STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

Roderick Dyer
P.O. Box 436
Harrison, ME 04040

February 26, 2007

RE: Permit Compliance System Tracking Number #MEU508124
Maine Waste Discharge License (WDL) Application #W008124-5J-B-R
Final License

Dear Mr. Dyer:

Enclosed please find a copy of your **final** Maine WDL which has been 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.

cc: Fred Gallant, DEP/SMRO;
Sandy Lao, USEPA

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 760-3143

web site: www.maine.gov/dep

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

DEPARTMENT ORDER

IN THE MATTER OF

RODERICK DYER	)	PROTECTION AND IMPROVEMENT
HARRISON, CUMBERLAND COUNTY	)	OF WATERS
SUBSURFACE WASTEWATER DISPOSAL	)	WASTE DISCHARGE LICENSE
MEU508124	)	
#W008124-5J-B-R APPROVAL	)	**RENEWAL**

Pursuant to the provisions of Maine Law 38 M.R.S.A., Section 414-A et seq., and applicable regulations, the Department of Environmental Protection ("Department") has considered the application of RODERICK DYER, 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) #W008124-5J-A-N, which was issued on June 18, 2002 and expires on June 18, 2007. The application is for the continuing operation of a subsurface wastewater disposal system that is designed to treat septage leachate generated from a commercial septic tank pumping operation located on a 38.6-acre parcel northerly of Route 117. The operation removes septage and wastewater from septic tanks serving area residences with pumps mounted on tank-truck vehicles. Septage and wastewater pumped from septic tanks has a high Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), and other pollutant concentrations and requires adequate treatment before disposal. The treatment system includes bar racks and screens to separate solids from the wastewater, storage tanks, a polymer mixing tank, two sand filters, and a soil absorption area (often referred to as a leachfield) to dispose of the liquid fraction of the treated septage leachate.

The facility has been assigned a Permit Compliance System (PCS) tracking number MEU508124 for data gathering and retrieval purposes.

LICENSE SUMMARY

This licensing action establishes effluent limitations and monitoring requirements for flow, BOD, TSS, pH, and specific pollutants of concern. The most significant conditions imposed by this licensing action include:

1. Eliminating the requirement to sample at outfall #001. Also changing the requirement to monitor outfall #002 for Specific Conductance in lieu of conductivity, in order to standardize the sampling (and adds temperature (degree, Celcius) as a calibration factor).
2. Eliminating effluent sampling (outfall #002) for oil & grease.
3. Eliminating well sampling (MW1-MW3) for total phosphorus, chemical oxygen demand, and chlorides, and changes temperature from farhenheit to celcius measurements as a standard calibration factor. This licensing action adds well sampling for dissolved oxygen in lieu of the eliminated parameters, as well as modifying the well sampling frequency from monthly to quarterly.
4. Continuing the requirement for inspections of the tanks and subsurface waste water disposal fields and documentation of the inspections (for leach field failure or short-circuiting) and from the observation ports in the disposal field.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated January 18, 2007, and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

1. The discharge, either by itself or in combination with other discharges, will not lower existing groundwater quality.

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 satisfied, in that:

   (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain water quality 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 RODERICK DYER to discharge 2,000 gallons of treated septage leachate waste water per day to a subsurface wastewater disposal system and to ground water, Class GW-A, 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 any 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 February, 2007.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____ FOR
David P. Littell, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application 1/31/07

Date of application acceptance: 2/1/07

FILED
MAR - 1 2007
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

W0081245JB 22Feb07

SPECIAL CONDITIONS
A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The licensee is authorized to discharge treated wastewater from the subsurface sand filters and septic tanks via **Outfall #002**. Outfall #002 is defined as the pump station/effluent pipe from the last septic tank leading to the soil absorption area. Such discharges shall be limited and monitored by the licensee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Monthly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Flow *[50050]*	Report, GPD[(1)] *[07]*	2,000 GPD *[07]*	1/Week *[01/07]*	Measure *[MS]*
Specific Conductance *[00095]*	---	Report, uhmos/cm *[11]*	1/Month *[01/30]*	Measure *[MS]*
Biochemical Oxygen Demand, BOD *[00310]*	---	250 mg/L *[19]*	1/Month *[01/30]*	Grab *[GR]*
Total Suspended Solids, TSS *[00530]*	---	250 mg/L *[19]*	1/Month *[01/30]*	Grab *[GR]*
Nitrates *[00621]*	---	10 mg/L *[19]*	1/Month *[01/30]*	Grab *[GR]*
TKN *[81639]*	---	Report, mg/L *[19]*	1/Month *[01/30]*	Grab *[GR]*
Temperature, C *[00010]*	---	Report, degree *[15]*	1/Month *[01/30]*	Measure *[MS]*
PH *[00400]*	---	6.0-9.0, Standard Units	1/Month *[01/30]*	Grab *[GR]*

The system typically operates only during the winter months when land application is not permitted (November—April). Sampling at outfall #002 is only required when there is any actual flow at any time during the monthly reporting period.

Footnotes: [(1)] Flow shall be calculated as follows: The total discharge by liquid (gallons) measure during the calendar month divided by the number of days in the month that the facility was operating.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. **Monitoring Wells (MW1, MW2, & MW3)** is defined as the north-westerly most monitoring well as shown on the January 29, 2002 Site Plan prepared by Albert Frick Associates, Inc. Such discharges shall be limited and monitored by the licensee as specified below:

Effluent Characteristic	Discharge Limitations	Monitoring Requirements	
	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Specific Conductance *[00095]*	Report[(2)], uhmos/cm *[11]*	1/Quarter *[01/90]*	Measure *[MS]*
Dissolved Oxygen *[00300]*	Report, mg/L *[19]*	1/Quarter *[01/90]*	Grab *[GR]*
Total Suspended Solids, TSS *[00530]*	Report, mg/L *[19]*	1/Quarter *[01/90]*	Grab *[GR]*
Nitrate-Nitrogen *[00620]*	10 mg/L *[19]*	1/Quarter *[01/90]*	Grab *[GR]*
TKN *[00625]*	Report, mg/L *[19]*	1/Quarter *[01/90]*	Grab *[GR]*
Temperature *[00010]*	Report, C° *[15]*	1/Quarter *[01/90]*	Measure *[MS]*
Depth to Water Table from Ground Surface *[72019]*	Report, inches below ground *[61]*	1/Quarter *[01/90]*	Measure *[MS]*
pH *[00400]*	6.0-9.0, Standard Units	1/Quarter *[01/90]*	Grab *[GR]*

Footnote: [(2)] 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 waste water 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.

SPECIAL CONDITIONS

B. NARRATIVE EFFLUENT LIMITATIONS

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

C. MONITORING AND REPORTING

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report Forms (DMR's) provided by the Department and **postmarked no later than the thirteenth (13th) day of the month, or, received by the Department no later than the fifteenth (15th) day of the month following the completed reporting period.** A signed copy of the DMR's 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
Bureau of Land & Water Quality
Division of Water Quality Management
Southern Maine Regional Office
312 Canco Road
Portland, Maine 04103

D. NOTIFICATION REQUIREMENT

The licensee shall notify the Department of the following.

1. Any intended increase of volume above the 2,000 GPD flow to the system or any substantial change in the character of pollutants being introduced into the wastewater treatment system.
2. For the purposes of this section, adequate notice shall include information on:
   (a) Any change in the quality and quantity of wastewater introduced to the wastewater treatment system; and
   (b) any anticipated impact of the change in the quantity or quality of the wastewater to be discharged from the treatment system.

E. PROHIBITION OF NON-DOMESTIC USERS

The wastewater treatment system may not be used to treat or discharge wastewater other than from domestic users.

SPECIAL CONDITIONS

F. AUTHORIZED DISCHARGES

The licensee is authorized to discharge only in accordance with the terms and conditions of this license and only from Outfall 002 as specified above. Discharges of wastewater from any other source are not authorized under this license.

G. OPERATIONS AND MAINTENANCE (O&M) PLAN

The licensee shall ensure that system components are property maintained and operated. 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 which are installed or used by the licensee.

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 the Department personnel upon request. **Within 90 days of completion of new and substantial upgrades of the waste water treatment facility**, the licensee shall submit the updated O&M Plan to their Department compliance inspector for review and comment. The licensee shall ensure that the following operations and maintenance provisions are implemented:

1. Semi-Annual inspections of the tanks to determine levels of accumulated grease or sludge. The licensee shall maintain a record of the inspections of all the system components, the name of inspectors, inspection dates, inspection results, observations, and maintenance recommended. Copies of inspection reports must be retained and be forwarded to the Department with monthly Discharge Monitoring Reports. Pumping of the tanks at least once every year, or more often if indicated by the inspections.

2. The licensee shall maintain a record of tank pumping including the location and date of pumping, quantity of material removed, other relevant observations. Also to be retained are information about the source of the septage or tank volume. Reports of the quantity of flow discharged on a monthly basis (to be forwarded to the Department) including observations of the leach field performance and from the observation ports in the disposal field (height of water level, characteristics of grease/sludge components, or short-circuiting in the wastewater disposal field).

3. This approval is limited to the methods and plans described in the application and supporting documents. Any variation is subject to review and approval prior to implementation. At no time shall the addition of septage cause or contribute to effluent violations. If such conditions exist, the introduction of septage into the treatment process or solids handling stream shall be suspended until effluent quality can be maintained. If, for any reason, the treatment process becomes overloaded, introduction of any more septage into the treatment process shall be reduced or terminated in order for the elimination of the overload condition. Septage known to be harmful to the treatment process shall not be accepted by the facility. Waste which contains potentially harmful levels of heavy metals, toxic chemicals, extreme pH, flammable or corrosive materials in concentrations harmful to the treatment process shall not be accepted by the facility.

SPECIAL CONDITIONS

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

The licensee shall maintain an Department approved ground water quality monitoring plan as outlined in the Department guidance document entitled *"Water Quality Monitoring Plan Details"*, enclosed as Attachment "1" of the Fact Sheet of this license. Because the facility already exists, many of the sections of Attachment "1" do not pertain, however, particular attention should be dedicated to section 9 of the Attachment.

Note that annual reporting (as referenced in section 9 of the *Plan Details*) are suspended, except for the fifth and final year of this license. If contamination is detected in the future, this condition may be reinstated. The report summarizing the prior five years of operation shall be submitted to, and in a format approved by, the Department, electronically and with a "hard copy."

All monitoring wells shall be equipped with a cap and lock to limit access and shall be maintained in a secure condition at all times. The integrity of the monitoring wells shall be verified annually.

The Department reserves the right to require increasing the depth and / or relocating any of the monitoring wells if the wells are found to be perennially dry or is determined to be not representative of ambient ground water conditions.

I. RE-OPENER CLAUSE

Upon evaluation of any required test result, 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 any time and with notice to the licensee, modify this license to require additional monitoring inspections and or reporting based on the new information.

J. SEVERABILITY

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

MAINE WASTE DISCHARGE LICENSE
FACT SHEET

Date: January 18, 2007

PERMIT COMPLIANCE SYSTEM NUMBER: **MEU508124**

LICENSE NUMBER: **W-008124-5J-B-R**

NAME AND MAILING ADDRESS OF APPLICANT:
Roderick Dyer
P.O. Box 436
Harrison, Maine 04040

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:
Roderick Dyer
722 Norway Road
Harrison, Maine 04040

REGION WHERE FACILITY DISCHARGE OCCURS: **Cumberland County**

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

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Roderick Dyer**
(207) 583-4546

1. APPLICATION SUMMARY

a. Application: The applicant has applied for a renewal of Waste Discharge License (WDL) #W008124-5J-A-N, which was issued on June 18, 2002 and expires on June 18, 2007. The application is for the continuing operation of a subsurface wastewater disposal system that is designed to treat septage leachate generated from a commercial septic tank pumping operation located on a 38.6-acre parcel northerly of Route 117. The operation removes septage and wastewater from septic tanks serving area residences with pumps mounted on tank-truck vehicles. Septage and wastewater pumped from septic tanks has a high Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), and other pollutant concentrations and requires adequate treatment before disposal. The treatment system includes bar racks and screens to separate solids from the wastewater, storage tanks, a polymer mixing tank, two sand filters, and a soil absorption area (often referred to as a leachfield) to dispose of the liquid fraction of the treated septage leachate.

The facility has been assigned a Permit Compliance System (PCS) tracking number MEU508124 for data gathering and retrieval purposes.

1. APPLICATION SUMMARY (Cont'd)

b. History: The most recent licensing/permitting actions include the following:

September 25, 1996 – The Department approved a solid waste disposal license (#S-008228-53-D-N) authorizing the land spreading of septage on the northerly side of Route 117 in Harrison. The septage landspreading occurs on the same parcel of land where the applicant proposes to dispose of supernatant generated by a commercial septage dewatering operation.

July 12, 2001 –The applicant submitted an application to the Department for a new Waste Discharge License (#W008124-5J-A-N) for the discharge of supernatant generated by a commercial septage dewatering operation. The application was for a subsurface wastewater disposal system that is designed to treat and attenuate 2,000 gallons per day of wastewater generated by the operation. On July 19, 2001, the Department accepted the application for processing. On June 18, 2002 the Department approved the application for the discharge to the sub-surface waste water disposal system.

December 7, 2006 – The Department administratively modified the license issued to Roderick Dyer, by reducing the monitoring frequency at the ground water monitoring wells from a monthly to a calendar quarter basis. All other terms and conditions of the license remain unchanged.

January 31, 2007 – The licensee submitted an application to the Department for renewal (#W008124-5J-B-R) of the license to discharge treated septage leachate waste water via the sub-surface waste water disposal system. The application was subsequently accepted as complete for processing by the Department on February 1, 2007.

c. Source Description: The facility will receive septage from periodic maintenance and pumping of area residential subsurface wastewater disposal systems. Only septic tanks serving residential structures are pumped by the applicant. There is no contribution from septic systems serving commercial or industrial users.

d. Waste Water Treatment: Septage is pumped from area septic tanks and transported and contained in the tank-trucks. The septage is then off-loaded through a 2" bar rack to a holding tank. The licensee uses polymer to dewater the septage and to supplement the treatment process. The liquid fraction of the septage is separated from the solid fraction and is then pumped to storage tank #1 (8,000 gallon capacity) by a 3 HP conveyor screener and drained to storage tank #2 (8,000 gallon capacity) where a mixing pump adds polymer in a container hopper. The liquid is then pumped to a 5,000 gallon storage tank #3 (The effluent from this tank is considered to be outfall #001). The material is then conveyed by a timed metered pump to the sand filter system for further processing of the wastewater. Two sand filters (each 8 X 24 feet) are used to inprove the wastewater quality prior to discharge. Each sand filter is designed to accommodate up to 2,000 gallons of wastewater. The hydraulic conductivity of the filters is expected to be greatest during startup and will diminish over time due to organic material accumulations on the surface and within the first few inches of the filter. When a filter's conductivity diminishes, the wastes will be directed to the second of the two sand filters, and the slow filter will be rejuvenated by vacuum suction of organics as described in the application.

1. APPLICATION SUMMARY (Cont'd)

Wastewater passing through the filter is then directed to two 1,000-gallon septic tanks in series and then to a soil absorption area located southerly from the filters via a pump calibrated to discharge up to 1,800 gallons per day. The soil absorption area measures 80 by 130 feet and contains three rows of three stone beds. Each stone bed contains a monitoring port that provides an opportunity to observe internal system performance and collect samples if necessary. Soils in the area of the soil absorption area are moderately well drained, Skerry fine sandy loam. Skerry soil is not considered to be a hydric soil type. Skerry soil is suitable for the discharge of waste water.

Monitoring wells have been located to intercept leachate plumes discharged from the leachfield area and will be monitored periodically in accordance with Special Condition Section A.2 of this license.

2. CONDITIONS OF LICENSES:

Maine law, 38 M.R.S.A. Section 414-A, requires that the effluent limitations prescribed for discharges 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 Water Classification System.

3. TREATMENT PLANT OPERATOR

The Department is not currently requiring the licensee to obtain a Wastewater Treatment Facility Operator Certificate under Title 32 M.R.S.A., Section 4171 et seq. Section 4171 typically deals with secondary treatment processes that are not utilized at this facility. The Department is however, currently considering developing a Subsurface Wastewater Treatment Facility Operator Certificate program. This facility would qualify for certification under that program. Upon renewal of the license five years from the effective date, it is expected the new program would have been adopted and the licensee would be required to be certified under the new program at that time.

4. RECEIVING WATER QUALITY STANDARDS:

Maine law, 38 M.R.S.A., Section 470 indicates that groundwater at the point of discharge is classified as Class GW-A receiving waters. Maine law, 38 M.R.S.A., Section 465-C, describes the standards for waters classified as Class GW-A 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 usage of these waters, other than that occurring from natural phenomena.

5. RECEIVING WATER QUALITY CONDITIONS:

The 2004 Water Quality Assessment (305b) Report, prepared by the Department pursuant to Section 305(b) of the Federal Water Pollution Control Act indicates that groundwater in the vicinity of the proposed subsurface waste water disposal area is attaining the standards of Class GW-A waters.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS:

Outfalls: The previous licensing action designated the influent sampling port as outfall #001. The sampling port was located at the discharge point on the storage tank where pre-treatment of the waste water has already occurred. The Department reviewed this location and determined that since pre-treatment has already occurred, it would not be representative as the influent sampling location. Therefore the Department has discontinued the sampling requirements at this location. Outfall #002 was designated in the previous licensing action as the effluent sampling port at the sand filters, just prior to discharge. This licensing action continues outfall #002 as the effluent sampling location.

Flow: The daily maximum flow limitation of 2,000 gallons per day in the previous licensing action is being carried forward in this licensing action based on the design of the system.

Conductivity, Specific Conductance & Temperature: Conductivity is considered a surveillance level monitoring parameter that is used as an early indicator of potential groundwater contamination. Actual conductivity is dependent on the temperature of the sample collected. This licensing action is changing the monitoring requirements from conductivity to specific conductance in order to provide standardized sampling methodology among similar types of facilities (and similarly, is requiring temperature values to be reported in centigrade measurements). Specific conductance values during the previous license, at outfall #002, have ranged between 73 to 196 umhos/cm and have averaged 141 umhos/cm. At monitoring wells, specific conductance values have ranged between 34 to 415 umhos/cm (a few values above 275 umhos/cm), and averaged 141 umhos/cm at well #1, and averaged 133 umhos/cm at well #2 and have averaged 234 umhos/cm at well #3. The Department has established a value of 275 umhos/cm as an action level for ground water monitoring locations. This licensing action carries forward the "report" requirement at all ground water monitoring wells and at outfall #002.

BOD: This licensing action eliminates sampling at outfall #001, but carries forward monitoring for BOD at outfall 002. BOD is a measure of pollutant strength and is an indicator of amount of oxygen necessary to stabilize a waste. Generally, higher BOD means more pollutants. BOD values at outfall #002, have ranged during the previous licensing action, between 8 and 149 mg/L and have averaged 40.5 mg/L. This licensing action is establishing a daily maximum limitation of 250 mg/L limitation for BOD at outfall #002, based on a best professional judgment of best practicable treatment of effluent quality that should be attained given the treatment system design.

TSS: This licensing action eliminates sampling at outfall #001 but carries forward monitoring at outfall 002 on a monthly basis, and in the groundwater monitoring wells on a quarterly basis. TSS is a measure of the component of solids in the wastewater and an indicator of the integrity of the monitoring wells and of the efficiency of the treatment process. Generally, the higher the TSS concentrations, the higher the pollutant strength of the waste material. TSS values at outfall #002 have ranged between 2 and 158 mg/L and averaged 34 mg/L over the course of the previous license. TSS values at monitoring wells have been consistently low (in the single and low double digit values). This licensing action is establishing a daily maximum limitation of 250 mg/L limitation for TSS at outfall #002 and a report requirement at the monitoring wells, based on a best professional judgment of best practicable treatment of effluent quality that should be attained given the treatment system design.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (Cont'd):

Nitrate-Nitrogen & total Kjeldahl nitrogen (TKN): Nitrogen compounds are by-products of the biological breakdown of ammonia and are inherent in domestic sanitary waste water. Nitrogen assumes different forms depending on the oxidation-reduction potential in soil and groundwater. The presence of a particular form of nitrogen indicates nutrient attenuation capacity of the site. The monitoring requirements include nitrate-nitrogen and TKN to determine treatment effectiveness. Monitoring these parameters can also help identify chronic leakage from the system. Nitrogen compounds can indicate human health concerns if elevated in drinking water supplies. The Nitrate-Nitrogen limit of 10 mg/L is a National Primary Drinking Water Standard and is being established in the ground water monitoring wells as a sampling parameter on a once per calendar quarter basis, and at the effluent discharge outfall, #002, on a once per month sampling basis. There is no established limit for TKN, therefore, this licensing action is carrying forward the existing monitoring frequency of once per month at waste water discharge outfall #002, and at a frequency of once per calendar quarter at the monitoring wells. For Nitrates, ground water monitoring wells indicate a range of 0.7 to 9.4 mg/L with an average value of 4.0 mg/L.

Phosphorus: Phosphorus is a nutrient of significance in lake watersheds as it contributes to eutrophication and algae growth. Excess concentrations may runoff the site and affect lake water quality downgradient from the site. The Department found that effluent values for phosphorus has been very low (average less than 0.01 mg/L) and that there are no surface water bodies that are likely to be impacted by discharges of phosphorus from this facility, therefore, this parameter is being eliminated as a monitoring requirement.

pH: The pH limit is being modified in this licensing action from 6.0-8.5 to 6.0 to 9.0 standard units. The modified pH limit is a best practicable treatment standard incorporated in similar waste discharge licenses issued by the Department. It is considered a surveillance level monitoring parameter that is used as an indicator of potential contamination.

COD: Chemical oxygen demand is a measure of the oxygen consuming capacity of organic matter present in wastewater. This analysis is not necessarily related to BOD as the chemical oxidant may react with substances that bacteria do not stabilize. Monthly monitoring of COD had been established in monitoring wells MW-1, MW-2, and MW-3 in the past. It is noted that sampling for COD produces a hazardous material as a by-product. Sampling for COD is being eliminated as part of this licensing action in lieu of measurements for dissolved oxygen, as it does not produce a hazardous material by-product of laboratory methodology, is less expensive to the licensee when compared with measurements for dissolved oxygen, and doesn't provide a means of comparison between the effluent quality and the ground water monitoring wells.

Dissolved Oxygen: Dissolved oxygen (DO) content in the monitoring wells are to be measured in lieu of chemical oxygen demand. DO is a measure of the amount of oxygen contained in the water column. It provides a measure of the degree of oxygen demanding compounds that are in the soil water. Diminished DO or downward trends of DO may be associated with pollutant plumes that have been discharged to the sub-surface environment in the well capture zone. Sampling in the wells is required on a quarterly basis on a "report" requirement.

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 groundwater to meet standards for Class GW-A classification.

8. PUBLIC COMMENTS:

Public notice of this application was made in the Lewiston Sun Journal newspaper that has general circulation in the vicinity of the project on or about January 30, 2007. The Department receives public comments on an application until the date a final agency action is taken on that application. Those persons receiving copies of draft 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 permitting 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) 287-7658

10 .RESPONSE TO COMMENTS:

The Department solicited comments on the proposed Draft Waste Discharge License to be issued to Roderick Dyer during the public comment period. The Department did not receive significant comments during the public comment period, therefore a Response to Comment section was not prepared.

Water Quality Monitoring Plan Details *Attachment "1"*

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 established, permanent benchmark. Include a map showing all monitoring points.

2. Outline of the monitoring frequency at each monitoring point, by the number of sampling/analysis events per year (e.g. quarterly, etc.) and by month (e.g. April, September, etc.).

3. Provision for obtaining adequate data on background water quality and/or levels, and for using a statistically-valid method for determining a significant increase in parameter concentrations (e.g. contamination levels, but not necessarily MCL's/MEG's). At a minimum, determination of background water quality or levels must consist of quarterly sampling/analysis for 1 year.

4. List of parameters to be analyzed, including references to the laboratory analysis methods to be utilized for each parameter, detection limits for each analysis method, and the MCL's/MEG's for all applicable parameters. All monitoring must include field parameters (conductivity, temperature, pH, and TDS), in addition to parameters specific to the monitoring program objectives.

5. Identification of the qualified personnel to take water level measurements and water quality analysis samples. These tasks should not be done by the applicant or employee of the applicant, but if proposed, then item 6 below must be addressed.

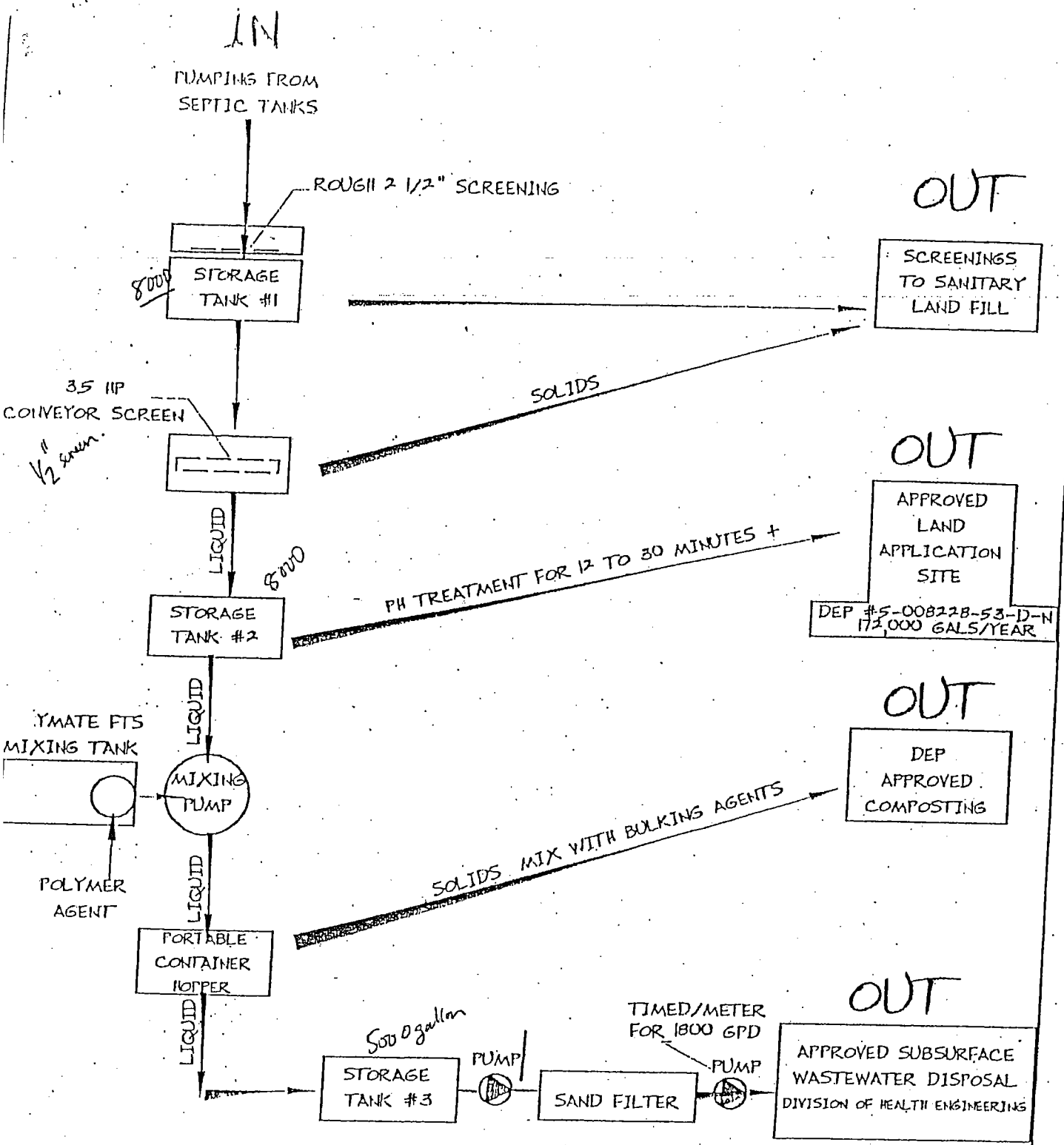
6. Written certification from a qualified expert that personnel to conduct monitoring are or will be adequately trained to properly collect measurements and/or samples by approved methods and protocols.

7. Description of the equipment and methods to be employed for water level measurement and/or water quality analysis sample-taking.

8. Description of the quality assurance/quality control and chain-of-custody protocols to be followed for water quality sampling, preservation, storage, transport, and laboratory analysis.

9. Provision for a professional qualified in water chemistry or groundwater flow interpretation to summarize, evaluate, and provide recommendations on the monitoring results that is submitted annually to the Department, unless a problem is evident, in which case the Department is to be notified immediately. Annual reports must include historical, as well as the most recent year's monitoring data for each monitoring point, which is presented in a tabular format. Reports must be signed/dated by the professional responsible for their preparation.

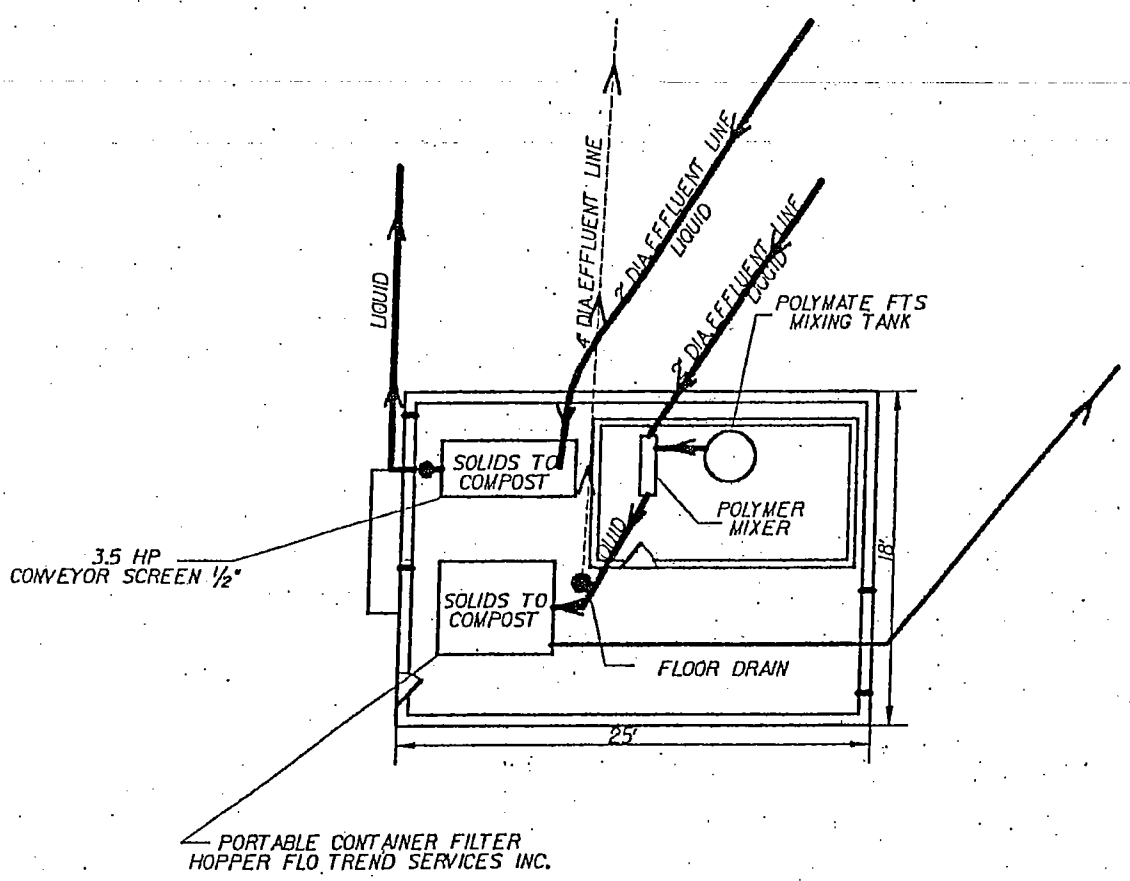
10. A provision that, if water levels or water quality monitoring results indicate adverse effects are occurring as a result of the project activity, then an evaluation will be made by a qualified professional and an appropriate remedial action/mitigation plan will be developed and submitted to the Department for re-view and approval.



DYER SEPTAGE WASTE MANAGEMENT FLOW CHART

By: B.J. | Checked By: A.F. | Date: 5/12/2000

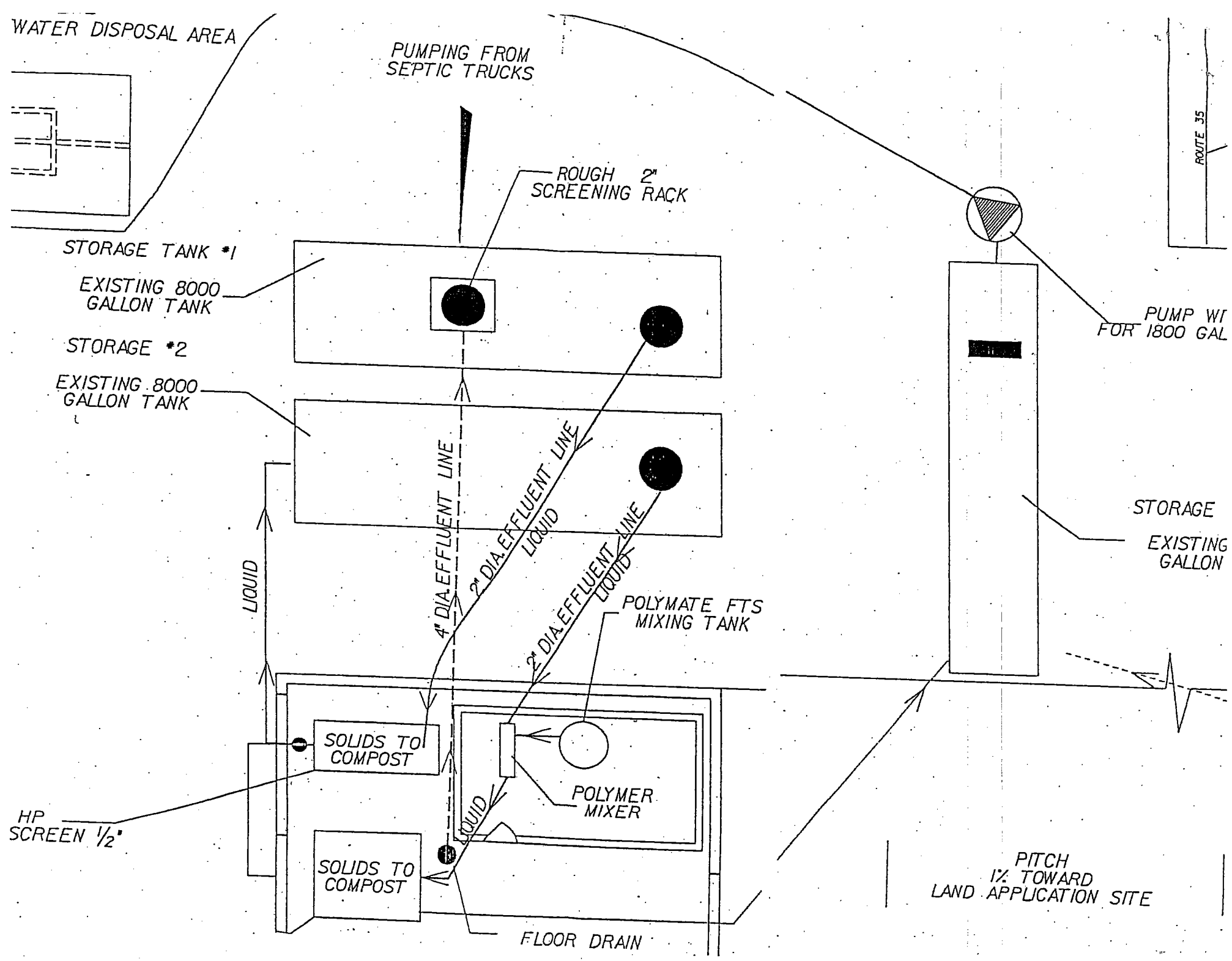
Albert Frick Associates, Inc.
Soil Scientists & Site Evaluators
Gorham, Maine 04038

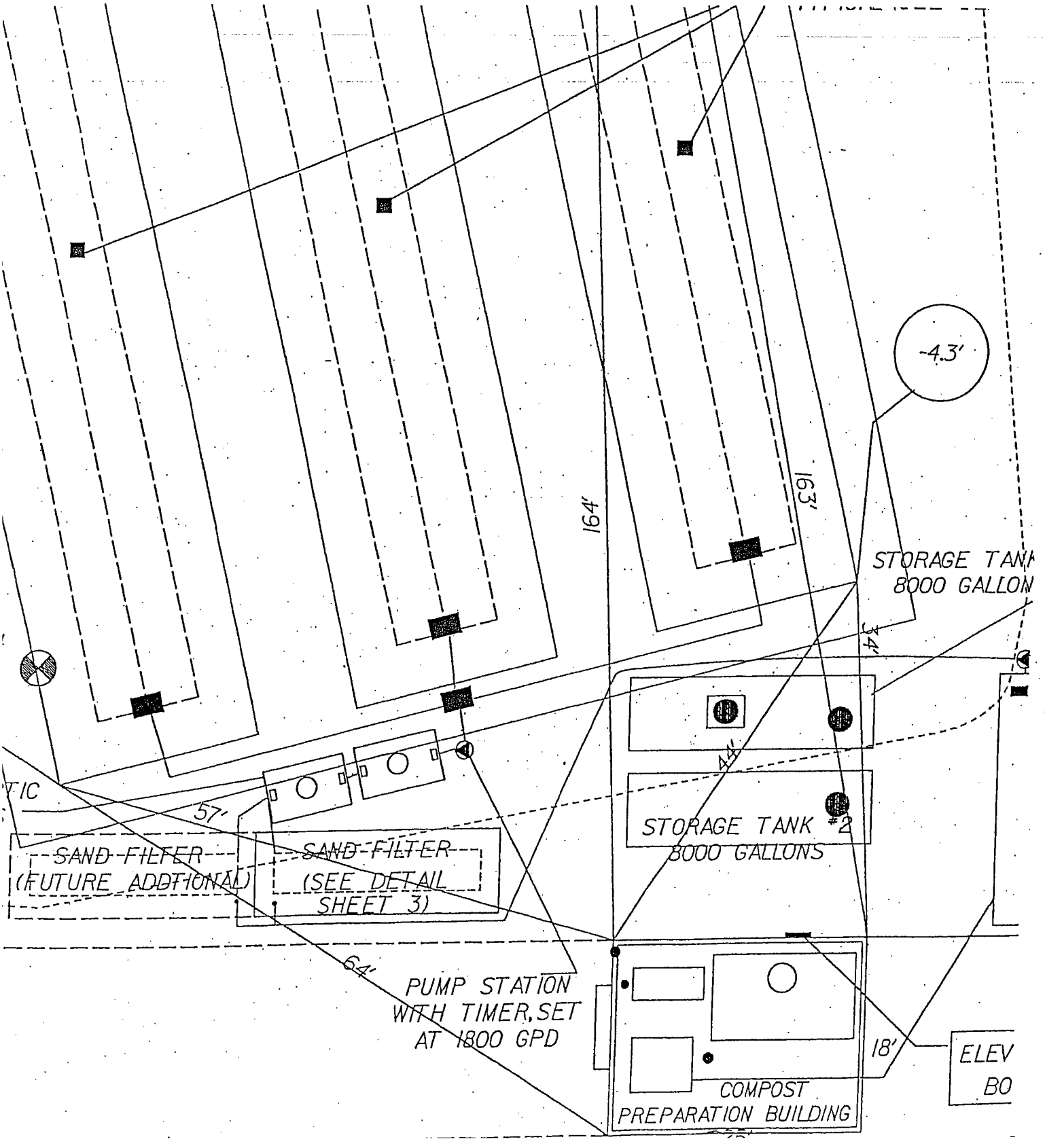


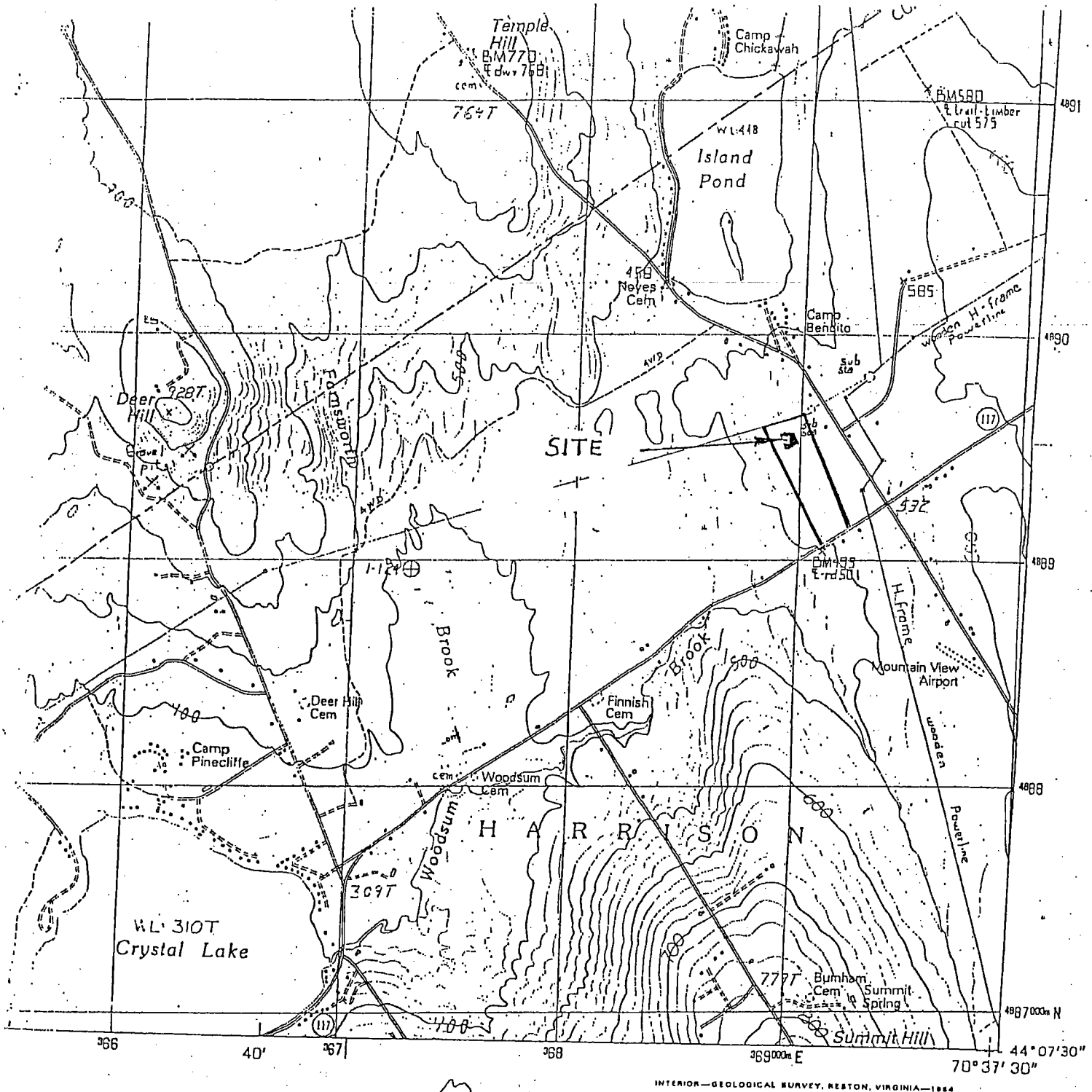
COMPOST FACILITY BUILDING PLAN
RICK DYER
ROUTE 117
HARRISON, MAINE

Albert Frick Associates, Inc.
Soil Scientists & Site Evaluators
Gorham, Maine 04038

e:	Revision Description	Drawn By: B.D.	Checked By: A.F.
		Date: 8/8/00	Scale: 1" = 10'


WATER DISPOSAL AREA
PUMPING FROM SEPTIC TRUCKS
ROUGH 2" SCREENING RACK
ROUTE 35
STORAGE TANK #1
EXISTING 8000 GALLON TANK
STORAGE #2
EXISTING 8000 GALLON TANK
PUMP W/ FOR 1800 GAL
STORAGE
EXISTING GALLON
4" DIA. EFFLUENT LINE
2" DIA. EFFLUENT LINE
LIQUID
2" DIA. EFFLUENT LINE
LIQUID
LIQUID
POLYMATE FTS MIXING TANK
SOLIDS TO COMPOST
POLYMER MIXER
LIQUID
HP SCREEN 1/2"
SOLIDS TO COMPOST
FLOOR DRAIN
PITCH 1% TOWARD LAND APPLICATION SITE


-4.3'
164'
163'
STORAGE TANK
8000 GALLON
34'
44'
STORAGE TANK #2
8000 GALLONS
57'
SAND FILTER
(FUTURE ADDITIONAL)
SAND FILTER
(SEE DETAIL
SHEET 3)
64'
PUMP STATION
WITH TIMER, SET
AT 1800 GPD
18'
COMPOST
PREPARATION BUILDING
ELEV
BO



INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1984

2000 1

7000 8000 9000 10 000

MAINE

QUADRANGLE LOCATION

ROAD LEGEND

Improved Road .....

Unimproved Road .....

Trail .....

Interstate Route U. S. Route State Route

1	2	3	1 East Stoneham 2 Greenwood 3 West Paris 4 North Waterford 5 Norway 6 Pleasant Mtn 7 Bridgton 8 Casco
4		5	
6	7	8	

ADJOINING 7.5' QUADRANGLE NAMES

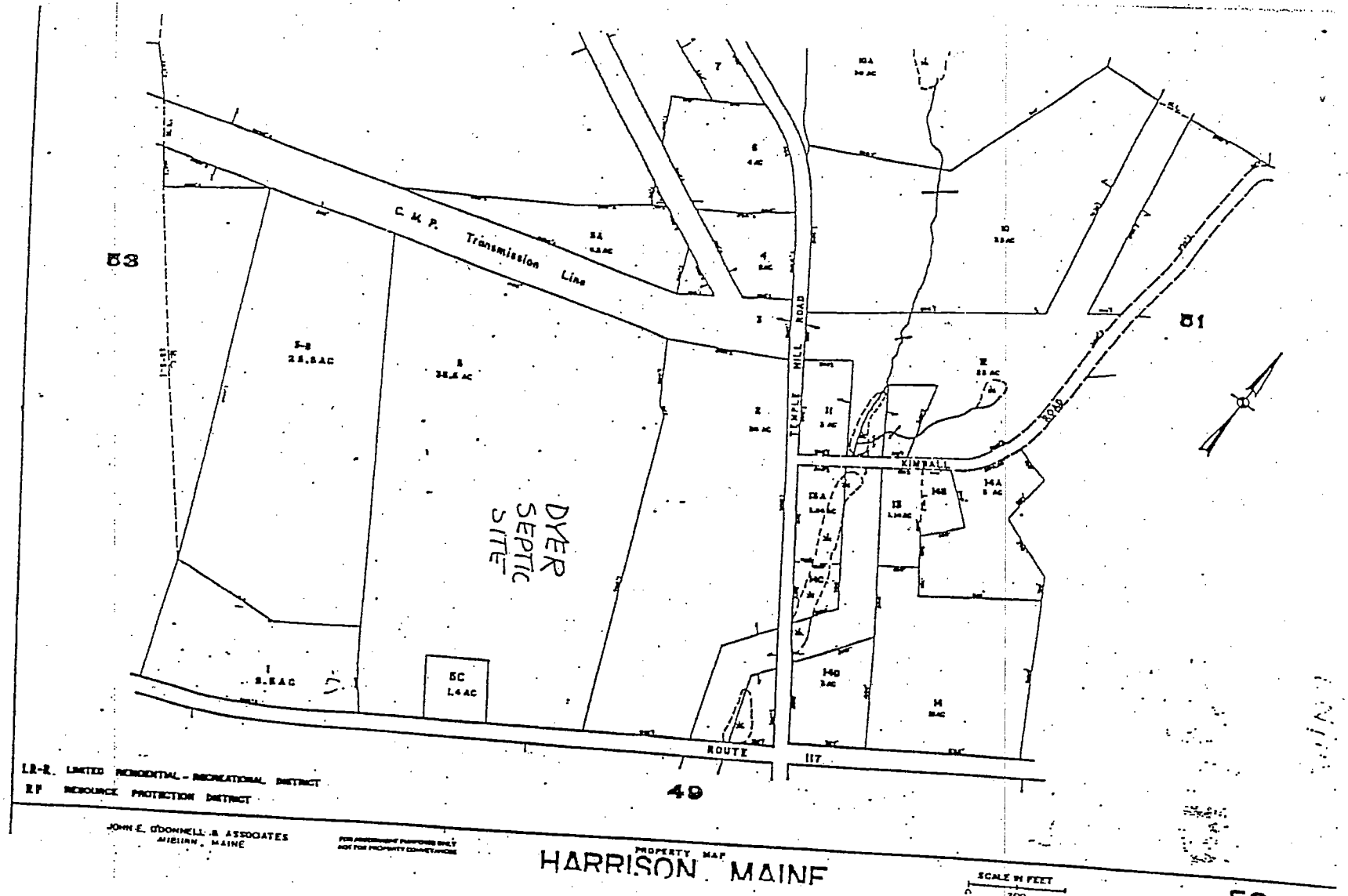
WATERFORD FLAT, MAINE

PROVISIONAL EDITION 1983

44070-B6-TF-024

Y STANDARDS
VIRGINIA 22092

EXHIBIT #1


C.M.P. Transmission Line
TEMPLE HILL ROAD
KIMBALL
DYER SEPTIC SITE
ROUTE 117
53
51
49
52
LR-R. LIMITED RESIDENTIAL - RECREATIONAL DISTRICT
RP RESOURCE PROTECTION DISTRICT
JOHN E. O'DONNELL & ASSOCIATES
AUBURN, MAINE
PROPERTY MAP
HARRISON, MAINE
SCALE IN FEET
0
200

Dyer, Route 117, Harrison