STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

May 16, 2007

Mr. Mark Draper
Solid Waste Director
Tri-Community Recycling & Sanitary Landfill
P.O. Box 605, Murphy Road
Caribou, ME. 04736

RE: Maine Waste Discharge License (WDL) Application #W008246-5J-A-N
Permit Compliance System Tracking #MEU508246
Final License

Dear Mr. Draper:

Enclosed please find a copy of your **final** Maine WDL which was approved by the Department of Environmental Protection. Please read the license and its attached conditions carefully. You must follow the conditions in the license 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: William Sheehan, DEP/NMRO
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

TRI-COMMUNITY RECYCLING & SANITARY LANDFILL SURFACE WASTE WATER DISPOSAL SYSTEM) FORT FAIRFIELD, AROOSTOOK COUNTY, ME.)	)	PROTECTION AND IMPROVEMENT OF WATERS
#MEU508246	)	WASTE DISCHARGE LICENSE
#W008246-5J-A-N **APPROVAL**	)	**NEW**

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 TRI-COMMUNITY RECYCLING & SANITARY LANDFILL (TCL hereinafter) with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

The Tri-Community Recycling & Sanitary Landfill (TCL) has submitted an application to the Department for a Waste Discharge License (WDL) to operate a surface waste water disposal (spray irrigation) system at its facility in Fort Fairfield, Maine. TCL proposes to receive and dewater septage generated by light and residential entities in the area and utilize a spray irrigation system to seasonally (May – November) dispose of up to 750,000 gallons of the liquid portion of the dewatering process onto a 7.5-acre parcel [five fields (SF#1, SF#2, SF#3, SF#4, SF#5) each 1.5 acres] to the north of the active landfill. It is noted TCL has also reserved an additional 3.0-acre parcel [two fields (SF#6 and SF#7) each 1.5 acres] to the west of the aforementioned spray fields if needed for additional disposal area.

LICENSE SUMMARY

a. Terms and conditions – Major components of this licensing action include;

1. Establishing limitations for the spray irrigation field and along with certain operational constraints in order to provide consistency across similar facilities licensed by the Department;

2. Requiring the submission of a *Spray Irrigation Performance Report* as an exhibit to the application for the next license renewal.

3. Requiring the licensee to develop and maintain an up-to-date *Operations & Maintenance (O&M) Plan.*

4. Requiring ground water quality monitoring.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated March 16, 2007, and subject to the Conditions listed below, the Department makes the following conclusions:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.

2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.

3. The provisions of the State's antidegradation policy, 38 M.R.S.A. §464(4)(F), will be met, in that:

   (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;

   (b) Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;

   (c) The standards of classification of the receiving water body are met or, where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;

   (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification that higher water quality will be maintained and protected; and

   (e) Where a discharge will result in lowering the existing water quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.

4. The discharge will be subject to effluent limitations that require application of best practicable treatment.

ACTION

THEREFORE, the Department APPROVES the above noted application of the TRI-COMMUNITY RECYCLING & SANITARY LANDFILL to operate a surface waste water disposal system and seasonally dispose of up to 122,175 gallons per week (750,000 gallons per year) of treated waste water from a septage dewatering operation, SUBJECT TO THE ATTACHED 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 17TH DAY OF May, 2007.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAVID P. LITTELL, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: September 18, 2006.

Date of application acceptance: September 25, 2006.

FILED
MAY 21 2007
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE

Date filed with Board of Environmental Protection _____.

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

W82465JA 5/15/07

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

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

	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Biochemical Oxygen Demand *[00310]*	200 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]*
Metals (Total): Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel and Zinc *[01002, 01027, 01034, 01042, 01051, 71900, 01067, 01092]*	Report ug/L *[28]*	1/5 Years[3] *[01/5Y]*	Grab *[GR]*

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

See pages 7 & 8 for applicable footnotes.

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

2. The **SPRAY IRRIGATION FIELD (SF#1, SF#2, SF#3, SF#4, SF#5, SF#6, SF#7)** shall be limited and monitored as specified below:

(May 15th – November 15th)

	Monthly Total as specified	**Weekly Average** as specified	**Daily Maximum** as specified	**Measurement Frequency** as specified	**Sample Type** as specified
Application Rate (Weekly) (4) *[51125]*	---	16,290 gal/acre(5) (0.6 inches/acre) *[8B]*	---	1/Week *[01/07]*	Calculate *[CA]*
Flow - Total Gallons *[82220]*	Report (Gallons) *[80]*	---	---	1/Month *[01/30]*	Calculate *[CA]*

See pages 7 & 8 for applicable footnotes.

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS

3. GROUND WATER MONITORING WELL (MW-2 & MW-7)

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

See pages 7 & 8 for applicable footnotes.

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

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

Holding Tank Effluent

(1) Holding tank effluent shall be sampled at a point prior to being pumped to the spray field and shall be representative of what is actually being applied to the field. 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, c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services.

(2) Holding tank effluent sampling shall be conducted 1/Month between May – November (inclusive). The permittee is not required to test for these parameters during a month where no waste water was disposed of via the disposal system.

(3) Metals testing shall be performed upon commencement of operations, again during the twelve-month period prior to the expiration date of the license and at a minimum, every five years thereafter.

Spray-Irrigation Field

(4) Weekly is defined as Sunday through Saturday. 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 portion of the field(s) 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.

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

Groundwater Monitoring

(6) Depth to water level below the land surface shall be measured in the spring (**April or May**) and in the fall (**October or November**)of each calendar year and measured to the nearest one tenth ($1/10^{th}$) of a foot as referenced from the surface of the ground at the base of the monitoring well.

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

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

(7) Ground water sampling (MW-2 and MW-7) shall be conducted the months in the spring (**April or May**) and in the fall (**October or November**) of each year. Sampling, handling and preservation shall be conducted in accordance with federally approved methods (See footnote #1). 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 regardless of whether waste water was disposed of via the spray-irrigation system or not.

B. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent shall not contain materials in concentrations or combinations which would impair the uses designated by the classification of the groundwater.

2. The effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

C. TREATMENT PLANT OPERATOR

The treatment facility must be operated by a person holding a minimum of a **Grade SITS-I** certificate [or Registered Maine Professional Engineer] pursuant to Title 32 M.R.S.A., Section 4171 et seq. All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

D. AUTHORIZED DISCHARGES

The licensee is authorized to dispose of waste water only in accordance with the terms and conditions of this WDL and only to the 10.5-acre spray irrigation disposal field identified in the September 2006 Waste Discharge License application (and as revised in a letter dated November 29, 2006) submitted to the Department. Discharge of waste water to or from any other location or from sources other than those indicated on said application requires written authorization from the Department.

SPECIAL CONDITIONS

E. NOTIFICATION REQUIREMENT

In accordance with Standard Condition #6, the licensee shall notify the Department of the any substantial change in the volume or character of pollutants being introduced into the waste water collection and 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 waste water collection and treatment system; and

(b) any anticipated impact caused by the change in the quantity or quality of the waste water to be discharged from the treatment system.

F. GENERAL OPERATIONAL CONSTRAINTS

1. All waste waters shall receive primary treatment through a properly designed, operated and maintained treatment system prior to disposal.

2. The surface waste water disposal facilities shall be effectively maintained and operated at all times so that there is no discharge to surface waters, nor cause or contribute to contamination of ground water which will render it unsatisfactory for usage as a public drinking water supply.

3. The operation of 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 attributable to the surface waste water disposal system, 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.

SPECIAL CONDITIONS

G. SPRAY IRRIGATION OPERATIONAL CONSTRAINTS

1. Suitable vegetative cover shall be maintained. Waste water may not be applied to areas without sufficient vegetation or ground cover as to prevent erosion or surface water runoff outside the designated boundaries of the spray field.

2. At least 10 inches of separation from the ground surface to the ground water table shall be present prior to spray irrigating.

3. No waste water shall be applied to the site following a rainfall accumulation exceeding 1.0 inch within the previous 8-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.

5. No waste water shall be applied when there is any evidence of frost or frozen ground within the upper 10 inches of the soil profile.

6. No traffic or equipment shall be allowed in the spray-irrigation field except where installation occurs or where normal operations and maintenance are performed.

H. SPRAY IRRIGATION OPERATIONAL PROCEDURES, LOGS AND REPORTS

1. Prior to the commencement of spray irrigation for the season, the licensee shall notify the Department's compliance inspector that they have verified that site conditions are appropriate (frozen ground, soil moisture, etc.) for spray irrigation.

2. The licensee shall at all times maintain in good working order and operate at maximum efficiency all waste water collection, treatment and/or control facilities. 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).

3. **The licensee shall maintain a daily log** of all spray irrigation operation which records, the date, weather and soil conditions, rainfall, areas irrigated, volume sprayed (gallons), application rates (daily and weekly), and other relevant observations/comments from daily inspections. The log shall be in accordance with the format of the *"Monthly Operations Log"* provided as Attachment "A" of this license.

SPECIAL CONDITIONS

H. SPRAY IRRIGATION OPERATIONAL PROCEDURES, LOGS AND REPORTS

Weekly application rates shall be reported in accordance with the format of the *"Spray Irrigation Application Report by Week"* provided as Attachment "B" of this license. The *Monthly Operations Log* and *Spray Irrigation Application Report by Week* for each month shall be submitted to the Department as an attachment to the monthly Discharge Monitoring Reports (DMR's). Copies will also be maintained on site for Department review and for license operation maintenance purposes.

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 but not limited to pumps, spray apparatus, and piping. At a minimum, the logs shall include the unique identifier [see Special Condition F(5)], the date of maintenance, type of maintenance performed, names or person performing the maintenance, and other relevant system observations.

J. GROUND WATER MONITORING WELLS

1. **On or before the first ground water sampling event in the spring of 2007,** the licensee shall submit a letter to the Department's compliance inspector stating that it has reviewed its Ground Water Quality Monitoring Plan and deemed it to be consistent with Department guidance for ground water sampling. See Department guidance on preparing said plan in Attachment B of the attached Fact Sheet. Failure to do so will result in any ground water quality monitoring data obtained prior to formal approval of the plan by the Department being in jeopardy of not being accepted by the Department.

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. The integrity of the monitoring wells shall also be verified annually.

3. The Department reserves the right to require increasing the depth and/or relocating any of the ground water monitoring wells if the well is perennially dry, frequently provides insufficient water for sampling or is determined not to be representative of ground water conditions.

SPECIAL CONDITIONS

K. SPRAY IRRIGATION PERFORMANCE REPORT

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

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

L. OPERATIONS AND MAINTENANCE (O & M) PLAN

On or before May 1, 2007, *(PCS Event 24599),* the licensee shall have a current written comprehensive Operation & Maintenance (O & M) Plan. The plan shall provide a systematic approach by which the licensee shall at all times, properly operate and maintain all facilities and the systems of treatment and control (and related appurtenances) which are installed or used by the licensee to achieve compliance with the conditions of this license.

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

M. PUBLIC ACCESS TO LAND APPLICATION SITES AND SIGNAGE

Access to the land application sites shall be limited during the season of active site use. The licensee shall install signs measuring at least 8 ½" x 11", in areas of concern around the perimeter of the spray irrigation site that inform the general public that the area is being used to dispose of sanitary waste waters. 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

N. MONITORING AND REPORTING

The results of the monitoring requirements shall be reported on forms approved by the Department (Discharge Monitoring Reports-DMR's) in the units specified and in accordance with the attached Standard Conditions. The forms shall be submitted monthly and **shall be postmarked by 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 by the fifteenth (15th) day of the month**. The results should be directed to the attention of the Department's facility inspector at:

Department of Environmental Protection
Bureau of Land and Water Quality
Division of Water Quality Management
1235 Central Drive
Presque Isle, Maine 04769

O. REOPENING OF THE LICENSE FOR MODIFICATIONS

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

P. 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 aspects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

ATTACHMENT A

Monthly Operations Log

W008244-5J-A-N **(Month/Year)** _____

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

ATTACHMENT B

Spray Application Report by Week W008244-5J-A-N (Month/Year) _____

Weekly Application Rate 16,290 gallons/acre (0.6 inches)

Field Name/#	Effective Spray Area (Acres)	Weekly Limit (Gallons/Acre)	Actual Spray Application Rates (Gallons per Acre)					Number of Exceptions to Weekly Limit	Monthly Average
			Week 1	Week 2	Week 3	Week 4	Week 5		

Note: 1 acre-inch is equivalent to 27,150 gallons of liquid
27,150 gallons per acre is equivalent to 1.0 inch

Total Number of Exceptions

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

Signature of Responsible Official: _____, Date _____

MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: March 16, 2007

PERMIT NUMBER: **MEU508246**
LICENSE NUMBER: **W008246-5J-A-N**

NAME AND ADDRESS OF APPLICANT:

TRI-COMMUNITYY RECYCLING & SANITARY LANDFILL
Tri-Community Recycling & Sanitary Landfill
P.O. Box 605, Murphy Road
Caribou, ME. 04736

COUNTY: **Aroostook County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

Tri-Community Recycling & Sanitary Landfill
Murphy Road
Fort Fairfield, ME.

RECEIVING WATER / CLASSIFICATION: **Ground water /Class GW-A**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Mark Draper**
Solid Waste Director
(207) 374-9987

1. APPLICATION SUMMARY

a. Application – The Tri-Community Recycling & Sanitary Landfill (TCL) has submitted an application to the Department for a Waste Discharge License (WDL) to operate a surface waste water disposal (spray irrigation) system at its facility in Fort Fairfield, Maine. TCL proposes to receive and dewater septage generated by light commercial and residential entities in the area and utilize a spray irrigation system to seasonally (May – November) dispose of up to 750,000 gallons of the liquid portion of the dewatering process onto a 7.5-acre parcel [five fields (SF#1, SF#2, SF#3, SF#4, SF#5) each 1.5 acres] to the north of the active landfill. It is noted TCL has also reserved an additional 3.0-acre parcel [two fields (SF#6 and SF#7) each 1.5 acres] to the west of the aforementioned spray fields if needed for additional disposal area.

1. APPLICATION SUMMARY

b. Source Description – Tri-Community Landfill currently holds a Septage Storage License # S-004838-S4-F-A in accordance with the State of Maine, Environmental Protection, Chapter 420, Septage Management Rules, to receive, store, and dewater residential and light commercial septage sludge from septic holding tanks and similar systems. This material is brought to the facility by local septage haulers and deposited within the existing storage tanks. Currently the facility receives approximately 550,000 gallons of waste per year. It is the intent of the facility to process a maximum of 750,000 gallons per year. The facility currently has the capability to temporarily store approximately 202,000 gallons of waste septage. Septage haulers discharge their load through a bar screen and into large on-site tanks. Two of the existing storage tanks are capable of holding 45,000 gallons (each) and are constructed with double walled construction. Local haulers from surrounding communities are provided access to the site six days a week throughout the year. The material received is typical septage from residential and light commercial septic holding tanks.

c. Site information - The proposed spray irrigation site is situated along the boundaries of the City of Caribou and Town of Fort Fairfield. The proposed spray site consists of a 10.5-acre area situated within a 40-acre grassed field along the north side of the TCL property as shown in Attachment A. In February of 1995 a Medium Intensity Soil survey was conducted in the area recommended for spray irrigation of septage waste. The proposed site consists of Perham soils with varying slope as indicated by the soil survey as performed by William Hersey, Certified Soil Scientist. Site topography indicates the site slopes in a southwesterly direction. The selected spray irrigation area is currently open field (grass meadow) with thick grass growth. Perham soils are described by the State of Maine and United States Department of Agriculture Soil Conservation Service, as published by the Maine Association of Professional Soil Scientists, January 1988, as a series consisting of very deep, moderately well drained soils formed in glacial till derived mainly from slate and shale. The permeability of the soil is shown to be 0.6 - 2.0 inches per hour.

The proposed site is bordered by an agricultural field to the north, a wooded buffer to the east and west side, and the landfill to the south. There are currently no residential dwellings located within 1 mile of the proposed spray irrigation site. There is a small drainage ditch which exists between the proposed site and the existing landfill. This ditch remains dry most of the year. Snow melt and Spring runoff within this ditch tend to flow in a westerly direction toward Nichols Brook, a tributary of the Madawaska River. The site currently has two existing ground water monitoring wells (MW-2 and MW-7) located south of the proposed spray irrigation site as shown in Attachment A of this Fact Sheet.

1. APPLICATION SUMMARY (cont'd)

d. Pretreatment - The treatment process at TCL is a simplified process which uses above ground storage tanks, in-tank mixers, a fixed transfer pump, a polymer injection system, and a portable containerized dewatering unit for the dewatering of residential septage sludge. Local haulers access the facility and transfer residential septage into one of two on-site above-ground steel storage tanks. Septage is conveyed through a bar screen prior to entering the storage tanks in order to filter out large debris.

The facility currently uses a septage dewatering system to separate the liquid fraction and solids fraction of the waste. The "DeTainer" trailer system is a roll off style container with removable interior filter panels. The pretreatment process also uses a polymer additive injected into the process wastewater to flock suspend particles which coagulate inside the container. The container filter panels are equipped with 700-micron filter screens which allow clear liquids to separate from the solids and be pumped into adjacent storage tanks or transport trailers. Current process operations have the capability of treating approximately 24,000 gallons per day. Once the dewatering container has reached its capacity the unit is allowed to dewater overnight and then the solids are disposed inside the active landfill. The manufacturer of the "DeTainer" states that the liquid waste characteristics, once filtered, reduces COD, BOD, and suspended solids by approximately 50%. The permittee has submitted test results of the processed waste water in a letter to the Department dated November 29, 2006. Separated liquids are currently transported to the Caribou Utilities District for disposal. This application would allow TCL to spray irrigate the treated liquids onto an approved site at a regulated rate.

e. Storage - The Tri-Community Landfill facility currently has the capacity to temporarily store approximately 202,000 gallons of septage on site. Two relatively new storage tanks can hold approximately 90,000 gallons and have double-wall containment. These tanks are the two primary septage storage tanks on site and are equipped with twenty-five horse power in-tank mixers used to resuspend settled solids prior to processing. The remaining 112,000 gallons is contained within single-walled storage tanks.

The facility currently holds a Septage Storage License # S-004838-S4-F-A in accordance with the State of Maine, Environmental Protection, Chapter 420, Septage Management Rules, to receive, store, and dewater residential and light commercial septage sludge from septic holding tanks and similar systems. This material is brought to the facility by local septage haulers and deposited within the existing storage tanks. Currently the facility receives approximately 550,000 gallons of waste per year. It is the intent of the facility to process a maximum of 750,000 gallons per year.

1. APPLICATION SUMMARY (cont'd)

The proposed spray irrigation process is to treat the liquid fraction of the waste through soil infiltration. During the winter months septage brought to the site will be stored within the existing tanks. Once the ground has thawed in the spring, the facility will begin processing the stored material and spray irrigate the liquid portion. Daily discharge of separated septage will be approximately 24,000 gallons per day. Past volumes of received septage shows that between mid-November and mid-May the facility receives between 110,000 gallons and 120,000 gallons of septage, or about 20% of the annual volume. It is unlikely that this volume will vary much in the future since most septic tanks are pumped and cleaned during the spring, summer and fall months when the ground is not frozen. Currently there is enough capacity within the existing storage tanks to hold waste until acceptable spray irrigation conditions arrive each Spring. If, however, storage of waste became an issue, Tri-Community Landfill would need to revert back to its traditional means of waste disposal and transport some of the processed wastewater to the Caribou Utilities District.

f. Land treatment - TCL is proposing to implement a spray irrigation process for the liquid fractions of the treated septage in late Spring of 2007. The proposed plans include the purchase of a portable agricultural spray irrigation pump, above-ground aluminum spray irrigation transmission piping, and a used Reel Rain Traveler manufactured by Hobb-Adams Engineering. Attachment A of this Fact Sheet depicts the location of the proposed transmission line and spray irrigation area. Manufacturer's specifications indicate the Reel Rain model #2370 has sufficient hose capacity to travel 1,210 lineal feet per pull, with a typical spray width of 270 feet for a spray area of approximately 7.5 acres with an additional 3.0 acres of reserved land for a total of 10 acres. Irrigation rates for the Rain Reel are controlled based on pressure, hose size, and travel speeds. The proposed spray irrigation site consists of a 7.5 acre area consisting of very deep, moderately well drained Perham soils situated within a 40 acre grassed field along the north side of the TCL property. The grass which is currently growing on the property is likely a mixture of different grass species but is primarily a tall fescue type grass. The expected nutrient loadings to the spray irrigation site are 1,000 lbs/year of nitrogen and 250 lb/year of phosphorus.

Based on published nutrient uptake rates for fescue type grass , the licensee has calculated the following area requirement to assimilate the loadings:

Nitrogen up-take: (1,000 lb/year) / (assumed 150 lb/ac per year) = 6.8 acres.
Phosphorus up-take: (250 lb/year) / (26.7 lb/ac per year) = 9.4 acres

1. APPLICATION SUMMARY (cont'd)

The hydraulic loading rate is based on the permeability of the soil. The EPA design manual for Land Treatment of Municipal Wastewater states that the maximum daily design percolation rate should not exceed 4% to 10% of the minimum soil permeability. In this case the Perham soil is shown to have a permeability of approximately be 0.6 - 2.0 inches per hour. The calculation below is using the more conservative percolation rate for this scenario.

Percolation rate = (permeabilty, inches/hour)(24 hours/day)(4%) =
=(0.6 inches/hour)(24 hours/day)(0.04) = 0.60 inches/day

Based on an application rate of 0.6 inches per day, each acre can receive 2,178 cubic feet of water, or approximately 16,300 gallons. Utilizing this application rate each process day will require approximately 1.5 acres [(24,000 gallons per day) / (16,300 gallons/day per acre)].

At this time licensee estimates that at peak operation, the facility will require approximately 32 days of processing each year (750,000 gallons per year / 24,000 gallons per day). Processing for the purpose of spray irrigation will be between May 15 and November 15 of each year. Each of the five daily spray irrigation sites will be 1.5 acres in size for a total of 7.5 acres. This will provide enough acreage to allow the facility to spray irrigate each day per work week, and provide for a sufficient resting period between application days. The estimated total of 10.5 acres is also sufficient to handle all nutrient loadings associated with Nitrogen and Phosphorus. TCL plans to continue mowing the proposed spray irrigation site twice annually to maintain existing soil nutrient conditions.

g. Construction schedule - TCL amended its existing Septage Storage License (S-004838-S4-F-A) in compliance with State of Maine, Septage Management Rules, Chapter 420 in 2005. The License amendment included the construction of a new septage storage and dewatering system for the treatment and temporary storage of residential septage waste. TCL installed two new septage containment units capable of storing approximately 45,000 gallons each, which enhanced existing storage capabilities to a maximum of 202,000 gallons. A dewatering system was also implemented for the separation of liquid and solid fractions of the stored septage. Liquid fractions are currently hauled to the Caribou Utilities District treatment facility for disposal. The solid fractions are disposed within the secure solid waste landfill.

1. APPLICATION SUMMARY (cont'd)

h. Operational and environmental monitoring – The licensee states that it is proposing to spray irrigate the liquid fraction at a rate of 0.60 inches/acre/day. Each of the five daily spray irrigation sites will be 1.5 acres in size for a total of 7.5 acres. The five areas will be staked/marked in the field to indicate to personnel the starting and ending position of the spray irrigation equipment. It will be necessary at the beginning of the spray irrigation season to adjust the equipment so that the proper irrigation rate is established. The spray irrigation area will be mowed twice per year to promote plant growth and nutrient adsorption. It is noted the licensee has not proposed any monitoring of the ground water.

2. LICENSE SUMMARY

a. Terms and conditions – Major components of this licensing action include;

1. Establishing limitations for the spray irrigation field along with certain operational constraints in order to provide consistency across similar facilities licensed by the Department;

2. Requiring the submission of a *Spray Irrigation Performance Report* as an exhibit to the application for the next license renewal.

3. Requiring the licensee to develop and maintain an up-to-date *Operations & Maintenance (O&M) Plan.*

4. Requiring ground water quality monitoring.

b. History: The most current relevant regulatory actions and or significant events include the following;

September 18, 2006 – TLC submitted an application to the Department for a new WDL for the operation of a surface waste water disposal system.

3. EFFLUENT LIMITATIONAS AND MONITORING REQUIREMENTS

a. Application rate – The licensee has proposed an application rate of 0.6 inches/acre/week or 16,290 gallons/acre/week. With five spray fields at 1.5 acres each (3.0 acres held in reserve) for a total of 7.5 acres utilized per week, this license authorizes the facility to dispose of 122,175 gallons/week. This application rate is significantly lower than the low end of the application rate range (1.5 inches/acre/week) established in other similar licensing actions.

3. EFFLUENT LIMITATIONAS AND MONITORING REQUIREMENTS (cont'd)

b. Biochemical Oxygen Demand (BOD_5) & Total Suspended Solids (TSS) - Monitoring for BOD and TSS in the effluent from the holding tank yields an indication the condition of the waste water being applied, of excessive loading of organic material and the effectiveness of the spray-irrigation treatment process. The Department has historically limited the effluent BOD and TSS to 100 mg/L from storage lagoons/holding tanks for discharges associated with the activities similar to the proposal at TLC and for spray application rates of $\geq$ 1.5 inches/acre/week. Test results submitted to the Department indicate the treated waste water for the TLC facility has elevated BOD levels (200 mg/L) and better than expected TSS levels (<100 mg/L). Being that the application rate established in this licensing action is less than half of the more common 1.5 inches/acre/week rate, the Department is establishing a daily maximum BOD concentration limit of 200 mg/L based on a best professional judgment of a limitation that is attainable given the high strength nature of the raw septage. This limitation also represents a 99% removal rate.

   For TSS, the Department is establishing a technology based best practicable treatment (BPT) limitation of 100 mg/L that is common to most spray irrigation systems licensed by the Department. TSS in the groundwater monitoring yields an indication of the integrity of the monitoring wells.

c. Nitrate-nitrogen - Nitrogen compounds are by-products of the biological breakdown of ammonia and are inherent in domestic 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 of human health concern. The limit of 10 mg/L is a National Primary Drinking Water standard.

d. Specific Conductance, Temperature, Dissolved Oxygen, and pH – These parameters are considered to be "field" parameters meaning that they are measured directly in the field via instrumentation and does not require laboratory analysis. They are considered a surveillance level monitoring parameters that are used as an early-warning indicator of potential groundwater contamination. Dissolved oxygen is an important parameter because the spray irrigation system has the potential to introduce significant organic carbon to groundwater and it is important to determine if the increased organic loading reduces the amount of the dissolved oxygen present in groundwater.

e. Metals – Monitoring for metals is important as low pH waste waters applied to the soils may enhance the leaching of metals from the soils which in turn will be released to ground water. There are both primary and/or secondary drinking water standards associated with metals.

4. SYSTEM CALIBRATION

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

Calibration involves collecting and measuring flow at several locations in the application area (typically a grid pattern of containers with uniform diameters). Rain gauges work best because they already have a graduated scale from which to read the application amount without having to perform additional calculations. Attachment C of this Fact Sheet entitled *"Example Spray Irrigation Field Calibration Report Form"* is provided as an aid to the licensee in the recalibration process. It is recommended that this form or a similar form be submitted to the Department Compliance Inspector shortly after relicensing and annually thereafter, or whenever operating conditions are changed from assumed design parameters.

5. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

As permitted, the Department has determined the existing and designated uses of the receiving water uses will be maintained and protected and the discharge will not cause or contribute to failure of the receiving water to meets assigned classification.

6. PUBLIC COMMENTS

Public notice of this application was made in the Aroostook Republican newspaper on or about September 6, 2006. The Department receives public comments on an application until the date a final agency action is taken on that application. Those persons receiving copies of draft 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.

7. DEPARTMENT CONTACTS

Additional information concerning this permitting 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) 287-3901
E-mail: gregg.wood@maine.gov

8. RESPONSE TO COMMENTS

During the period March 16, 2007 through issuance of this license, the Department solicited comments from state and federal agencies as well as parties that expressed interest in the proposed draft license for the Tri-Community Landfill. The Department did not receive any comments from said parties that resulted in any substantive changes to the final license. Therefore, no Response to Comments has been prepared.

ATTACHMENT B

Water Quality Monitoring Plan Details

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

1. Identification/summary of all monitoring points (e.g. monitoring wells, lysimeters, springs, etc.) to be used for measurement of water levels or for water quality analysis. Monitoring points must have an assigned identification symbol (alpha/numeric), and, where appropriate, elevation referenced to an es-tablished, permanent benchmark. Include a map showing all monitoring points.

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

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

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

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

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

Water Quality Monitoring Plan Details

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.

ATTACHMENT C

Example Spray Irrigation Field Calibration Report Form

Background Data

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

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

System Calibration

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

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

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

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

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

New Calibration Data

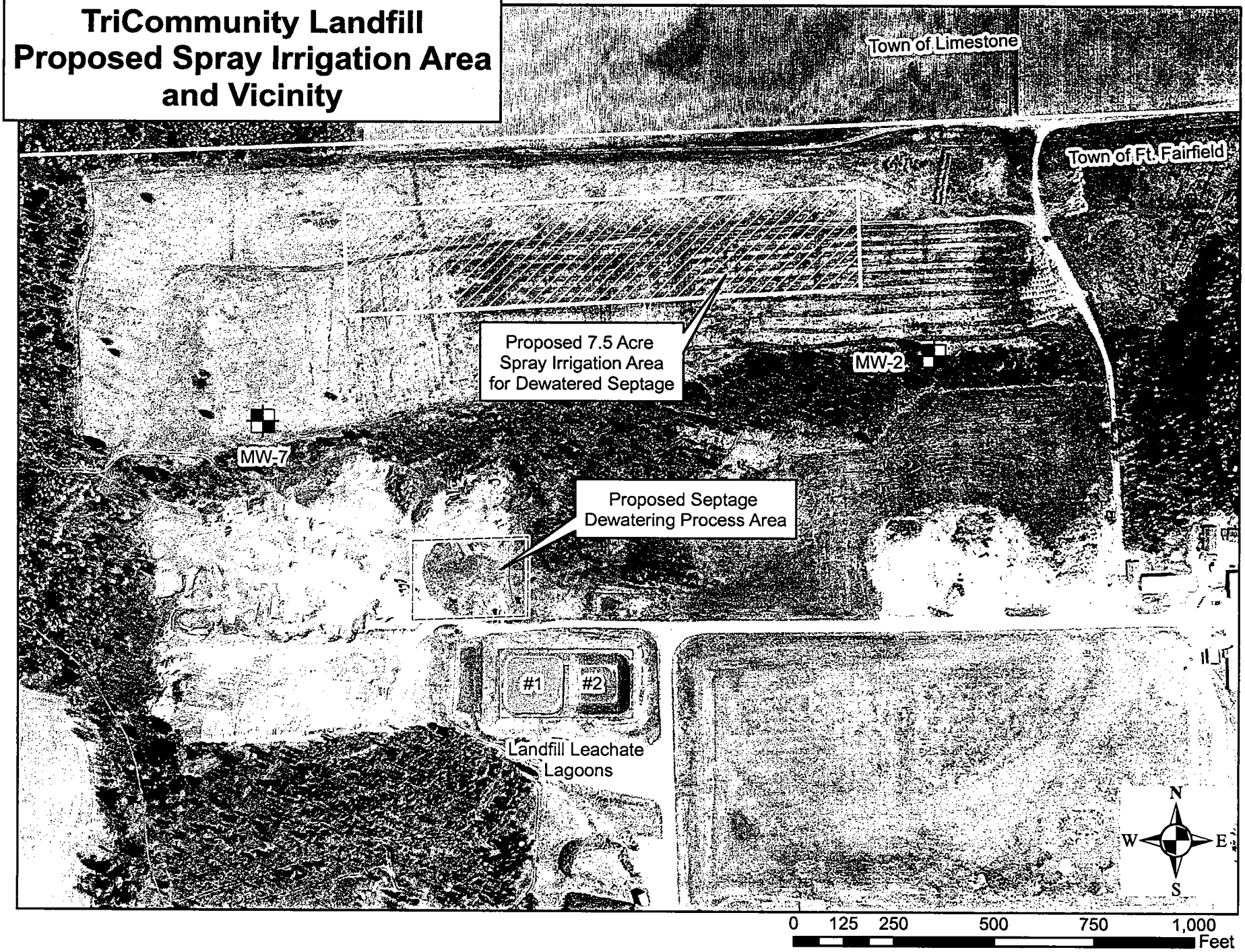
What changes to the estimates of wastewater flow are proposed, if any and why? And are the licensed application rates satisfied?

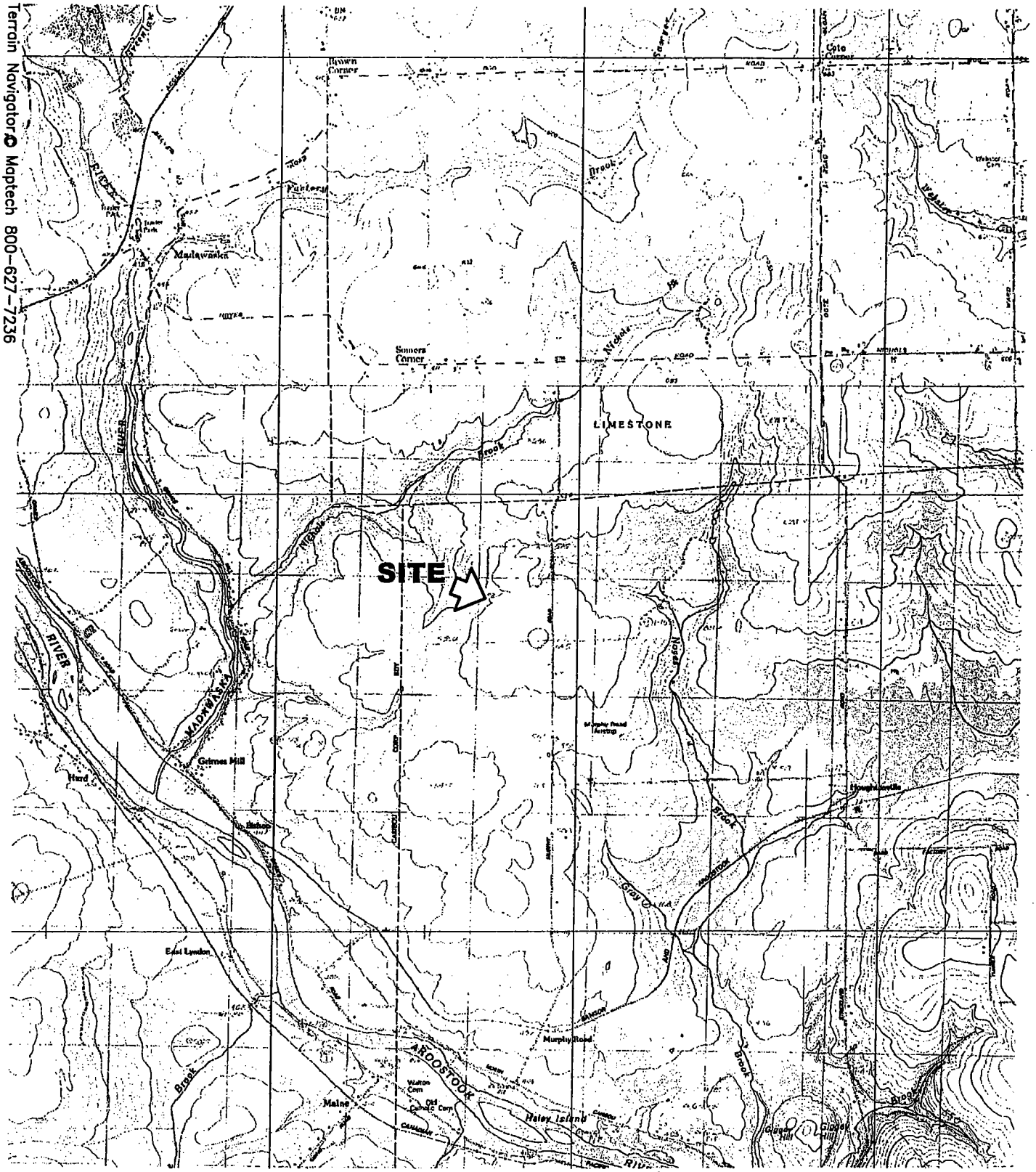
Any adjustments to improve uniformity of spray applications?

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

ATTACHMENT A

TriCommunity Landfill
Proposed Spray Irrigation Area and Vicinity





SOURCE:
U.S.G.S. TOPOGRAPHIC QUADRANGLE
GOODWIN QUADRANGLE
@ 1:24,000

CES INC. 1978
ENGINEERS · SURVEYORS
465 So. Main Street, P.O. Box 639, Brewer, ME 04412
Tel: 207-989-4824 Fax 207-989-4881

TRI-COMMUNITY RECYCLING SPRAY IRRIGATION WASTE DISCHARGE LICENSE

LOCATION MAP

8-22-06
4539

ATTACHMENT B

Water Quality Monitoring Plan Details

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

1. Identification/summary of all monitoring points (e.g. monitoring wells, lysimeters, springs, etc.) to be used for measurement of water levels or for water quality analysis. Monitoring points must have an assigned identification symbol (alpha/numeric), and, where appropriate, elevation referenced to an es-tablished, permanent benchmark. Include a map showing all monitoring points.

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

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

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

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

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

Water Quality Monitoring Plan Details

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.

ATTACHMENT C

Example Spray Irrigation Field Calibration Report Form

Background Data

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

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

System Calibration

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

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

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

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

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

New Calibration Data

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

Any adjustments to improve uniformity of spray applications?

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