STATE OF MAINE
DEPARTMENT OF
ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

October 30, 2018

Mr. Gilles R. St. Pierre
Superintendent, Mapleton Sewer District
P.O. Box 53
Mapleton, ME. 04757
Grstp2016@gmail.com

Sent via electronic mail
Delivery confirmation requested

RE: Maine Permit Compliance System #MEU508147
Maine Waste Discharge License (WDL) Application #W008147-6B-D-R
Proposed Draft WDL - Renewal

Dear Mr. St. Pierre:

Attached is a proposed draft Maine WDL which the Department proposes to issue for your facility as a final document after opportunity for your review and comment. By transmittal of this letter, you are provided with an opportunity to comment on the proposed draft license and its special and standard conditions. If it contains errors or does not accurately reflect present or proposed conditions, please respond to this Department so that changes can be considered.

By copy of this letter, the Department is requesting comments on the proposed draft license from various state and federal agencies and from any other parties who have notified the Department of their interest in this matter.

The comment period begins on October 30, 2018 and ends on November 30, 2018. All comments on the proposed draft license must be received in the Department of Environmental Protection office on or before the close of business Friday, November 30, 2018. Failure to submit comments in a timely fashion will result in the proposed draft license document being issued as drafted.

Comments in writing should be submitted to my attention at the following address:

Maine Department of Environmental Protection
Bureau of Water Quality
Division of Water Quality Management
17 State House Station
Augusta, ME 04333-0017
Cindy.L.Dionne@maine.gov

If you have any questions regarding the matter, please feel free to contact me.

Sincerely,

Cindy L. Dionne
Division of Water Quality Management
Bureau of Water Quality
ph: 207-287-7823

Enc.

ec: Pamela Parker, DEP
William Sheehan, DEP
Lori Mitchell, DEP
Fred Corey, Aroostook Band of Micmac Indians
Marelyn Vega, USEPA
Richard Carvalho, USEPA
Sharri Venno, Houlton Band of Maliseet Indians

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

MAPLETON SEWER DISTRICT	)	PROTECTION AND IMPROVEMENT
MAPLETON, AROOSTOOK CTY., MAINE	)	OF WATERS
PUBLICLY OWNED TREATMENT WORKS	)	
SURFACE WASTEWATER DISPOSAL SYSTEM	)	
#MEU508147	)	WASTE DISCHARGE LICENSE
#W008147-6B-D-R **APPROVAL**	)	**RENEWAL**

Pursuant to *Conditions of licenses*, 38 M.R.S. § 414-A, and applicable regulations, the Maine Department of Environmental Protection (Department) has considered the application of the MAPLETON SEWER DISTRICT (MSD), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

MSD submitted a timely and complete application to the Department for renewal of Waste Discharge License (WDL) #W008147-5L-C-R / Permit Compliance System (PCS) tracking #MEU508147 which was issued on October 4, 2013 for a five-year term. The 10/4/13 WDL authorized MSD to discharge 40 million gallons annually of treated sanitary wastewater to ground water via spray irrigation to land in Mapleton, Maine.

LICENSE SUMMARY

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

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CONCLUSIONS

Based on the findings summarized in the attached Fact Sheet dated October 30, 2018, 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, *Classification of Maine waters,* 38 M.R.S. § 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 natural 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 discharges will be subject to effluent limitations that require application of best practicable treatment as defined in *Conditions of licenses* 38 M.R.S. § 414-A(1)(D).

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ACTION

THEREFORE, the Department APPROVES the above noted application of the MAPLETON SEWER DISTRICT to operate a surface wastewater disposal system with a total design capacity of 0.09 MGD, of which the following quantities will be treated and disposed of via spray irrigation:

645,000 gallons per week for Spray Field #SF2 (West, April 1 – November 30); and
663,000 gallons per week for Spray Field #SF3 (East, April 1 – November 30).

A total annual maximum of 24 million gallons will be treated and disposed of at Snowmaking Field #SM1 as identified below:

Unspecified quantity discharged via snowmaking (November 1 – March 31); and
488,700 gallons per week applied by spray irrigation (April 1 – October 31).

All discharge is treated sanitary wastewater to be applied onto land in Mapleton, Maine, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

1. *Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable to All* Permits, revised July 1, 2002, copy attached.

2. The attached Special Conditions, including any effluent limitations and monitoring requirements.

3. This license and the authorization to discharge become effective upon the date of the signature below and expire five (5) years from the effective date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this license, the authorization to discharge and the terms and conditions of this license and all modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [*Maine Administrative Procedure Act*, 5 M.R.S. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(21)(A) (amended June 9, 2018)]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS _____ DAY OF _____ 2018.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
For PAUL MERCER, Commissioner

Date of initial receipt of application: August 31, 2018
Date of application acceptance: August 31, 2018

Date filed with Board of Environmental Protection _____

This Order prepared by Cindy L. Dionne, BUREAU OF WATER QUALITY

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The licensee is authorized to discharge treated sanitary wastewater from a storage lagoon to land. The **STORAGE LAGOON EFFLUENT** (**OUTFALL #001A)** must be limited and monitored as specified below[(1)(2)].

Effluent Characteristic	Discharge Limitations		Minimum Monitoring Requirements	
	Daily Minimum	**Daily Maximum**	**Measurement Frequency**	**Sample Type**
Biochemical Oxygen Demand *[00310]*	---	100 mg/L *[19]*	1/Month[(3)] *[01/30]*	Grab *[GR]*
Total Suspended Solids *[00530]*	---	100 mg/L *[19]*	1/Month[(3)] *[01/30]*	Grab *[GR]*
Nitrate-Nitrogen *[00620]*	---	Report mg/L *[19]*	1/Month[(3)] *[01/30]*	Grab *[GR]*
pH (Standard Units) *[00400]*	---	Report S.U. *[12]*	1/Month[(3)] *[01/30]*	Grab *[GR]*
Lagoon Freeboard[(4)] *[82564]*	Report feet *[27]*	---	1/Week[(3)] *[01/07]*	Measure *[MS]*
Metals (Total): Arsenic, Cadmium, Chromium, Copper, Lead, Nickel and Zinc *[01002,01027, 01034,01042, 01051, 01067, 01092]*	---	Report µg/L *[28]*	1/5 Years[(5)] *[01/5Y]*	Grab *[GR]*

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

FOOTNOTES: See Pages 9 through 10 of this license for applicable footnotes.

SPECIAL CONDITIONS

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

2. The application of treated sanitary wastewater to the land at **SPRAY IRRIGATION FIELDS SF#2-West, and SF#3-East (OUTFALLS #SF2A and #SF3A, respectively)** via a spray irrigation system must be limited to the time period of **April 1 to November 30 of each calendar year** and as specified below:

Effluent Characteristic	**Discharge Limitations**			**Minimum Monitoring Requirements**	
	Monthly Total	**Weekly Maximum**	**Daily Maximum**	**Measurement Frequency**	**Sample Type**
SF#2 (West) Application Rate *[51125]*	---	645,000 gallons[(6)] *[8B]*	---	1/Week *[01/07]*	Calculate *[CA]*
SF#2 (West) Flow *[51500]*	Report Total Gallons *[80]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
SF#3 (East) Application Rate *[51125]*	---	663,000 gallons[(6)] *[8B]*	---	1/Week *[01/07]*	Calculate *[CA]*
SF#3 (East) Flow *[51500]*	Report Total Gallons *[80]*	---	---	1/Month *[01/30]*	Calculate *[CA]*

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

FOOTNOTES: **See Pages 9 through 10 of this license for applicable footnotes.**

SPECIAL CONDITIONS

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

3. A total annual maximum of 24 million gallons of treated sanitary wastewater may be applied to the land at **Snowmaking Field (OUTFALL #SM1A)** via a **spray irrigation** system and must be limited and monitored as specified below:

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Annual Total	**Monthly Total**	**Weekly Maximum**	**Daily Maximum**	**Measurement Frequency**	**Sample Type**
Spray Irrigation (#SM1A) Application Rate *(April 1 – October 31)* *[51125]*	---	---	488,700 gallons[(6)] *[8B]*	---	1/Week *[01/07]*	Calculate *[CA]*
Snow Making (#SM1A) Application Rate *(November 1 – March 31)* *[51128]*	---	Report (Gallons) *[80]*	---	---	---	---
Flow - Total Gallons Combined Snow and Spray[(7)] *[51500]*	24 Million Gallons *[57]*	Report (Gallons) *[80]*	---	---	1/Month *[01/30]*	Calculate *[CA]*

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

FOOTNOTES: See Pages 9 through 10 of this license for applicable footnotes.

SPECIAL CONDITIONS

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

4. **GROUNDWATER MONITORING WELLS** MW-1, MW-2, MW-2A, MW-3, MW-3A, MW-4, MW-5, and MW-6 (OUTFALLS # MW1A, MW2A, MW2B, MW3A, MW3B, MW4A, MW5A, and MW6A) must be limited and monitored as specified below.

Monitoring Characteristic	**Limitations**	**Minimum Monitoring Requirements**	
	Daily Maximum	**Measurement Frequency**	**Sample Type**
Depth to Water Level Below Land Surface *[72019]*	Report (feet)**(8)** *[27]*	2/Year**(9)** *[02/YR]*	Measure *[MS]*
Nitrate-Nitrogen *[00620]*	10 mg/L *[19]*	2/Year**(9)** *[02/YR]*	Grab *[GR]*
Specific Conductance **(10,11)** *[00095]*	Report (umhos/cm) *[11]*	2/Year**(9)** *[02/YR]*	Grab *[GR]*
Temperature **(10)** *[00011]*	Report (°C) *[04]*	2/Year**(9)** *[02/YR]*	Grab *[GR]*
pH (Standard Units) **(10)** *[00400]*	Report (S.U.) *[12]*	2/Year**(9)** *[02/YR]*	Grab *[GR]*
Total Suspended Solids *[00530]*	Report (mg/L) *[19]*	2/Year**(9)** *[02/YR]*	Grab *[GR]*
Metals (Total): Arsenic, Cadmium, Chromium, Copper, Lead, Nickel and Zinc *[01002, 01027, 01034, 01042, 01051, 01067, 01092]*	Report µg/L *[28]*	1/5 Years**(5)(13)** *[01/5Y]*	Grab *[GR]*

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

FOOTNOTES: See Pages 9 through 10 of this license for applicable footnotes.

SPECIAL CONDITIONS

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

5. Sampling of the LAGOON UNDERDRAIN SYSTEM (OUTFALL #UD1A) must be conducted as specified below:

Monitoring Characteristic	Limitations		Minimum Monitoring Requirements	
	Weekly Average	**Daily Maximum**	**Measurement Frequency**	**Sample Type**
Nitrate-Nitrogen *[00620]*	---	Report mg/L *[19]*	1/Year**(12)** *[01/YR]*	Grab *[GR]*

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

FOOTNOTES: See Pages 9 through 10 of this license for applicable footnotes.

SPECIAL CONDITIONS

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

FOOTNOTES

1. **Sampling** – Any change in sampling location must be approved by the Department in writing. The licensee must conduct sampling and analysis in accordance with; a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis must be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services for wastewater. Samples that are sent to a publicly owned treatment works (POTW) licensed pursuant to *Waste discharge licenses,* 38 M.R.S. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules,* 10-144 CMR 263 (effective April 1, 2010). Laboratory facilities that analyze compliance samples in-house are subject to the provisions and restrictions of 10-144 CMR 263. If the licensee monitors any pollutant more frequently than required by the license using test procedures approved under 40 CFR part 136 or as specified in this license, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR).

2. **Storage Lagoon Effluent Sampling Location -** Storage lagoon effluent sampling must be conducted at a point in the operations building prior to being pumped to the spray field(s) or snowmaking field and must be representative of what is actually being applied to the fields.

3. **Storage Lagoon Effluent Sampling Frequency -** Storage lagoon effluent sampling must be conducted on a year-round basis. The District is not required to test for the monthly parameters during a month in which no wastewater was disposed of via the disposal system.

4. **Lagoon Freeboard -** Storage lagoon freeboard must be reported as the mathematical difference between the water level in the lagoon and the lowest elevation point in the lagoon berm. It must be measured weekly to the nearest one tenth ($1/10^{th}$) of a foot, with the minimum monthly value reported on the DMR. If site conditions prevent safe or accurate measurements, the licensee must estimate this value and indicate this to the Department.

5. **Screening Level Metals Testing –** The licensee must conduct one round of testing for the specified metals **during the second or third calendar quarter of the fourth year of the license**, unless otherwise specified by the Department.

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS

FOOTNOTES (cont'd)

6. **Weekly Maximum for Spray Irrigation -** "Weekly" is defined as Sunday through Saturday. The licensee must measure the flow of wastewater to the irrigation area by the use of a flow measuring device that is checked for calibration at least once per calendar year. For DMR reporting purposes, the licensee must 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**.** See Footnote 7 for conditions specific to spray irrigation on the snowmaking field.

7. **Annual Limit** – The snowmaking field is subject to an annual combined snowmaking and spray irrigation application limit of 24 million gallons of wastewater per year. For the purposes of this limit, the "year" will run from November 1 through October 31. The volume of wastewater allotment remaining after the end of the November 1 through March 31 snowmaking season may be applied through spray irrigation during April 1 through October 31, subject to the application rate and other applicable conditions contained in this license. In addition to the amount of wastewater applied per month via snowmaking and spray irrigation, the licensee must report the "year's" cumulative amount applied to date.

8. **Depth to Water Level -** Depth to water level must be 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.

9. **Groundwater Monitoring Frequency -** Groundwater monitoring wells must be sampled during the months of **May and October** of each year, unless otherwise specified by the Department.

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

11. **Specific Conductance -** Temperature must be calibrated to 25.0°C. Specific Conductance values are considered to be "field" parameters meaning that they are measured directly in the field via instrumentation and does not require laboratory analysis. However, in certain instances, specific conductance samples may be preserved and forwarded to a laboratory for evaluation. The licensee is required to test for this parameter whether wastewater was disposed of via the spray irrigation system or not. Specific conductance values indicating a statistically significant trend upward or sudden spikes from previous levels may necessitate the need for additional ground water testing requirements.

12. **Lagoon Underdrain Monitoring -** Lagoon underdrain sampling must be conducted in the month of **August** of each year, unless otherwise specified by the Department. Underdrain samples must be collected at the manhole structure (MH-B) located just to the northeast corner of the storage lagoon and south of the Operations Building.

SPECIAL CONDITIONS

B. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent must not contain materials in concentrations or combinations which would impair the usages designated for the classification of the ground water.

2. The effluent must not lower the quality of any classified body of water below such classification, (ground water is a classified body of water under 38 M.R.S. § 465-C) 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 II,** Spray Irrigation Treatment System (SITS) certificate, a Grade II Biological Treatment System Operator certificate, or a Maine Professional Engineer (PE) certificate pursuant to 32 M.R.S. § 4171-4182 *et seq*. and *Regulations for Wastewater Operator Certification*, 06-096 CMR 531 (effective May 8, 2006). All proposed contracts for facility operation by any person must be approved by the Department before the licensee may engage the services of the contract operator.

D. AUTHORIZED DISCHARGES

The licensee is authorized to discharge only in accordance with: 1) the licensee's General Application for Waste Discharge License, accepted for processing on August 31, 2018; 2) the terms and conditions of this license; and 3) only to the spray irrigation disposal fields identified in the Waste Discharge License application. Discharges of wastewater from any other point source(s) are not authorized under this license, and must be reported in accordance with Standard Condition D(1)(F), *Twenty-four hour reporting*, of this license.

E. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the licensee must notify the Department of the following:

1. Any introduction of pollutants into the wastewater collection and treatment system from an indirect discharger in a primary industrial category discharging process wastewater; and

2. Any substantial change in the volume or character of pollutants being introduced into the wastewater collection and treatment system by a source introducing pollutants to the system at the time of license issuance. For the purposes of this section, notice regarding substantial change must include information on:

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

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

SPECIAL CONDITIONS

F. GENERAL OPERATIONAL CONSTRAINTS

1. All wastewater must receive biological treatment through a properly designed, operated and maintained lagoon system prior to disposal via spray irrigation or snowmaking.

2. The spray irrigation and snowmaking facilities must be effectively maintained and operated at all times so that there is no discharge to surface waters, nor any contamination of groundwater which will render it unsatisfactory for usage as a public drinking water supply.

3. The surface wastewater disposal system must not cause the lowering of the quality of the groundwater, as measured in the groundwater 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 *Drinking Water Regulations*, 22 M.R.S. § 2611.

   In the event the groundwater monitoring results indicate adverse effects, the licensee may be required to take immediate remedial action(s), which may include but not be limited to, adjustment of the irrigation schedule or application rates, a reduction of the pollutant loading, or ceasing operation of the system until the Department determines that such actions are no longer required.

4. The Department must be notified as soon as the licensee becomes aware of any threat to public health, unlicensed discharge of wastewater, sanitary system overflows (SSO's) or any malfunction that threatens the proper operation of the system. Notification must be made in accordance with the attached Standard Condition #4 of this license. A *sanitary sewer overflow* (SSO) is the release of raw sewage from a sanitary collection system prior to reaching the treatment plant or facility. Spills out of manholes, into basements, onto municipal or private property, etc., and into the waters of the State are all considered to be SSO's.

5. The licensee must maintain a file on the location of all system components and relevant features. Each component must be mapped and field located sufficiently to allow adequate inspections and monitoring by both the licensee and the Department.

6. All system components including collection pipes, tanks, manholes, pumps, pumping stations, spray / snow disposal fields, and monitoring wells must be identified and referenced by a unique identifier (alphabetic, numeric, or alpha-numeric) in all logs and reports.

SPECIAL CONDITIONS

F. GENERAL OPERATIONAL CONSTRAINTS (cont'd)

7. The licensee must at all times maintain in good working order and operate at maximum efficiency all wastewater collection, treatment and/or control facilities. **Within one hour after start-up of the spray-irrigation and snowmaking systems**, the licensee must inspect the spray-irrigation and snowmaking site ***or*** have other means to check the system for leakage in the piping system and determine if individual sprayheads and pump(s) are functioning as designed, and verify that application rates are appropriate for the existing site conditions. The procedures used to determine the system is functioning as designed must be described in the facility's O&M manual. Should significant malfunctions or leaks be detected, the licensee must shut down the malfunctioning/leaking sections of the spray and snowmaking system and make necessary repairs before resuming operation. The licensee must cease irrigation if runoff is observed outside the designated boundaries of the spray and snowmaking field(s). The licensee must field calibrate equipment to ensure proper and uniform spray applications when operating. Calibration involves collecting and measuring application rate at different locations within the application area. A description of the calibration procedures and a log sheet that have been used for recording calibration results must be included as part of the Operations & Maintenance manual.

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

G. SPRAY IRRIGATION AND SNOWMAKING OPERATIONAL CONSTRAINTS, LOGS, AND REPORTS

1. Suitable vegetative cover must be maintained. Wastewater (as liquid spray irrigation) must not be applied to areas without sufficient vegetation or ground cover as to prevent erosion or surface water runoff outside the designated boundaries of the spray fields. The licensee must have an updated facilities management plan that includes provisions for maintaining the spray irrigation and snowmaking areas in optimum condition for the uptake of nutrients and moisture holding capacity.

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

SPECIAL CONDITIONS

G. SPRAY IRRIGATION AND SNOWMAKING OPERATIONAL CONSTRAINTS, LOGS, AND REPORTS (cont'd)

3. No wastewater must be spray irrigated as liquid following a rainfall accumulation exceeding 1.0 inches within the previous 24-hour period. A rain gauge must be located on site to monitor daily precipitation. The licensee must also manage application rates by taking into consideration the forecast for rain events in the 48-hour period in the future.

4. No wastewater must be spray irrigated as liquid where there is snow present on the surface of the ground or there is any evidence of frost or frozen ground within the upper 10 inches of the soil profile.

5. No traffic or equipment must be allowed in the spray-irrigation and snowmaking field(s) except where installation occurs or where normal operations and maintenance are performed (this must include forest management operations).

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

7. The licensee must maintain the equivalent of a minimum of one ground water level inspection well per spray field to verify that 10 inches of separation from the ground surface to the observed ground water level is present prior to spraying. Depth to ground water must be reported in accordance with the general format of *"Monthly Operations Log"* report form provided as **Attachment A** of this license or other format as approved by the Department.

8. Snow from effluent must only be made when conditions are conducive to snowmaking or ice making as is detailed in the *Ratnik O&M Manual*. When conditions are such that the effluent from the snow guns results in a liquid being sprayed on the site, the operator will cease snowmaking operations until proper conditions exist. Snowmaking will be interrupted to prevent runoff occurring off the site.

H. VEGETATION MANAGEMENT

1. The licensee must remove/trim grasses and other vegetation such as shrubs and trees if necessary so as not to impair the operation of the spray-irrigation or snowmaking systems, ensure uniform distribution of wastewater over the desired application area and to optimize nutrient uptake and removal.

2. The vegetative buffer zones along the perimeter of the site must be maintained to maximize vegetation and forest canopy density in order to minimize off-site drift of spray or snow.

SPECIAL CONDITIONS

I. LAGOON MAINTENANCE

1. The banks of the lagoon must be inspected periodically during the operating season (at least two times per year) and properly maintained at all times. There must be no overflow through or over the banks. Any signs of leaks, destructive animal activity or soil erosion of the banks must be repaired immediately.

2. The banks of the lagoon must be maintained to keep them free of woody vegetation and other vegetation that may be detrimental to the integrity of the bank and/or lagoon liner. The waters within the lagoon must be kept free of all vegetation (i.e. grasses, reeds, cattails, etc.) that hinders the operation of the lagoon.

3. The licensee must maintain the lagoon freeboard at a level no higher than design levels.

4. The treatment and storage lagoons must be dredged as necessary to maintain the proper operating depths in both lagoons that will provide best practicable treatment of the wastewater. All material removed from the lagoon(s) must be properly disposed of in accordance with all applicable State and Federal rules and regulations.

J. INSPECTIONS AND MAINTENANCE

The licensee must periodically inspect all system components to ensure the facility is being operated and maintained in accordance with the design of the system. Maintenance logs must be maintained for each major system component including pumps, pump stations, septic tanks, lagoons, spray apparatus, and pipes. At a minimum, the logs must include the unique identifier [see Special Condition F(6)], the date of maintenance performed, name(s) of person(s) performing the maintenance, and other relevant system observations.

K. GROUNDWATER MONITORING WELLS AND WATER QUALITY MONITORING PLAN DETAILS

1. The licensee must maintain an approved groundwater quality monitoring plan prepared by a professional qualified in water chemistry. Annual reports must be prepared by the licensee and must include historical and current (most recent) monitoring data for each monitoring point, represented in tabular and graphical form.

2. All monitoring wells must be equipped with a cap and lock to limit access and must be maintained in a secured state at all times. The integrity of the monitoring wells must also be verified annually in order to ensure representative samples of groundwater quality.

3. The Department reserves the right to require increasing the depth and or relocating any of the groundwater monitoring wells if the well is perennially dry or is determined not to be representative of groundwater conditions.

SPECIAL CONDITIONS

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

This facility must maintain a current written comprehensive Operation & Maintenance (O & M) Plan. The plan must provide a systematic approach by which the licensee must 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 must 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 must be kept on-site at all times and made available to the Department personnel upon request.

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

M. PUBLIC ACCESS TO LAND APPLICATION SITES AND SIGNAGE

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

N. DISPOSAL OF SEPTAGE IN WASTEWATER TREATMENT FACILITY

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

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SPECIAL CONDITIONS

O. MONITORING AND REPORTING

Electronic Reporting

NPDES Electronic Reporting, 40 C.F.R. 127, requires MEPDES permit holders to submit monitoring results obtained during the previous month on an electronic discharge monitoring report to the regulatory agency utilizing the USEPA electronic system.

Electronic Discharge Monitoring Reports (DMRs) submitted using the USEPA NetDMR system, must be:

1. Submitted by a facility authorized signatory; and
2. Submitted no later than **midnight on the 15th day of the month** following the completed reporting period.

Documentation submitted in support of the electronic DMR may be attached to the electronic DMR. Toxics reporting must be done using the DEP toxsheet reporting form. An electronic copy of the Toxsheet reporting document must be submitted to your Department compliance inspector as an attachment to an email. In addition, a hardcopy form of this sheet must be signed and submitted to your compliance inspector, or a copy attached to your NetDMR submittal will suffice. Documentation submitted electronically to the Department in support of the electronic DMR must be submitted no later than midnight on the 15th day of the month following the completed reporting period.

Non-electronic Reporting

If you have received a waiver from the Department concerning the USEPA electronic reporting rule, or are permitted to submit hardcopy DMR's to the Department, then your monitoring results obtained during the previous month must be summarized for each month and reported on separate Discharge Monitoring Report (DMR) forms provided by the Department and **postmarked on or before the thirteenth (13th) day of the month or hand-delivered to a Department Regional Office such that the DMR's are received by the Department on or before the fifteenth (15th) day of the month** following the completed reporting period.

Toxsheet reporting forms must be submitted electronically as an attachment to an email sent to your Department compliance inspector. In addition, a signed hardcopy of your toxsheet must also be submitted. A signed copy of the DMR and all other reports required herein must be submitted to the Department assigned compliance inspector (unless otherwise specified) following address:

Department of Environmental Protection
Northern Maine Regional Office
Bureau of Water Quality
Division of Water Quality Management
1235 Central Drive
Presque Isle, Maine 04769

SPECIAL CONDITIONS

P. REOPENING OF LICENSE FOR MODIFICATION

Upon evaluation of the tests results in the Special Conditions of this licensing action, new site specific information, or any other pertinent test results or information obtained during the term of this license, the Department may, at any time and with notice to the licensee, modify this license to: (1) include effluent limits necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded: (2) require additional monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

Q. SEVERABILITY

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

CONTENTS

A. GENERAL PROVISIONS

1. **General compliance**. All discharges shall be consistent with the terms and conditions of this permit; any changes in production capacity or process modifications which result in changes in the quantity or the characteristics of the discharge must be authorized by an additional license or by modifications of this permit; it shall be a violation of the terms and conditions of this permit to discharge any pollutant not identified and authorized herein or to discharge in excess of the rates or quantities authorized herein or to violate any other conditions of this permit.

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

(a) They are not

(i) Designated as toxic or hazardous under the provisions of Sections 307 and 311, respectively, of the Federal Water Pollution Control Act; Title 38, Section 420, Maine Revised Statutes; or other applicable State Law; or
(ii) Known to be hazardous or toxic by the licensee.

(b) The discharge of such materials will not violate applicable water quality standards.

3. Duty to comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of State law and the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

(a) The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act, and 38 MRSA, §420 or Chapter 530.5 for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
(b) Any person who violates any provision of the laws administered by the Department, including without limitation, a violation of the terms of any order, rule license, permit, approval or decision of the Board or Commissioner is subject to the penalties set forth in 38 MRSA, §349.

4. Duty to provide information. The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

5. Permit actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

6. Reopener clause. The Department reserves the right to make appropriate revisions to this permit in order to establish any appropriate effluent limitations, schedule of compliance or other provisions which may be authorized under 38 MRSA, §414-A(5).

7. Oil and hazardous substances. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under section 311 of the Federal Clean Water Act; section 106 of the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980; or 38 MRSA §§ 1301, et. seq.

8. Property rights. This permit does not convey any property rights of any sort, or any exclusive privilege.

9. Confidentiality of records. 38 MRSA §414(6) reads as follows. "Any records, reports or information obtained under this subchapter is available to the public, except that upon a showing satisfactory to the department by any person that any records, reports or information, or particular part or any record, report or information, other than the names and addresses of applicants, license applications, licenses, and effluent data, to which the department has access under this subchapter would, if made public, divulge methods or processes that are entitled to protection as trade secrets, these records, reports or information must be confidential and not available for public inspection or examination. Any records, reports or information may be disclosed to employees or authorized representatives of the State or the United States concerned with carrying out this subchapter or any applicable federal law, and to any party to a hearing held under this section on terms the commissioner may prescribe in order to protect these confidential records, reports and information, as long as this disclosure is material and relevant to any issue under consideration by the department."

10. Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

11. Other laws. The issuance of this permit does not authorize any injury to persons or property or invasion of other property rights, nor does it relieve the permittee if its obligation to comply with other applicable Federal, State or local laws and regulations.

12. Inspection and entry. The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the EPA Administrator), upon presentation of credentials and other documents as may be required by law, to:

(a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
(c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
(d) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

B. OPERATION AND MAINTENACE OF FACILITIES

1. General facility requirements.

(a) The permittee shall collect all waste flows designated by the Department as requiring treatment and discharge them into an approved waste treatment facility in such a manner as to

maximize removal of pollutants unless authorization to the contrary is obtained from the Department.

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

(c) All necessary waste treatment facilities will be installed and operational prior to the discharge of any wastewaters.

(d) Final plans and specifications must be submitted to the Department for review prior to the construction or modification of any treatment facilities.

(e) The permittee shall install flow measuring facilities of a design approved by the Department.

(f) The permittee must provide an outfall of a design approved by the Department which is placed in the receiving waters in such a manner that the maximum mixing and dispersion of the wastewaters will be achieved as rapidly as possible.

2. Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

3. Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4. Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

5. Bypasses.

(a) Definitions.

(i) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

(ii) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this section.

(c) Notice.

(i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph D(1)(f), below. (24-hour notice).

(d) Prohibition of bypass.

(i) Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
(B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
(C) The permittee submitted notices as required under paragraph (c) of this section.

(ii) The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in paragraph (d)(i) of this section.

6. Upsets.

(a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(i) An upset occurred and that the permittee can identify the cause(s) of the upset;
(ii) The permitted facility was at the time being properly operated; and
(iii) The permittee submitted notice of the upset as required in paragraph D(1)(f) , below. (24 hour notice).
(iv) The permittee complied with any remedial measures required under paragraph B(4).

(d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

C. MONITORING AND RECORDS

1. General Requirements. This permit shall be subject to such monitoring requirements as may be reasonably required by the Department including the installation, use and maintenance of monitoring equipment or methods (including, where appropriate, biological monitoring methods). The permittee shall provide the Department with periodic reports on the proper Department reporting form of monitoring results obtained pursuant to the monitoring requirements contained herein.

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

3. Monitoring and records.

(a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(b) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

(c) Records of monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;
(ii) The individual(s) who performed the sampling or measurements;
(iii) The date(s) analyses were performed;
(iv) The individual(s) who performed the analyses;
(v) The analytical techniques or methods used; and
(vi) The results of such analyses.

(d) Monitoring results must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in the permit.

(e) State law provides that any person who tampers with or renders inaccurate any monitoring devices or method required by any provision of law, or any order, rule license, permit approval or decision is subject to the penalties set forth in 38 MRSA, §349.

D. REPORTING REQUIREMENTS

1. Reporting requirements.

(a) Planned changes. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

(i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

(ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Section D(4).

(iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;

(b) Anticipated noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) Transfers. This permit is not transferable to any person except upon application to and approval of the Department pursuant to 38 MRSA, § 344 and Chapters 2 and 522.

(d) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Department for reporting results of monitoring of sludge use or disposal practices.

(ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Department.

(iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Department in the permit.

(e) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(f) Twenty-four hour reporting.

(i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance

has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(ii) The following shall be included as information which must be reported within 24 hours under this paragraph.

(A) Any unanticipated bypass which exceeds any effluent limitation in the permit.
(B) Any upset which exceeds any effluent limitation in the permit.
(C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours.

(iii) The Department may waive the written report on a case-by-case basis for reports under paragraph (f)(ii) of this section if the oral report has been received within 24 hours.

(g) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (d), (e), and (f) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (f) of this section.

(h) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

2. Signatory requirement. All applications, reports, or information submitted to the Department shall be signed and certified as required by Chapter 521, Section 5 of the Department's rules. State law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan or other document filed or required to be maintained by any order, rule, permit, approval or decision of the Board or Commissioner is subject to the penalties set forth in 38 MRSA, §349.

3. Availability of reports. Except for data determined to be confidential under A(9), above, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by State law, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal sanctions as provided by law.

4. Existing manufacturing, commercial, mining, and silvicultural dischargers. In addition to the reporting requirements under this Section, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Department as soon as they know or have reason to believe:

(a) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(i) One hundred micrograms per liter (100 ug/l);
(ii) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
(iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
(iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

(b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following ``notification levels'':

(i) Five hundred micrograms per liter (500 ug/l);
(ii) One milligram per liter (1 mg/l) for antimony;
(iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
(iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

5. Publicly owned treatment works.

(a) All POTWs must provide adequate notice to the Department of the following:

(i) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA or Chapter 528 if it were directly discharging those pollutants.
(ii) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
(iii) For purposes of this paragraph, adequate notice shall include information on (A) the quality and quantity of effluent introduced into the POTW, and (B) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(b) When the effluent discharged by a POTW for a period of three consecutive months exceeds 80 percent of the permitted flow, the permittee shall submit to the Department a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.

E. OTHER REQUIREMENTS

1. Emergency action - power failure. Within thirty days after the effective date of this permit, the permittee shall notify the Department of facilities and plans to be used in the event the primary source of power to its wastewater pumping and treatment facilities fails as follows.

(a) For municipal sources. During power failure, all wastewaters which are normally treated shall receive a minimum of primary treatment and disinfection. Unless otherwise approved, alternate power supplies shall be provided for pumping stations and treatment facilities. Alternate power supplies shall be on-site generating units or an outside power source which is separate and independent from sources used for normal operation of the wastewater facilities.

(b) For industrial and commercial sources. The permittee shall either maintain an alternative power source sufficient to operate the wastewater pumping and treatment facilities or halt, reduce or otherwise control production and or all discharges upon reduction or loss of power to the wastewater pumping or treatment facilities.

2. Spill prevention. (applicable only to industrial sources) Within six months of the effective date of this permit, the permittee shall submit to the Department for review and approval, with or without conditions, a spill prevention plan. The plan shall delineate methods and measures to be taken to prevent and or contain any spills of pulp, chemicals, oils or other contaminates and shall specify means of disposal and or treatment to be used.

3. **Removed substances.** Solids, sludges trash rack cleanings, filter backwash, or other pollutants removed from or resulting from the treatment or control of waste waters shall be disposed of in a manner approved by the Department.

4. **Connection to municipal sewer.** (applicable only to industrial and commercial sources) All wastewaters designated by the Department as treatable in a municipal treatment system will be cosigned to that system when it is available. This permit will expire 90 days after the municipal treatment facility becomes available, unless this time is extended by the Department in writing.

F. DEFINITIONS. For the purposes of this permit, the following definitions shall apply. Other definitions applicable to this permit may be found in Chapters 520 through 529 of the Department's rules

Average means the arithmetic mean of values taken at the frequency required for each parameter over the specified period. For bacteria, the average shall be the geometric mean.

Average monthly discharge limitation means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. Except, however, bacteriological tests may be calculated as a geometric mean.

Average weekly discharge limitation means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best management practices ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Composite sample means a sample consisting of a minimum of eight grab samples collected at equal intervals during a 24 hour period (or a lesser period as specified in the section on monitoring and reporting) and combined proportional to the flow over that same time period.

Continuous discharge means a discharge which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

Daily discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.

Discharge Monitoring Report ("DMR") means the EPA uniform national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by permittees. DMRs must be used by approved States as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the State Agency name, address, logo, and other similar information, as appropriate, in place of EPA's.

Flow weighted composite sample means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge.

Grab sample means an individual sample collected in a period of less than 15 minutes.

Interference means a Discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

(1) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
(2) Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Maximum daily discharge limitation means the highest allowable daily discharge.

New source means any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

(a) After promulgation of standards of performance under section 306 of CWA which are applicable to such source, or
(b) After proposal of standards of performance in accordance with section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal.

Pass through means a discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

Permit means an authorization, license, or equivalent control document issued by EPA or an approved State to implement the requirements of 40 CFR parts 122, 123 and 124. Permit includes an NPDES general permit (Chapter 529). Permit does not include any permit which has not yet been the subject of final agency action, such as a draft permit or a proposed permit.

Person means an individual, firm, corporation, municipality, quasi-municipal corporation, state agency, federal agency or other legal entity.

Point source means any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft, from which pollutants are or may be discharged.

Pollutant means dredged spoil, solid waste, junk, incinerator residue, sewage, refuse, effluent, garbage, sewage sludge, munitions, chemicals, biological or radiological materials, oil, petroleum products or byproducts, heat, wrecked or discarded equipment, rock, sand, dirt and industrial, municipal, domestic, commercial or agricultural wastes of any kind.

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Publicly owned treatment works ("POTW") means any facility for the treatment of pollutants owned by the State or any political subdivision thereof, any municipality, district, quasi-municipal corporation or other public entity.

Septage means, for the purposes of this permit, any waste, refuse, effluent sludge or other material removed from a septic tank, cesspool, vault privy or similar source which concentrates wastes or to which chemicals have been added. Septage does not include wastes from a holding tank.

Time weighted composite means a composite sample consisting of a mixture of equal volume aliquots collected over a constant time interval.

Toxic pollutant includes any pollutant listed as toxic under section 307(a)(1) or, in the case of sludge use or disposal practices, any pollutant identified in regulations implementing section 405(d) of the CWA. Toxic pollutant also includes those substances or combination of substances, including disease causing agents, which after discharge or upon exposure, ingestion, inhalation or assimilation into any organism, including humans either directly through the environment or indirectly through ingestion through food chains, will, on the basis of information available to the board either alone or in combination with other substances already in the receiving waters or the discharge, cause death, disease, abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations in such organism or their offspring.

Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Whole effluent toxicity means the aggregate toxic effect of an effluent measured directly by a toxicity test.

ATTACHMENT A

Monthly Operations Log

Mapleton (WDL #W008147-6B-D-R (Month/Year) (_____)

Spray Field #_____ Weekly Application Rate: _____ gallons/week

A	B	C	D	E	F	G
Date	Precipitation Previous 24 hours (inches)	Air Temp (°F)	Weather	Wind-Direction/ Speed (mph)	Depth to GW in Observation well (inches)	Total Gallons Pumped (gallons)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
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ATTACHMENT B

Spray Application Report by Week

Mapleton Sewer District (WDL #W008147-6B-D-R) **(Month/Year) _____**

Field Name/#	Effective Spray Area (Acres, when all used)	Weekly Limit (Gallons)	Spray Application Rates (Gallons)					Number of Exceptions to Weekly Limit	Monthly Total
			Week 1	Week 2	Week 3	Week 4	Week 5		
SF #2	4.3	645,000							
SF #3	5.1	663,000							
SM #1	9.0	488,700							

Signature of Responsible Official: _____Date _____

MAINE WASTE DISCHARGE LICENSE

Proposed Draft FACT SHEET

DATE: **OCTOBER 30, 2018**

LICENSE NUMBER: **#MEU508147**

WASTE DISCHARGE LICENSE: **#W008147-6B-D-R**

NAME AND ADDRESS OF APPLICANT:

MAPLETON SEWER DISTRICT
P.O. BOX 53
MAPLETON, MAINE 04757

COUNTY: **AROOSTOOK**

NAME AND ADDRESS WHERE DISCHARGE(S) OCCUR(S):

MAPLETON SEWER DISTRICT
1461 MAIN STREET
MAPLETON, MAINE 04757

RECEIVING WATER CLASSIFICATION: **GROUND WATER/CLASS GW-A**

COGNIZANT OFFICIAL CONTACT INFORMATION:

MR. GILLES ST. PIERRE
SUPERINTENDENT
(207) 551-8523
EMAIL: grstp2016@gmail.com

1. APPLICATION SUMMARY

Application: The Mapleton Sewer District (MSD) has submitted a timely and complete application to the Department of Environmental Protection (Department) for renewal of Waste Discharge License (WDL) #W008174-6B-C-R/Permit Compliance System (PCS) tracking #MEU508147 which was issued on October 4, 2013 for a five-year term. The 10/4/13 WDL authorized the operation of a surface wastewater disposal system for the treatment and disposal of up to 40 million gallons per year of sanitary wastewater to ground water via discharge at two spray irrigation and one snowmaking disposal field(s) in Mapleton, Maine. This capacity includes 3 million gallons for annual precipitation. The treatment system was designed for a sanitary wastewater influent flow of 90,000 gallons per day (GPD) (0.09 MGD).

2. LICENSE SUMMARY

a. Terms and Conditions: This licensing action is carrying forward all the terms and conditions of the previous license.

b. History: The most current relevant regulatory actions include:

January 6, 1991 - The MSD filed an application with the U.S. Environmental Protection Agency (USEPA) to renew National Pollutant Discharge Elimination System (NPDES) permit #ME0101257, which was issued on June 6, 1986 for the MSD's sanitary wastewater discharge to the North Branch of Presque Isle Stream. The USEPA deemed the application complete for processing but did not act to renew the NPDES permit, which was later superseded by State action.

1995 – The Department completed a waste load allocation study that determined that the North Branch of Presque Isle Stream could not meet its Class B stream classification standards due in part to the discharge of the MSD wastewater treatment facility that went on line in 1971. The Department and MSD subsequently worked together to find an alternative to a year round discharge to the stream.

May 12, 1999 - The Department issued WDL #W-000462-5L-B-R to the MSD for the discharge of 0.08 MGD (80,000 GPD) of sanitary wastewater to the North Branch of Presque Isle Stream. The WDL was a renewal of a previous WDL (#W-00462-45-A-N), which was issued on March 20, 1986 for a five-year term. WDL #W-000462-5L-B-R established a 30-month schedule of compliance for removal of the discharge to the North Branch of Presque Isle Stream and had an expiration date of December 1, 2001.

January 12, 2001 – The Department received authorization from the United States Environmental Protection Agency (USEPA) to administer the National Pollution Discharge Elimination System (NPDES) permitting program in Maine, excluding areas of special interest to Maine Indian Tribes. On March 26, 2011, the USEPA authorized the Department to administer the MEPDES program in Indian territories of the Penobscot Nation and Passamaquoddy Tribe.

May 2002 - Construction of MSD's new spray irrigation/snowmaking facility began, with expectations for the new facility to be on-line in the summer of 2003.

November 7, 2002 – The Department issued WDL #W-000462-5L-C-R / MEPDES #ME0101257 to the MSD for the discharge of 0.07 MGD (70,000 GPD) of sanitary wastewater from its activated sludge treatment facility to the North Branch of Presque Isle Stream.

January 27, 2003 – The Department issued WDL #W-008147-5L-A-N to the MSD for the operation of a surface wastewater disposal system for the treatment and disposal of sanitary wastewater to two spray irrigation and one snowmaking disposal fields. The WDL was issued for a five-year period.

May 27, 2003 – The Department acknowledged receipt of MSD's groundwater monitoring plan, as required by WDL #W-008147-5L-A-N, Special Condition N.

2. LICENSE SUMMARY (cont'd)

July 17, 2003 – MSD's surface wastewater treatment and disposal system, licensed pursuant to WDL #W-008147-5L-A-N, became operational.

September 10, 2003 - The Department administratively modified WDL#W-008147-5L-A-N to correct typographical errors in the acreages reported for the two spray irrigation fields.

January 28, 2004 – The Department received and approved MSD's facility Operations and Maintenance Plan. The deadline for submittal of the O&M plan was extended through three Department Administrative Modifications of WDL#W-008147-5L-A-N, on July 2, August 27, and October 31, 2003.

July 12, 2004 - The Department administratively modified WDL #W-008147-5L-A-N to revise requirements for professional review of groundwater monitoring results from annually to the final year of the WDL and to eliminate requirements for spray site soil monitoring. The Department notes that the Special Condition section references in the Administrative Modification are wrong.

February 18, 2005 – The Department administratively modified WDL #W-008147-5L-A-N to eliminate all lagoon underdrain monitoring requirements with the exception of nitrate nitrogen, and to reduce the required sampling frequency to once per year.

January 30, 2007 – The Department approved MSD's workplan for evaluation of increased land application rates to be conducted during the 2007 spray irrigation season.

December 27, 2007 – The MSD submitted a timely application for renewal of its surface wastewater disposal system WDL. The renewal application packet included Olver Associates' evaluation of the 2007 spray irrigation experiment noted above.

July 3, 2008 – The Department issued #W-008147-5L-B-R/MEU508147 which authorized the licensee to discharge 40 million gallons of treated wastewater, annually, to land via spray irrigation.

June 7, 2013 – MSD submitted a timely and complete application to the Department for renewal of the 7/3/08 WDL.

October 4, 2013 – The Department issued #W-008147-6B-C-R/MEU508147 which authorized the licensee to discharge 40 million gallons of treated wastewater, annually, to land via spray irrigation.

August 31, 2018 – MSD submitted a timely and complete application to the Department for renewal of the 10/4/13 WDL.

2. LICENSE SUMMARY (cont'd)

c. Source Description: The Mapleton Sewer District (MSD) was created by the State Legislature in the early 1970's and encompasses approximately 0.3 square miles. The MSD receives an average of approximately 64,000 GPD of sanitary wastewater from approximately 700 residential and commercial customers. There are no industrial contributions to the system. The MSD collection system consists of approximately 12,000 linear feet of gravity sewer, which directs wastewater to the village pump station on Pulcifer Road, located at the former activated sludge treatment facility. The pump station has grinding and flow measurement equipment and a 16,000 gallon capacity wet well with a self-priming pump that routes wastewater flows to the MSD treatment facility through an additional 5,800 linear feet of 8-inch diameter force main. The design capacity, including additional loading induced by inflow and infiltration into the system, is 90,000 GPD. The MSD does not, and is not approved to, accept septage from local septage haulers. A map showing the location of the treatment facility is included as Fact Sheet **Attachment A**.

d. Wastewater Treatment: The MSD wastewater treatment facility is designed to treat 20-year projected average daily flows of up to 90,000 GPD. The wastewater treatment and disposal system consists of a facultative biological treatment lagoon, a treated effluent storage lagoon, and a combined summer/winter land application system for the disposal of treated effluent, located on a parcel of land to the northeast of the former activated sludge treatment facility.

The biological treatment process consists of one facultative treatment lagoon and one large storage lagoon. Wastewater entering the MSD facility first enters the treatment lagoon for secondary biological treatment of wastewater. The treatment lagoon has a surface area of approximately 3.5 acres and a working volume of 5.0 million gallons. The treatment lagoon is 6 feet deep, is designed for 3 feet of freeboard, and is constructed with an earthen liner consisting of 24 inches of thick glacial till. At the projected average daily flow rate of 90,000 GPD, the treatment lagoon system provides for an average detention time of 60 days. Treated effluent is then discharged to the approximately 4.5 acre, 14.5-million gallon storage lagoon. The storage lagoon is 10 feet deep, is designed for 4-feet of freeboard, and is lined with a 60-mil high density polyethylene (HDPE) liner over a sand blanket of 12 inches. The storage lagoon provides for a maximum detention time of 120 days until the treated wastewater can either be land applied through spray irrigation from April through November or through "snowmaking" and storage from November through March. Ground water beneath both lagoons is controlled via an underdrain system that daylights approximately 1,000 feet to the southeast of the snow storage area via a 6-inch diameter PVC pipe. The lagoon underdrain is regulated as Outfall #UD-1 and is monitored for evidence of liner leakage.

1. Spray Irrigation - Between April 1st and November 30th of each year, wastewater from the storage lagoon is conveyed to 2 spray fields, spray field SF#2 (4.3-acres, "West field") and SF#3 (5.1-acres, "East field"). Each spray field contains 18 spray heads and each spray head distributes water in a circular pattern measuring 150 feet in diameter or 17,660 square feet. See **Attachment B** of this Fact Sheet for a spray irrigation distribution plan.

   Each of the two spray fields is equally divided into two sections for a total of four parcels. The system has been designed such that the operator has the flexibility to rotate the four parcels or two fields in a series pattern. The system also provides sufficient valving to isolate each of the two spray fields, isolate each of the four parcels or isolate individual clusters of spray headers with each spray field.

2. LICENSE SUMMARY (cont'd)

Each spray field is an open flat field. The spray fields have been designed to accept up to a maximum of 16.0 million gallons per year over a period of 20 weeks each year.

2. Snowmaking: Between November 1st and March 30th of each year, wastewater from the storage lagoon is converted to snow via compressed air and stored in piles on SM#1, a 12.2-acre parcel of land known as the Doyen Site and located on the eastern portion of the MSD site, immediately south of SF#3. Ten snow towers are used to distribute the snow over the parcel, but the system has been designed such that the operator of the system can operate each tower independently. Since the last license renewal, MSD upgraded the snow system by installing new snow towers, new heater strips, new valves, and new T-wrenches for each snow tower.

   The snow storage area has been designed to accept up to a maximum of 24 million gallons per snowmaking season (November – March). The snow storage area is an open, flat field area. Water from the snow piles is slowly released to the environment via evaporation (assume 15%) during the snowmaking process, sublimation (assume 20%) of the snow piles over time and infiltration into the ground as the snow piles melt in the spring and early summer. As with other sites licensed by the Department, the site has been modeled assuming melting would occur during the months of March (5%), April (15%), May (30%), June (40%) and July (10%). On average, the application rate of 24 million gallons of snow melting water over a period of 22 weeks on 9.0 acres is 4.4 inches/week or 1.1 million gallons per week.

   Based on limited summer spray irrigation during 2006 and 2007 approved by the Department, Olver Associates Inc. has determined that the Doyen Site can also dispose of 16 million gallons per year via spray irrigation. The previous license authorized, and this license is carrying forward a combination of snowmaking and spray irrigation for the Doyen Site (SM#1) not to exceed the approved 24 million gallons per year. From April 1 through October 31 each year, the MSD is allowed to spray irrigate the remainder of the 24 million gallon annual limit left over after the end of snowmaking each year as spray irrigation, not to exceed the levels provided in Special Condition A(3) of this license and pursuant to spray irrigation requirements contained in this licensing action.

   A high intensity Class B soil survey of the site indicates the soils in spray fields and snow storage consist of topsoil, brown till, alluvium, lake silts, a second brown till, gray till and bedrock with 12 inches to the seasonal high water table. These soils are generally well drained soils with permeability rates ranging from $3x10^{-7}$ to $1x10^{-2}$ cm/sec.

3. CONDITIONS OF LICENSE

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

4. RECEIVING WATER QUALITY STANDARDS

Classification of Ground Waters, 38 M.R.S., § 470 states "All ground water must be classified as not less than Class GW-A, except as otherwise provided in this section." *Standards of classification of ground* water, 38 M.R.S. § 465-C(1) contains the standards for the classification of ground waters. "Class GW-A must be the highest classification and must be of such quality that it can be used for public drinking water supplies. These waters must be free of radioactive matter or any matter that imparts color, turbidity, taste or odor which would impair usages of these waters, other than that occurring from natural phenomena."

5. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

STORAGE LAGOON OUTFALL (OUTFALL #001A)

a. Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS): Previous licensing action established, and this licensing action is carrying forward, a daily maximum best practicable treatment (BPT) standard of 100 mg/L for BOD_5 and TSS along with a 1/Month monitoring frequency.

The licensee had three TSS excursions above the 100 mg/L limit. These incidents were due to algal blooms in the lagoon.

The Department reviewed 42 DMRs that were submitted for the period November 2013 – September 2018. A review of data indicates the following:

BOD_5 concentration

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	100	4 - 46	22

TSS concentration

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	100	3 – 212	28

b. Nitrate-nitrogen: Nitrate-nitrogen compounds are by-products of the biological breakdown of ammonia and are inherent in domestic like sanitary wastewater. Because nitrate-nitrogen is weakly absorbed by soil, it functions as a reliable indicator of contamination from waste-disposal sites. Elevated levels of nitrate-nitrogen in the drinking water supply are of human health concern. The limit of 10 mg/L established in the previous license is a National Primary Drinking Water standard and is being carried forward in this licensing action.

The Department reviewed 42 DMRs that were submitted for the period November 2013 – September 2018. A review of data indicates the following:

Nitrate-nitrogen concentration

Value	Limit (ml/L)	Range (ml/L)	Average (ml/L)
Daily Maximum	10.0	0.1 – 4.8	0.3

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

c. pH: Previous licensing action established, and this license is carrying forward, a technology-based pH limit of 6.0 – 9.0 standard units (SU), which is based on 06-096 CMR 525(3)(III), and a minimum monitoring frequency requirement of once per month.

The Department reviewed 42 DMRs that were submitted for the period November 2013 – September 2018. A review of data indicates the following:

pH

Value	Limit (SU)	Minimum (SU)	Maximum (SU)
Range	6.0 – 9.0	6.7	9.1

d. Freeboard: Freeboard is the vertical distance from the surface water level in the lagoon to a point that is even with the top of the lagoon dike wall. This licensing action carries forward the reporting requirement to measure and report freeboard in the storage lagoon 1/Week as a demonstration of best management practices.

Note: Due to the slope of the lagoon walls, freeboard measurements are based off of the conversion factor of 5'5" measured = approximately 2' of elevation.

The Department reviewed 31 DMRs that were submitted for the period November 2013 – September 2018. A review of data indicates the following:

Freeboard

Value	Minimum (feet)	Maximum (feet)	Mean (feet)
Report Daily Minimum	4.30	40.90	25

e. Metals (Total): Total metals are required to be analyzed once per 5 years (1/5 Years) to determine the character of the effluent from the storage lagoon.

A summary of the results from grab samples taken on 5/31/2017 indicates the following:

Parameter	Daily Maximum Limit (µg/L)	Result (µg/L)
Arsenic	Report only	<0.002
Cadmium		0.4
Chromium		<0.002
Copper		6
Lead		<0.001
Nickel		<0.002
Zinc		27

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

SPRAY IRRIGATION FIELDS (SF#2-WEST AND SF#3-EAST)

f. Application Rate and Flow: The previous licensing action established, and this license is carrying forward weekly maximum wastewater application rates for SF#2 and SF#3 calculated using the following formula:

SF#2 (West field) 150,000 gallons/acre/week x 4.3 acres = 645,000 gallons/week
SF#3 (East field) 130,000 gallons/acre/week x 5.1 acres = 663,000 gallons/week

The Department reviewed 22 DMRs for spray irrigation fields SF#2 and SF#3 that were submitted for the period November 2013 – September 2018. A review of data indicates the following:

Weekly Application Rate

Field ID	Weekly Maximum (gallons/acre)	Minimum (gallons/acre)	Maximum (gallons/acre)	Mean (gallons/acre)
SF#2	645,000	111,436	641,085	539,672
SF#3	663,000	233,056	659,572	579,338

Total Monthly Flow

Field ID	Monthly Total Limit (gallons)	Minimum (gallons)	Maximum (gallons)	Mean (gallons)
SF#2	Report	111,436	3,030,631	1,858,060
SF#3	Report	270,303	3,194,091	2,058,056

SNOWMAKING FIELD (#SM1A)

g. Application Rate and Flow: The previous licensing action established a weekly maximum application rate consistent with the other spray irrigation fields and as calculated using the following formula:

#SM1A (Snowmaking field) 54,300 gallons/acre/week x 9 acres = 488,700 gallons/week

The Department reviewed 2 DMRs for spray irrigation discharge at snowmaking field #SM1A and 9 DMRs for snow-making discharge at #SM1A that were submitted for the period November 2013 – September 2018. A review of data indicates the following:

Weekly Application Rate – Spray Irrigation

Field ID	Weekly Maximum (gallons)	Minimum (gallons)	Maximum (gallons)	Mean (gallons)
#SM1A	488,700	286,267	356,204	321,236

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

Total Monthly Flow

Field ID	Monthly Total Limit (gallons)	Minimum (gallons)	Maximum (gallons)	Mean (gallons)
#SM1A	Report	286,267	2,779,087	1,526,669

Annual Total Gallons Combined Snow and Spray Irrigation

Field ID	Annual Total Limit	Year	Total (gallons)
#SM1A	24 million gallons	2014	3,004,755
		2015	5,490,197
		2016	4,085,037
		2017	3,008,493

GROUND WATER MONITORING WELLS

h. Ground water monitoring wells: MW-1, MW-, 2, MW-3, MW-3A, MW-4, MW-5, and MW-6 (Outfalls # MW1A, MW2A, MW2B, MW3A, MW3B, MW4A, MW5A, and MW6A) are monitored for the parameters listed in Special Condition A.4 in the license. These parameters, their monitoring frequency, and their applicable limits are being carried forward in this license. The Department reviewed DMRs for the period of November 2013 – September 2018. Metals (Total) analysis results were non-detect for each parameter (Arsenic <5 µg/L, Cadmium <0.4 µg/L, Chromium <5 µg/L, Copper <3 µg/L, Lead <3 µg/L, Nickel <3 µg/L, Zinc < 10 µg/L). A review of the data indicates:

Depth to Water Level Below Land Surface

Monitoring Well ID	Limit	Minimum (feet)	Maximum (feet)	Mean (feet)
MW1A	Report Daily Maximum	5.05	5.43	5.2
MW2A		5.52	6.07	5.8
MW2B		5.99	7.00	6.5
MW3A		5.47	7.56	6.7
MW3B		10.90	12.99	11.9
MW4A		6.50	8.43	7.4
MW5A		6.85	8.87	8.0
MW6A		4.93	6.51	5.8

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

Nitrate-Nitrogen

Monitoring Well ID	Limit	Minimum (mg/L)	Maximum (mg/L)	Mean (mg/L)
MW1A	10 mg/L	<0.1	1.30	0.5
MW2A		<0.1	<0.1	<0.1
MW2B		<0.1	<0.1	<0.1
MW3A		0.19	0.34	0.3
MW3B		<0.1	<0.1	<0.1
MW4A		<0.1	0.1	<0.1
MW5A		<0.1	<0.1	<0.1
MW6A		3.00	5.50	4.0

Specific Conductance

Monitoring Well ID	Limit	Minimum (umhos/cm)	Maximum (umhos/cm)	Mean (umhos/cm)
MW1A	Report Daily Maximum	539	791	663
MW2A		428	624	533
MW2B		387	588	504
MW3A		201	317	253
MW3B		225	365	309
MW4A		3.84	523	342
MW5A		341	623	483
MW6A		394	735	569

Temperature

Monitoring Well ID	Limit	Minimum (°C)	Maximum (°C)	Mean (°C)
MW1A	Report Daily Maximum	4.20	12.50	8.0
MW2A		5.00	13.50	9.0
MW2B		5.60	11.30	9.0
MW3A		5.60	12.90	9.7
MW3B		6.90	9.90	8.6
MW4A		7.70	10.40	8.9
MW5A		5.20	11.10	8.1
MW6A		5.20	11.90	8.7

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

pH

Monitoring Well ID	Limit	Minimum (S.U.)	Maximum (S.U.)	Mean (S.U.)
MW1A	Report Daily Maximum	6.76	7.43	7.1
MW2A		6.37	7.44	7.0
MW2B		6.54	7.27	7.0
MW3A		6.82	7.64	7.2
MW3B		6.98	7.75	7.3
MW4A		6.14	7.27	6.7
MW5A		6.24	7.25	6.7
MW6A		7.00	7.59	7.3

TSS

Monitoring Well ID	Limit	Minimum (mg/L)	Maximum (mg/L)	Mean (mg/L)
MW1A	Report Daily Maximum	5.0	23.0	9
MW2A		<5	10	<6
MW2B		<5	14	<7
MW3A		6.5	87	34
MW3B		<5	7.6	5
MW4A		<5	<5	<5
MW5A		<5	21	8
MW6A		<5	<5	<5

LAGOON UNDERDRAIN SYSTEM

i. Nitrate-Nitrogen: This licensing action carries forward the underdrain monitoring frequency as well as the daily maximum reporting condition. The Department reviewed 5 DMRs for the period November 2013 – September 2018. A review of data indicates that the results ranged from <0.2 mg/L to 0.13 mg/L.

6. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

As licensed, the Department has determined the existing water uses will be maintained and protected and the discharge will not cause or contribute to the failure of the water body to meet standards for Class GW-A classification.

7. PUBLIC COMMENTS

Public notice of this application was made in the *Star Herald* newspaper on August 22, 2018. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft licenses must have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to *Application Processing Procedures for Waste Discharge Licenses*, 06-096 CMR 522 (effective January 12, 2001).

8. RESPONSE TO COMMENTS

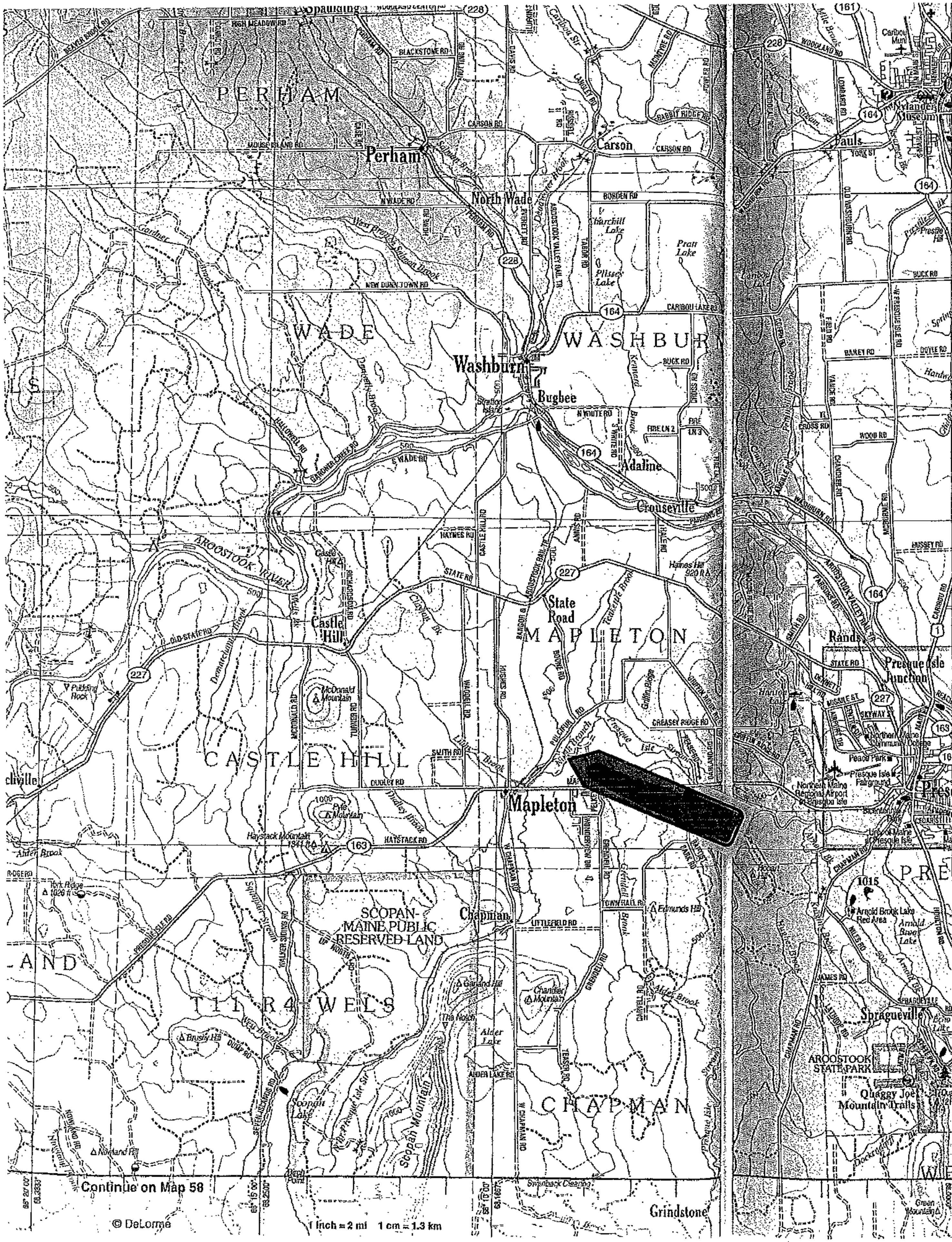
This section left blank until the end of the public comment period.

9. DEPARTMENT CONTACTS

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

Cindy L. Dionne
Division of Water Quality Management
Bureau Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 287-7823
e-mail: cindy.l.dionne@maine.gov

ATTACHMENT A


PERHAM
Perham
North Wade
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WASHBURN
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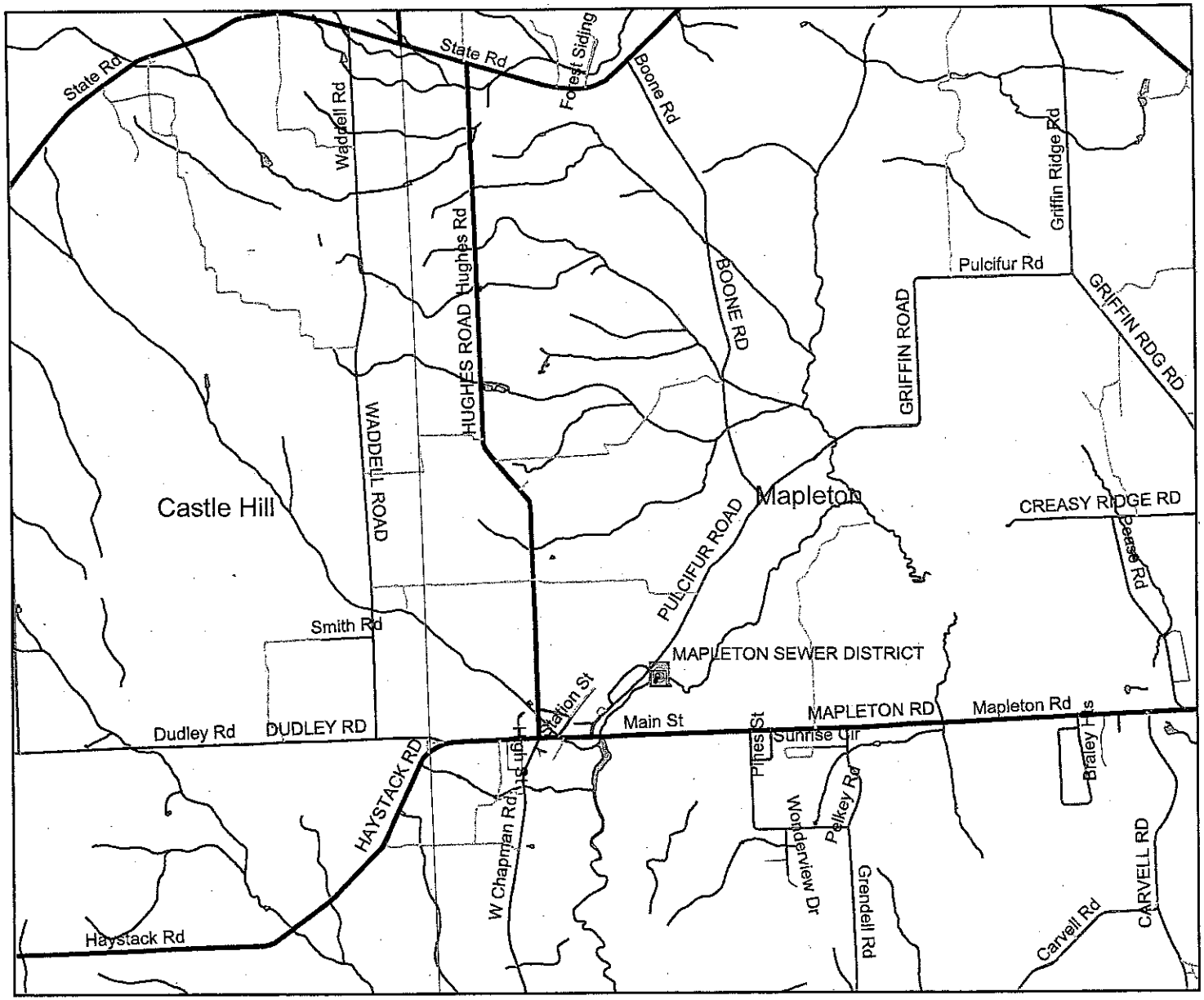
Bugbee
Adaline
Crouseville
Carson
Pauls
State Road
MAPLETON
Mapleton
CASTLE HILL
Castle Hill
Chapman
CHAPMAN
SCOPAN-MAINE PUBLIC RESERVED LAND
T11 R4 WELS
Aroostook River
Presque Isle Junction
Rands
Spragueville
AROOSTOOK STATE PARK
Quaggy Joe Mountain Trails
Grindstone
Haystack Mountain
McDonald Mountain
Scopan Lake
Scopan Mountain
Alder Lake
Northern Maine Regional Airport
Continue on Map 58
© DeLorme
1 inch = 2 mi 1 cm = 1.3 km



Legend

Streams

- AA
- A
- B
- C
- Ponds and Lakes
- Wastewater_Facilities
- Wastewater_Outfalls

Roads

JURISDICTION

- Town Road
- Town Road - Summer
- Town Road - Winter
- State-aided Highway
- State Highway
- Toll Highway
- Private Road
- Reservation Road
- Seasonal Parkway

N

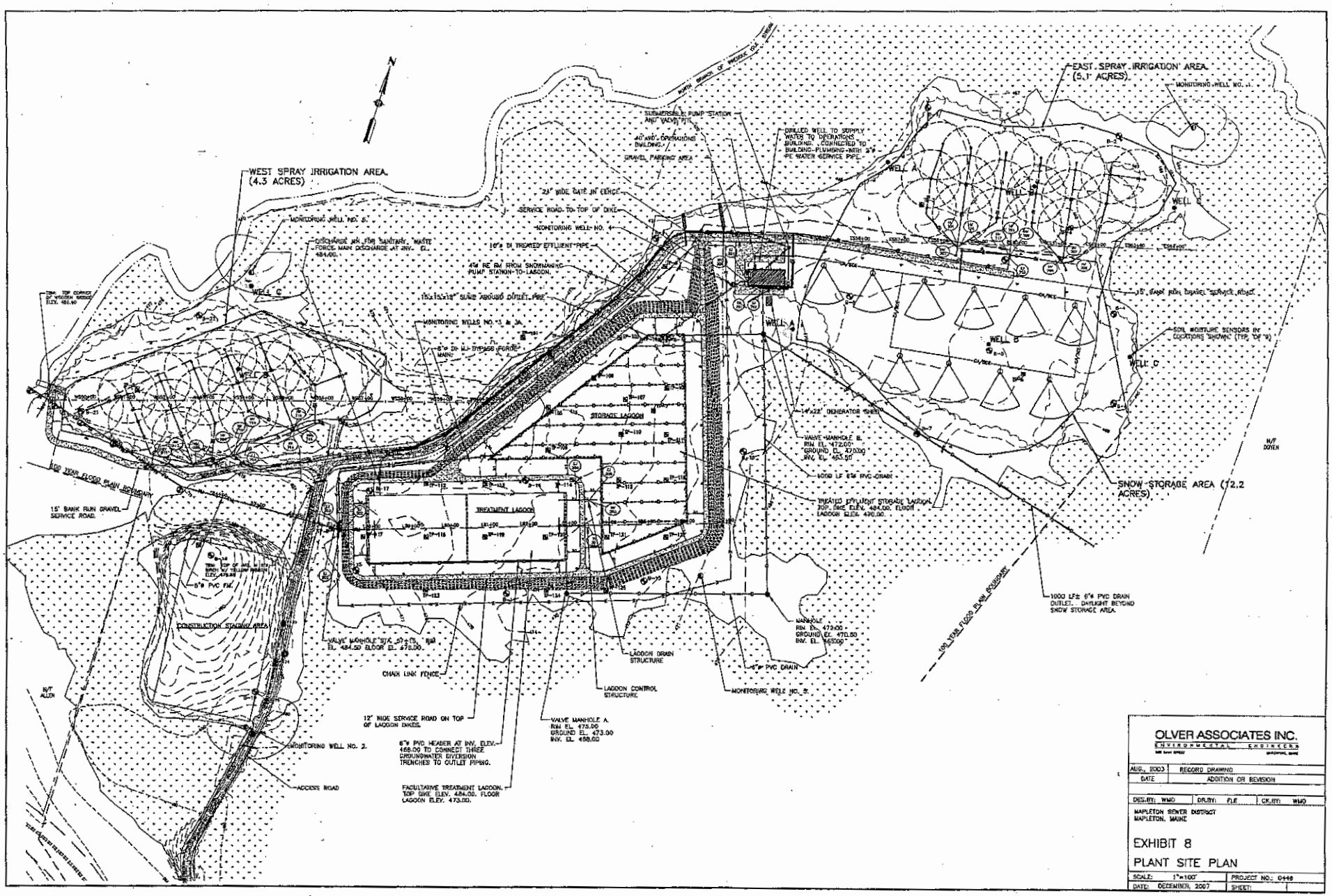
0 0.3 0.6 1.2 1.8 2.4 Miles

Mapleton Sewer District
Mapleton, Maine

Map created by:
Bob Stratton
Division of Water Quality Management
Maine Department of Environmental Protection

DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE OF MAINE

ATTACHMENT B



OLVER ASSOCIATES INC.
ENVIRONMENTAL ENGINEERS

AUG., 2003	RECORD DRAWING
DATE	ADDITION OR REVISION

DES.BY: WMO | DR.BY: FLE | CK.BY: WMO

MAPLETON SEWER DISTRICT
MAPLETON, MAINE

EXHIBIT 8
PLANT SITE PLAN

SCALE: 1"=100'	PROJECT NO.: 0448
DATE: DECEMBER, 2007	SHEET: