOGS AND REPORTS

6. The licensee shall install the equivalent of one ground water level inspection well per spray field to verify that 10 inches of separation from the ground surface to the observed ground water level is present prior to spraying. Depths to ground water shall be recorded in accordance with Attachment A of this license or other format as approved by the Department.

H. 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, to ensure uniform distribution of waste water over the desired application area and to 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.

I. 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 unique identifier, the date of maintenance, type of maintenance performed, names or person performing the maintenance, and other relevant system observations.

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

1. The licensee shall maintain an approved ground water quality monitoring plan prepared by a professional qualified in water chemistry. The plan shall include historical current monitoring data for each monitoring point, represented in tabular and graphical form.
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 of the ground water monitoring wells if the well is frequently dry or is determined not to be representative of ground water conditions.

SPECIAL CONDITIONS

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

This facility shall have a current written comprehensive Operation & Maintenance (O&M) Plan. The plan shall provide a systematic approach by which the licensee shall at all times, properly operate and maintain all facilities and the systems of treatment and control (and related appurtenances) which are installed or used by the licensee to achieve compliance with the conditions of this license. Of particular importance is the management of the spray application sites such that the spray sites are given ample periods of rest to prevent over application.

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

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

L. PUBLIC ACCESS TO LAND APPLICATION SITES AND SIGNAGE

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

SPECIAL CONDITIONS

M. MONITORING AND REPORTING

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report (DMR) forms provided by the Department and postmarked on or before the thirteenth (13th) day of the month or hand-delivered to a Department Regional Office 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 DMR and all other reports required herein shall be submitted to the following address:

Department of Environmental Protection
Central Maine Regional Office
Bureau of Land and Water Quality
Division of Water Quality Management
17 State House Station
Augusta, Maine 04333

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

N. REOPENING OF LICENSE 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, or to revise any license provision based on the new information.

O. SEVERABILITY

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

Attachment A

Monthly Operations Log

Pat Jackson Inc (WDL #W008019)

(Month/Year) _____

Spray Field # _____

Weekly Application Rate: _____ gallons/week

A	B	C	D	E	F	G
Date	Precipitation Previous 24 hours (inches)	Air Temp (°F)	Weather	Wind- Direction Speed (mph)	Depth To GW in Observation well (inches)	Total Gallons Pumped (gallons)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
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21						
22						
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24						
25						
26						
27						
28						
29						
30						
31						

Signature of Responsible Official: _____ Date _____

Attachment B

Spray Application Report by Week

Pat Jackson Inc (WDL #W008019) (Month/Year) _____

Spray Field #	Weekly Limit (Gallons/Week)	Spray Application Rates (Gallons/Week)					Monthly Total
		Week 1	Week 2	Week 3	Week 4	Week 5	

Signature of Responsible Official: _____ Date _____

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION STANDARD CONDITIONS OF
INDUSTRIAL WASTE DISCHARGE LICENSES

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MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION STANDARD CONDITIONS OF
INDUSTRIAL WASTE DISCHARGE LICENSES

1. GENERAL CONDITIONS

- A. All discharges shall be consistent with the terms and conditions of this license; any changes in production capacity or process modifications which result in changes in the quantity or the characteristics of the discharge must be authorized by an additional license or by modifications of this license; it shall be a violation of the terms and conditions of this license to discharge any pollutant not identified and authorized herein or to discharge in excess of the rates or quantities authorized herein or to violate any other conditions of this license.
- B. the licensee shall permit the Department of Environmental Protection Staff upon the presentation of proper credentials:
- 1) To enter upon licensee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this license;
 - 2) To have access to and copy any records required to be kept under the terms and conditions of this license;
 - 3) To inspect any monitoring equipment or monitoring method required in this license; or,
 - 4) To measure and/or sample at any intake, process or cooling effluent stream, wastewater treatment facility and/or outfall.
- C. This license shall be subject to such monitoring requirements as may be reasonably required by the Department of Environmental Protection including the installation, use and maintenance of monitoring equipment or methods (including, where appropriate, biological monitoring methods). The licensee shall provide the Department of Environmental Protection with periodic reports on the proper Department of Environmental Protection reporting form of monitoring results obtained pursuant to the monitoring requirements contained herein.
- D. This license does not preclude obtaining other required Federal, State, or Municipal permits and does not authorize or approve the construction of any onshore physical structures or facilities or the undertaking of any work in any navigable waters.
- E. The issuance of this license does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to public or private property or any invasion of personal rights nor any infringement of Federal, State or local laws or regulations.
- F. Nothing in this license shall be construed to relieve the licensee from civil or criminal penalties for noncompliance, whether or not such noncompliance is due to factors beyond his control, such as an accident, equipment breakdown, labor disputes or natural disaster.

2. TREATMENT PLANT OPERATOR

The Treatment Facility must be operated by a person holding a Grade certificate pursuant to 32 M.R.S.A., Section 4171 et seq. All proposed contracts for facility operation by any person must

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION STANDARD CONDITIONS OF
INDUSTRIAL WASTE DISCHARGE LICENSES

be approved by the department before the licensee may engage the services of the contract operator.

3. WASTE WATER TREATMENT AND SAMPLING FACILITIES

- a. The licensee shall collect all waste flows designated by the Department of Environmental Protection as requiring treatment and discharge them into an approved waste treatment facility in such a manner as to maximize removal of pollutants unless authorization to the contrary is obtained from the Department.
- b. The licensee shall at all times maintain in good working order and operate at maximum efficiency all wastewater collection, treatment and/or control facilities.
- c. All necessary waste treatment facilities will be installed and operational prior to the discharge of any wastewaters.
- d. Final plans and specifications must be submitted to the staff of the Department of Environmental Protection and approved prior to the construction or modification of any treatment facilities.
- e. The licensee shall install flow measuring facilities of a design approved by the Department of Environmental Protection.
- f. The licensee must provide an outfall of a design approved by the Department of Environmental Protection which is placed in the receiving waters in such a manner that maximum mixing and dispersion of the wastewaters will be achieved as rapidly as possible.

4. MONITORING AND REPORTING

a. Representative Sampling

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

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

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION STANDARD CONDITIONS OF
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c. Reporting

- (1) The results of the above monitoring requirements shall be reported on reporting forms supplied by the department in the units specified at a frequency of once:

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

d. All reports shall be signed by:

- (1) In the case of corporations, by a principal executive officer of at least the level of vice president, or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the reporting form originates.
- (2) In the case of a partnership, by a general partner or duly authorized representative.
- (3) In the case of a sole proprietorship, the proprietor or duly authorized representative.
- (4) All monitoring reports and future correspondence regarding monitoring facilities should be directed to:

Bureau of Water Quality Control
Department of Environmental Protection
State House Station #17
Augusta, Maine 04333

5. NON-COMPLIANCE NOTIFICATION

- a. In the event the licensee bypasses collection or treatment facilities or is unable to comply with any of the conditions of this license due, among other reasons, to:
 1. breakdown of waste treatment equipment;
 2. accidents caused by error or negligence;
 3. high strength, high volume or incompatible wastes; or
 4. other causes such as acts of nature,

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

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- b. Within five (5) days of becoming aware of such condition the licensee shall provide the Department of Environmental Protection in writing, the following information:
 - 1. A description of the discharge and cause of noncompliance; and
 - 2. The period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the non complying discharge.
- c. If the licensee knows in advance of changes in licensed facilities or activities which may result in non-compliance or of the need to bypass, it shall submit prior notice at least ten days in advance of such occurrence.
- d. In the event of a bypass is due to inflow or infiltration of uncontaminated water into a sewer system, reporting requirements may be adjusted by the Department to a monthly basis.

6. CHANGE OF DISCHARGE

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

- a) the temporary or permanent termination of the discharge;
- b) changes in the waste collection, treatment or disposal facilities;
- c) changes in the volume or character of wastewater flows;
- d) permanent changes in industrial production rates;
- e) the proposed addition, directly or indirectly, of toxic pollutants not authorized by the license or reflected in the application filed with the department;
- f) the addition to a municipal or quasi-municipal treatment system of industrial wastes which are categorically regulated by the U.S. EPA pursuant to the agency's pretreatment program.

7. TRANSFER OF OWNERSHIP

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

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION STANDARD CONDITIONS OF
INDUSTRIAL WASTE DISCHARGE LICENSES

8. RECORDS RETENTION

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

9. OTHER MATERIALS

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

- a. They are not
 - (1) designated as toxic or hazardous under the provisions of Sections 307 and 311 respectively, of the Federal Water Pollution Control Act; Title 38, Section 420, Maine Revised Statutes; or other applicable State Law, or
 - (2) known to be hazardous or toxic by the licensee.
- b. The discharge of such materials will not violate applicable water quality standards.

10. REMOVED SUBSTANCES

Solids, sludges, trash rack cleanings, filter backwash, or other pollutants removed from or resulting from the treatment or control of wastewaters shall be disposed of in a manner approved by the Department of Environmental Protection.

11. BYPASS OF WASTE TREATMENT FACILITIES

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

12. EMERGENCY ACTION-ELECTRIC POWER FAILURE

In order to maintain compliance with the effluent limitations and prohibitions of this license, the licensee shall either:

- a. maintain an alternative power source sufficient to operate the wastewater control facilities; or

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION STANDARD CONDITIONS OF
INDUSTRIAL WASTE DISCHARGE LICENSES

- b. Halt, reduce or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

13. SPILL PREVENTION AND CONTAINMENT

The licensee shall within six (6) months of the effective date of this license submit to the Department of Environmental Protection's spill prevention plan. Said plan shall delineate methods and measures to be taken to prevent and or contain any spills of pulp, chemicals, oils, or other contaminants and shall specify means of disposal and/or treatment to be practiced.

14. CONNECTION TO MUNICIPAL TREATMENT SYSTEM

All wastewaters designated by the Department of Environmental Protection as treatable in a municipal treatment system will be consigned to a municipal treatment system when said system becomes available. This waste discharge license will automatically expire 90 days after a municipal facility becomes available unless this time is extended by the Department, in writing, for good cause shown.

15. PRETREATMENT

- A. The licensee shall comply with all Federal Statutes, regulations, and conditions of permits applicable to its discharge of wastewaters, including, but not limited to, those requiring the installation of pretreatment facilities or establishment of pretreatment programs.

DEFINITIONS

FOR THE PURPOSE OF THIS LICENSE THE FOLLOWING SHALL APPLY

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

MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: **October 31, 2014**

COMPLIANCE TRACKING NUMBER: **MEU008019**

LICENSE NUMBER: **W008019-5J-C-R**

NAME AND MAILING ADDRESS OF APPLICANT:

**PAT JACKSON, INC.
Attn: Pauline Dube, President
P.O. Box 691
Augusta, ME. 04332-0691**

COUNTY: **Kennebec County**

NAME AND ADDRESS OF FACILITY:

**Penney Road
Belgrade, ME.**

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

COGNIZANT OFFICIAL AND TELEPHONE NUMBER:

**Ms. Pauline Dube, President
(207) 623-3223**

1. APPLICATION SUMMARY:

- a. Application: Pat Jackson Inc. (PJI/licensee hereinafter) has submitted an application to the Department to renew Waste Discharge License (WDL) #W008019-5J-C-R, which was last issued by the Department on October 29, 2009 for a five-year term. The WDL authorized the operation of a surface waste water disposal system for the disposal of supernatant from a septage dewatering facility on a 57-acre site in Belgrade, Maine. See **Attachment A** of this Fact Sheet for site location map. Treatment is achieved by screening, solid dewatering and separation, supernatant aeration and seasonal (April 15th – November 15th) disposal via four spray irrigation sites with a combined area of 57 acres. The facility may spray irrigate up to 40,730 gallons per acre (1.5 inches) per week. By using the entire 57-acre spray irrigation area, the facility may treat and discharge up to 2,321,610 gallons per week. In the 4/8/04 WDL action, the licensee and the Department have agreed that the seasonal applications over the 31-week spray irrigation season shall be limited to no more than 31,565,750 gallons.

1. APPLICATION SUMMARY (cont'd)

It is noted the licensee has not utilized the spray irrigation site since issuance of the previous licensing action as it has been continuing to dispose of the supernatant from its dewatering operation into the Greater Augusta Utility District's (GAUD) collection and treatment system. The GAUD maintains its own Maine Pollutant Discharge Elimination System (MEPDES) permit for the discharge to the Kennebec River.

b. Source Description:

The material to be land applied by slow-rate spray irrigation is the liquid fraction from dewatering septage recovered from within the treatment facility. The liquid fraction from the dewatered operation is from residential and commercial septage. Based on dewatering up to 31.6 million gallons annually, the average daily waste water generated is 141,464 gallons.

c. Waste Water Treatment:

Waste water treatment at Pat Jackson, Inc involves the collection of septage in a 150,000 gallon storage tank, mixing, and then dewatering. Polymer is added in the dewatering room and the liquid is directed to a belt filter press or dewatering equipment where the moisture content of the solids is reduced to 19 - 25% by weight. Dewatered septage is stockpiled within the processing building or storage pad for land spreading or composted under an approved Department license. The liquid fraction is directed to a clarifier with a diameter of 12 feet where additional solids are removed from the liquid fraction. The liquid is then directed to an aeration tank. A second clarifier is located at the facility but the secondary clarifier is currently being bypassed from the treatment process (plans are to re-connect the secondary clarifier in order to achieve better effluent quality). After treatment, the liquid filtrate is either stored, hauled to another licensed disposal area or is directly applied to the land via spray irrigation. The stabilized filtrate is spray irrigated on a 57-acre portion of the 108-acre parcel of land controlled by the licensee.

Low-pressure spray nozzles have been used in the past. The nozzles had operated at 25-40 psig or less and had a throw range of approximately 35' (radius) and were spaced 56' on center (80% of throw radius) to provide relatively uniform distribution. In September 2003, the licensee proposed to utilize different spray distribution system that will have a 170 foot radius from a movable center distribution nozzle that will migrate along a central longitudinal axis. The new distribution plan will eliminate the need to install and remove the spray nozzles at the beginning and end of each spray season. The spray irrigation system is divided into four primary spray fields (SF-1, SF-3, SF-4, and SF-5) and spray irrigation events are rotated on a weekly basis. Approximately 1.5 inches of waste water are applied on a particular spray zone per application.

1. APPLICATION SUMMARY (cont'd)

The spray-irrigation area is characterized by Nicholville and Salmon Soil Series. Nicholville is characterized as a very deep, moderately well drained, fine sandy loam soil with a 2 – 8% slope. Salmon is characterized as a very deep, well drained, silty to very fine sandy soil. The site is located along the top of a topographic ridge with a westerly aspect containing a well-established stand of vegetation in open (non-forested) areas.

b. History: Recent Department licensing actions include the following:

- | | |
|------------------|---|
| March 12, 1998 | - The Department received an application to install, operate and maintain a surface wastewater disposal system serving a septage dewatering leachate facility in Belgrade, Maine. |
| April 1, 1998 | - The application PJI submitted to the Department was accepted for processing. |
| April 8, 2004 | The Department issued WDL #W008019-5J-A-N for a five year term. |
| October 29, 2009 | The Department issued WDL #W008019-5J-C-R for a five year term. |
| October 22, 2014 | Pat Jackson Inc. submitted an application to renew the WDL issued on 10/29/09. |

2. LICENSE SUMMARY

This licensing action is carrying forward all the terms and conditions of the previous licensing action.

3. 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. In addition, 38 M.R.S.A., Section 420 and Department rule 06-096 CMR Chapter 530, *Surface Water Toxics Control Program*, require the regulation of toxic substances not to exceed levels set forth in Department rule 06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER 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.

5. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

a. Design Flow:

The daily average design flow of the treatment plant is 141,464 gallons.

b. Storage Tank Effluent:

Monitoring parameters include *Biochemical Oxygen Demand (BOD₅), Total Suspended Solids (TSS), Nitrate-Nitrogen, pH, and certain inorganic compounds.*

Monitoring for these parameters provides an indication of the efficiency of treatment process and the condition of the wastewater being applied. Limits of 100 mg/L for BOD and TSS are based on a Department best professional judgment of best practicable treatment (BPT). It is noted that the facility has achieved the 100 mg/L effluent quality for BOD and TSS when treating lower quantity of waste water, however, the licensee has indicated that at higher volumes that the quality is diminished. It is also noted that the secondary clarifier that was previously used at the licensee's location has been removed from the treatment process hampering its ability to treat the higher volumes. The Department believes that if the secondary clarifier were placed on-line in the treatment process that effluent quality may improve such that satisfying the 100 mg/L would be achievable.

c. Spray Irrigation Application Rates

The previous licensing action established weekly maximum spray rates of 40,730 gallons per acre (1.5 inches/week) for the spray fields. The weekly limits are established as a margin of safety against hydraulically overloading a spray field and are based on the treatment capabilities of the in-situ soils. 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 must be stopped if runoff occurs outside of the designated spray area.

5. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Summary of Spray Irrigation System	
Sprayfields	4
Effective Area	57 acres total
Flow Measurement	Meter
Weekly Application Rate	1.5 inches/acre/week

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

d. Groundwater Monitoring

Total Suspended Solids (TSS). TSS in the groundwater yields an indication of the integrity of the monitoring wells.

Nitrate-nitrogen - For nitrate-nitrogen, the previous licensing action established a daily maximum concentration reporting requirement for lagoon effluent and a daily maximum concentration limit of 10 mg/L for ground water monitoring wells. Nitrogen compounds are by-products of the biological breakdown of ammonia and are inherent in domestic like sanitary wastewater. Because nitrate-nitrogen is weakly absorbed by soil, it functions as a reliable indicator of contamination from waste-disposal sites. Elevated levels of nitrate-nitrogen in the drinking water supply are a human health concern. The limit of 10 mg/L is a National Primary Drinking Water standard.

Specific Conductance, Temperature and pH - are considered to be “field” parameters meaning that they are measured directly in the field via instrumentation and do not require laboratory analysis. These parameters are considered as surveillance level monitoring parameters and are used as an early-warning indicators of potential groundwater contamination when there exists a trend in the data (or in the case of specific conductance, values over 275 umhos/cm, consistent trends approaching 275 umhos/cm or sudden spikes from previous levels). Temperature data are important in calibrating the conductance measurements.

pH - The previous licensing action established a pH range limitation of 6.0 – 9.0 standard units for lagoon effluent and a pH reporting requirement for ground water monitoring wells. Both limitations and reporting requirements are being carried forward in this licensing action.

Metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc) - Metals are being monitored in the ground water as acid rain in combination with a low pH of the effluent can cause or contribute to the leaching of metals from the soils in the spray application area.

6. MAINTAIN ADEQUATE BUFFERS AND LAND FOR REPLACEMENT

The licensee is expected to provide adequate buffers from other land uses, and retain where possible land for system expansion or replacement.

7. IMPACT ON GROUND WATER

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 a newspaper of general circulation around the area of operation on or about October 21, 2014. The Department receives public comments on an application until the date a final agency action is taken on that application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

9. 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

10. RESPONSE TO COMMENTS

During the period of October 31, 2014, through the issuance date of the license, the Department solicited comments on the proposed draft license to be issued for the operation of the licensee's facility. The Department received a letter dated November 7, 2014, from Mr. Frederick Farquhar, an abutting landowner. Therefore, the Department has prepared a Response to Comment(s) as follows.

Comment #1: The commenter states the terms and conditions of the license are of no value if they are not effectively executed, administered, monitored and enforced. Can anyone provide and stand behind a guarantee that no environmental degradation is occurring due to the spraying and sludge composting? Our biggest fear is that our water quality will be negatively impacted and there will be no effective remediation available.

10. RESPONSE TO COMMENTS

Response #1: The Department agrees that the terms and conditions of the license are of no value if they are not effectively executed, administered, monitored and enforced. The Department has a compliance inspector assigned to the Pat Jackson facility that when it becomes operational, will conduct on-site inspections once or twice a year to determine if the facility is being operated as designed, is adhering to the operational constraints in Special Condition G of the license, is conducting the necessary inspections and maintenance and maintaining proper and complete records required by the license. The compliance inspector is also responsible for reviewing the monthly discharge monitoring results submitted to the Department during the non-winter months to determine whether the facility is in compliance with the limitations and monitoring requirement established in the license.

The license limits the application rate to 40,730 gallons/acre/week which is equivalent to 1.5 inches of water per week. The application rate is based on the characteristics of the in-situ soil and its ability to attenuate the pollutants in the waste water applied to the surface of the ground. The strength of domestic sanitary waste water is measured via the concentration of biochemical oxygen demand (BOD) and total suspended solids (TSS). Test results between January 2010 and September 2014 indicate the arithmetic mean of BOD concentrations after treatment in a waste water treatment facility (prior to spray irrigation) at a similar facility in Harrison, Maine that has been operational since 2004, averaged 162 mg/L along with a mean TSS concentration of 17 mg/L. The combined BOD and TSS concentration utilized for sizing sub-surface waste water disposal systems in the Maine State Plumbing Code is 240 mg/L. Therefore, comparing the pollutant loadings from a typical sub-surface waste water disposal system designed in accordance with the Maine State Plumbing Code to the Hermon Park licensed loading rates are as follows:

Maine State Plumbing Code

Assume: Strength of waste water of 240 mg/L (BOD + TSS)
Hydraulic loading rate of 1.0 gal/day per 2.7 square feet

$$(43,560 \text{ square feet/acre})(1.0 \text{ gal/day}/2.7 \text{ square feet}) = 16,133 \text{ gal/acre/day}$$
$$(0.016133 \text{ MGD/acre/day})(8.34 \text{ lbs/gal})(240 \text{ mg/L}) = 32 \text{ lbs of BOD \& TSS/acre/day}$$

Pat Jackson Site

Assume: Strength of waste water of 180 mg/L (BOD + TSS concentration)
Hydraulic loading rate – 40,730 gal/acre/week or 5,818 gal/acre/day

$$\frac{5,818 \text{ gallons}}{43,560 \text{ sq.ft}} = 0.13 \text{ gal/sq ft.}$$

$$0.13 \text{ gal/sq ft} (2.7 \text{ sq ft}) = 0.35 \text{ gal/day}$$

Hydraulic loading rate of 0.35 gal/day per 2.7 square feet

10. RESPONSE TO COMMENTS (cont'd)

$$(43,560 \text{ square feet/acre})(0.35 \text{ gal/day}/2.7 \text{ square feet}) = 5,647 \text{ gal/acre}$$

$$(0.005647 \text{ MGD/acre/day})(8.34 \text{ lbs/gal})(180 \text{ mg/L}) = 8.5 \text{ lbs of BOD \& TSS/acre/day}$$

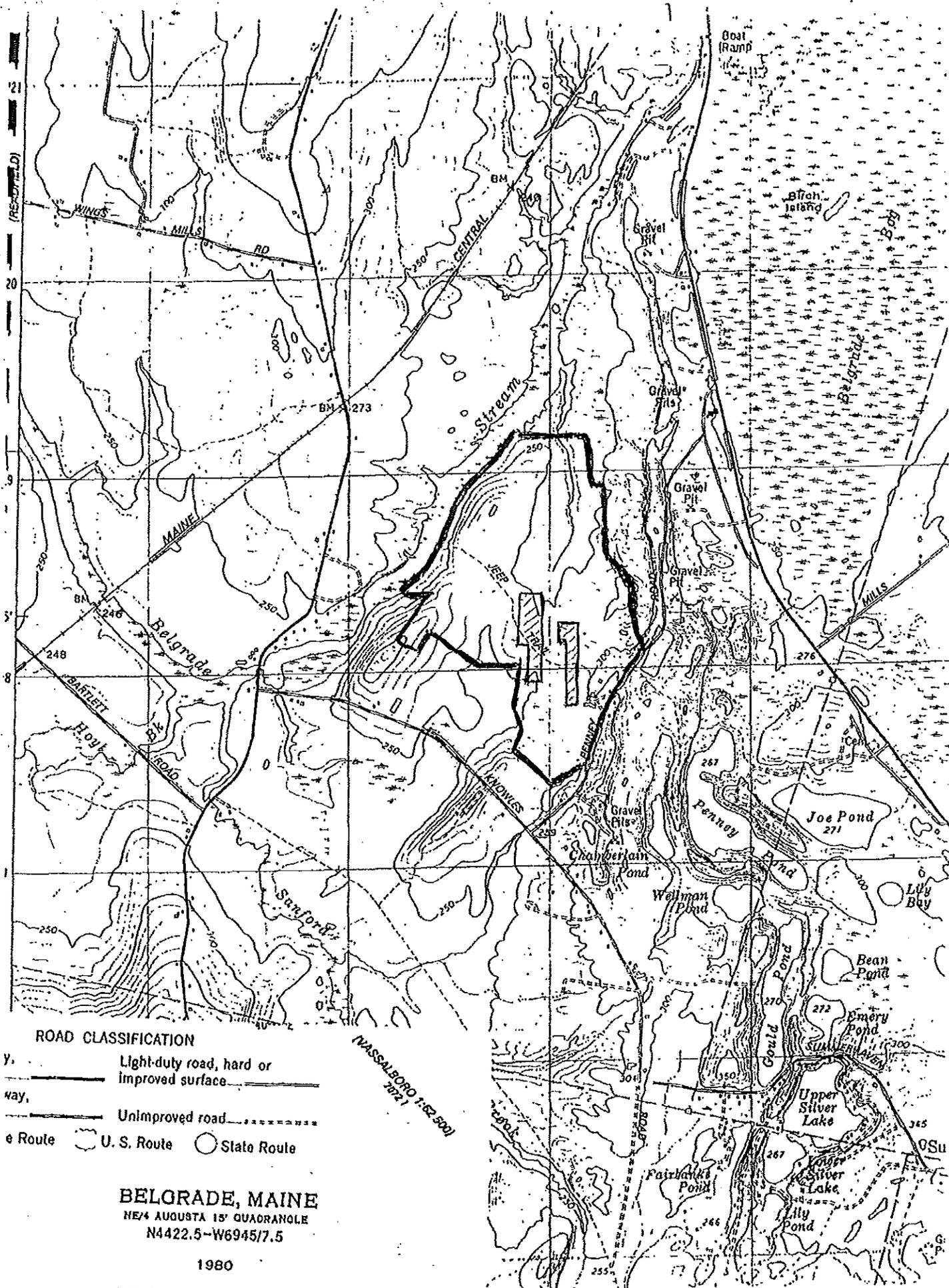
Therefore, for the Pat Jackson facility, the hydraulic loading rate is only 35% of the hydraulic loading rate for a typical resident sub-surface waste water disposal system designed in accordance with the Maine State Plumbing Code and the BOD +TSS pollutant loading is only 26% of the pollutant loading rate for a typical resident sub-surface waste water disposal system designed in accordance with the Maine State Plumbing Code. The authorized pollutant loading limits established in this license are significantly lower than acceptable pollutant loadings thresholds used in designing typical sub-surface waste water disposal systems. This does not take into consideration that residential sub-surface systems discharge on a year-round basis while the Pat Jackson system only applies waste water to the surface of the ground for seven months of the year and only when operational constraints can be met.

The license requires the licensee to monitoring seven (7) monitoring wells in the spring and fall of each year to determine if the on-site ground water is being negatively impacted. Special Condition F(3) of the license states *"The surface waste water disposal system shall not cause the lowering of the quality of the ground water, as measured in the ground water monitoring wells specified by this license, below the State Primary and Secondary Drinking Water Standards specified in the Maine State Drinking Water Regulations pursuant to Maine law 22 M.R.S.A. § 2601.*

In the event the ground water monitoring results indicate 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."

The Department currently regulates over 25 spray irrigation/snowmaking sites around the state. The facilities range from 1.2 acres to 175 acres in size with some facilities that were constructed and operating dating back to the late 1970's. There have been no instances among these licensed facilities where spray irrigation, in compliance with the terms and conditions set forth in the individual licenses, resulted in measureable impacts to waters of the State. The terms and conditions of this license are consistent with the terms and conditions of the other 25 facilities and the Department has no reason to believe there will be any ground water or surface water quality issues attributed to the operation of this facility provided the licensee abides by the terms and conditions of the license.

ATTACHMENT A



ROAD CLASSIFICATION

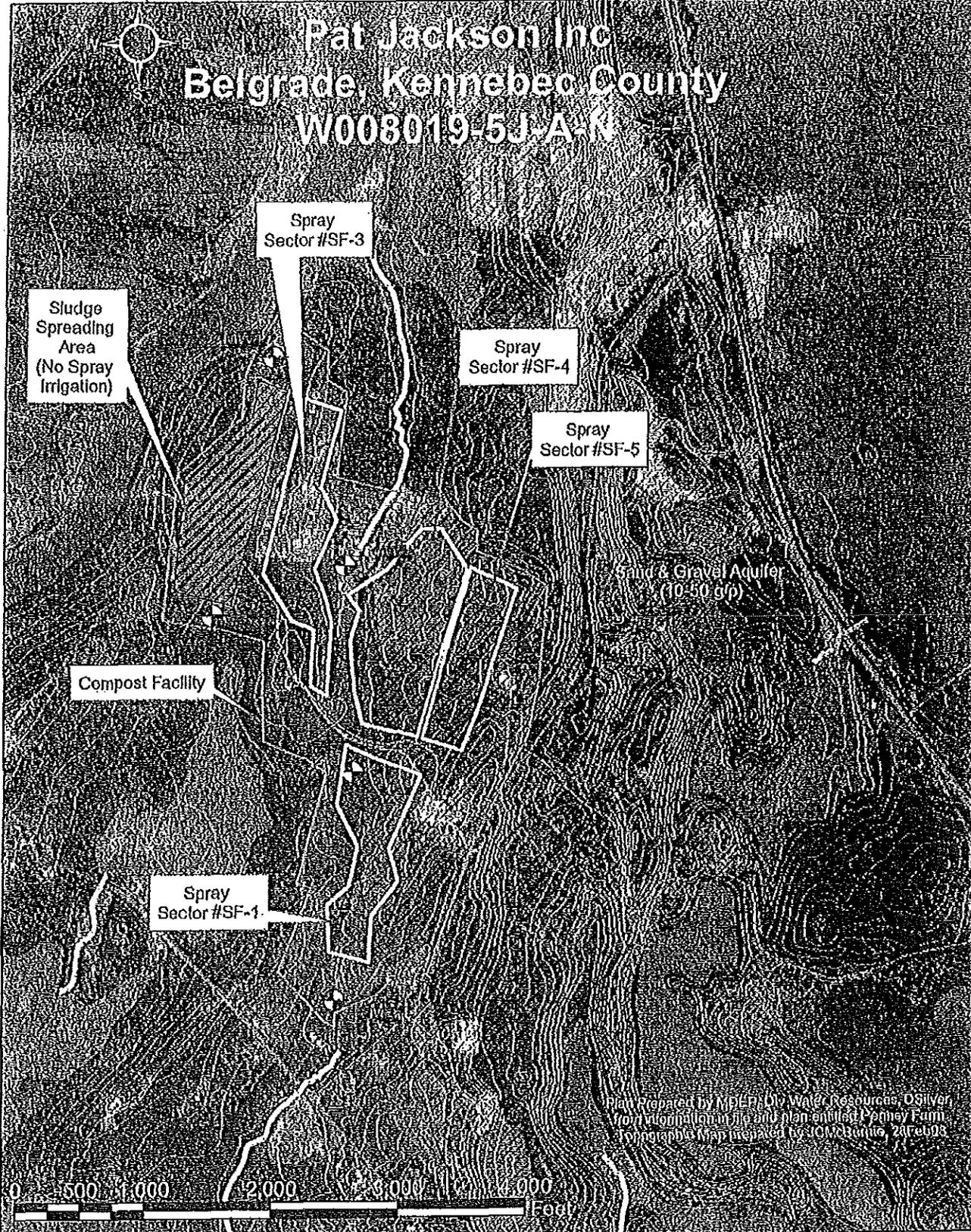
- Y. ——— Light-duty road, hard or improved surface
- way, ——— Unimproved road
- e Route ○ U. S. Route ○ State Route

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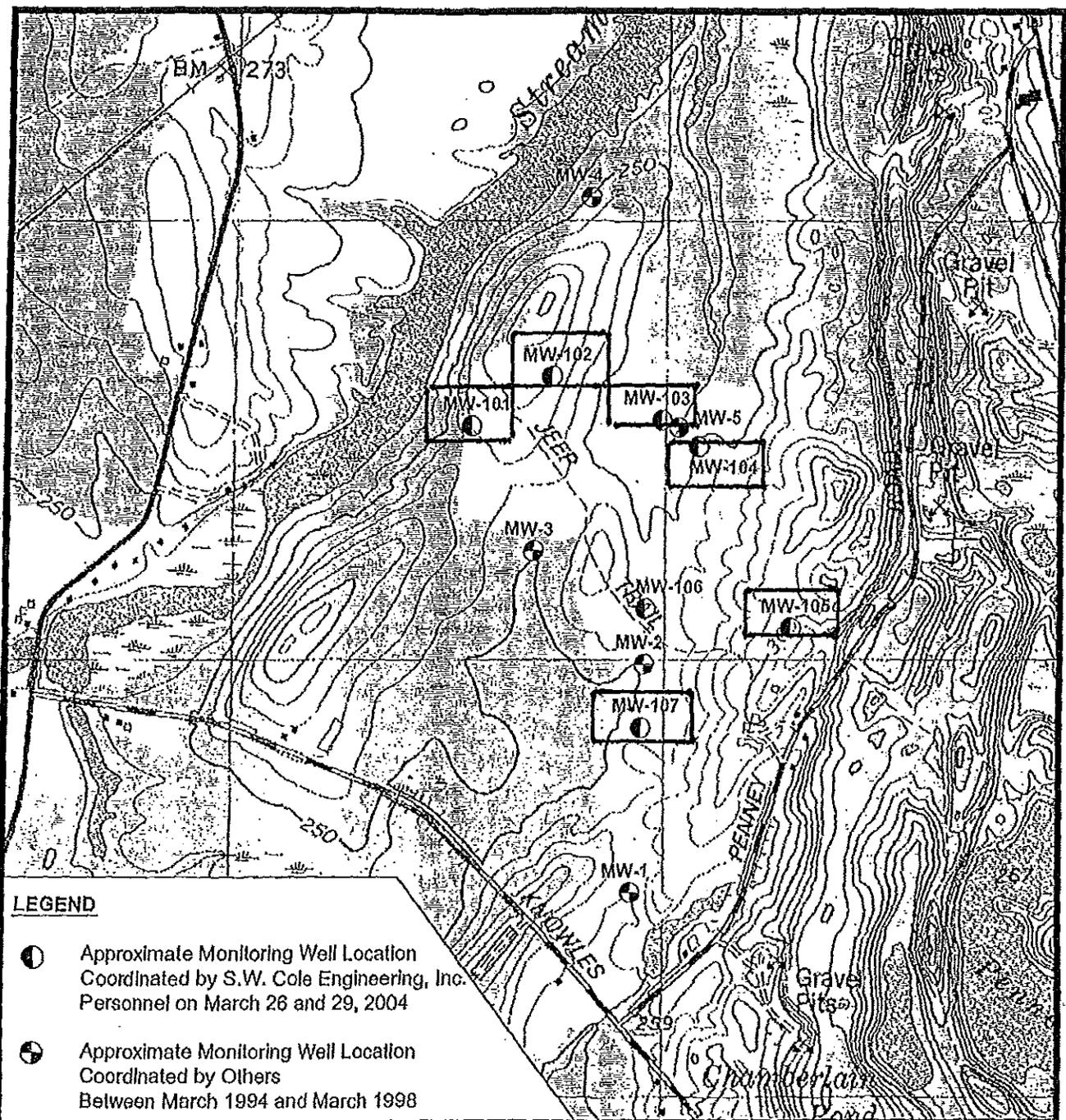
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DMA 7010 III

Pat Jackson Inc
Belgrade, Kennebec County
W008019-5J-A-R



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LEGEND

- ① Approximate Monitoring Well Location Coordinated by S.W. Cole Engineering, Inc. Personnel on March 26 and 29, 2004
- ⊙ Approximate Monitoring Well Location Coordinated by Others Between March 1994 and March 1998

NOTE :

Base map taken from 7.5 Minute Series USGS Topographic Map, Belgrade, Maine Quadrangle.



PAT JACKSON INC.
EXPLORATION LOCATION PLAN

Monitoring Well Installations
 Penney Road
 Belgrade, Maine

Job No. 03-1069.1 G
 Date: 04/12/04

Scale Not to Scale
 Sheet 1



DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: March 2012

Contact: (207) 287-2811

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's ("DEP") Commissioner: (1) in an administrative process before the Board of Environmental Protection ("Board"); or (2) in a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S.A. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S.A. § 480-HH(1)) or a general permit for a tidal energy demonstration project (38 M.R.S.A. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

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

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

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

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

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

HOW TO SUBMIT AN APPEAL TO THE BOARD

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

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

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

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

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide opportunity for photocopying materials. There is a charge for copies or copying services.
2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer questions regarding applicable requirements.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed the license normally remains in effect pending the processing of the appeal. A license holder may proceed with a project pending the outcome of an appeal but the license holder runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge receipt of an appeal, including the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials accepted by the Board Chair as supplementary evidence, and any materials submitted in response to the appeal will be sent to Board members with a recommendation from DEP staff. Persons filing appeals and interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, a license holder, and interested persons of its decision.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court, see 38 M.R.S.A. § 346(1); 06-096 CMR 2; 5 M.R.S.A. § 11001; & M.R. Civ. P 80C. A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. Failure to file a timely appeal will result in the Board's or the Commissioner's decision becoming final.

An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S.A. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board's Executive Analyst at (207) 287-2452 or for judicial appeals contact the court clerk's office in which your appeal will be filed.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.
