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

DEPARTMENT ORDER

IN THE MATTER OF

JASPER WYMAN & SON, INC.	) MAINE POLLUTANT DISCHARGE
MILBRIDGE AND CHERRYFIELD,	) ELIMINATION SYSTEM PERMIT
WASHINGTON COUNTY, MAINE	)
BLUEBERRY PROCESSING	AND
SURFACE WASTEWATER DISPOSAL SYSTEM	)
SURFACE WATER DISCHARGE	)
ME0001953	) WASTE DISCHARGE LICENSE
W000645-5P-J-R **APPROVAL**	) **RENEWAL**

In compliance with the applicable provisions of Pollution Control, 38 M.R.S. §411 – 424-B, Water Classification Program, 38 M.R.S. §464 – 470 and Federal Water Pollution Control Act, Title 33 U.S.C. § 1251, and applicable rules of the Department of Environmental Protection (DEPARTMENT), has considered the application of the JASPER WYMAN & SON, INC/permittee), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On July 16, 2020, the Department accepted as complete for processing an application for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0001953/Maine Waste Discharge License (WDL) #W000645-5P-G-R, (permit hereinafter) which was issued by the Department on July 7, 2015, for a five-year term. The 7/7/15 permit authorized the discharge of 1) a daily maximum of 0.10 million gallons per day (MGD) of blueberry canning and processing wastewaters to the Narraguagus River in Cherryfield via Outfall #001B; 2) a daily maximum of up to 0.270 MGD of non-contact cooling waters to the Narraguagus River in Cherryfield via Outfall #003B; and 3) the operation of an 18.3-acre (increased from 10 acres) surface wastewater (spray irrigation) system in Milbridge to dispose of an average of 40,700 gallons of blueberry processing wastewaters per acre per week during the period of April 15th – November 15th of each year via spray irrigation field SF-1.

PERMIT SUMMARY

This permit is carrying forward the terms and conditions of the previous permit except that this permit:

1. Revises Special Condition M. Pesticides and requires the permittee to submit a list of pesticides used during the previous season and institute sampling January 1st–May 31st following the use of Propiconazole or Methoxyfenozide during the previous season. Special Condition M also requires the permittee to sample for these parameters in one groundwater monitoring well that is downgradient of the wastewater storage lagoon(s) at a frequency of once in a 5-year permit cycle.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated September 1, 2022, 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 national resource, that water quality will be maintained and protected;

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

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

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

4. The discharge will be subject to effluent limitations that require application of best practicable treatment as defined in 38 M.R.S. § 414-A(1)(D).

ACTION

THEREFORE, the Department APPROVES the above noted application of JASPER WYMAN & SON, INC. to 1) operate a surface wastewater disposal system (spray irrigation) for the seasonal disposal of up to 106,260 gallons per day of blueberry processing and non-contact cooling wastewaters to ground waters, Class GW-A, in Milbridge, Maine; and 2) to discharge up to a daily maximum of up to 0.10 MGD of blueberry processing wastewaters and up to a daily maximum of up to 0.270 MGD of non-contact cooling waters to the Narraguagus River, Class B, in Cherryfield, Maine, SUBJECT TO THE FOLLOWING 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 effluent limitations and monitoring requirements.

3. This permit and the authorization to discharge become effective upon the date of signature below and expire at midnight five (5) years from the effective date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the authorization to discharge and the terms and conditions of this permit 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)].

DONE AND DATED AT AUGUSTA, MAINE, THIS ____DAY OF_____, 2022.

COMMISSIONER OF ENVIRONMENTAL PROTECTION

BY:_____
MELANIE LOYZIM, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application July 8, 2020.

Date of application acceptance July 16, 2020.

Date filed with Board of Environmental Protection _____

This Order prepared by Rod Robert, BUREAU OF WATER QUALITY

SPECIAL CONDITIONS
A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge **TREATED BLUEBERRY PROCESS WASTEWATER via Outfall #001B** to the Narraguagus River in Cherryfield, Maine. Such discharges must be limited and monitored by the permittee as specified below[(1)]:

Effluent Characteristic	**Discharge Limitations**				**Minimum Monitoring Requirements**	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow *[50050]*	---	0.10 MGD *[03]*	---	---	Daily When Discharging *[DL/DS]*	Measured *[MS]*
BOD_5 *[00310]*	130 lbs./day *[26]*	218 lbs./day *[26]*	Report mg/L *[19]*	Report mg/L *[19]*	2/Month[(2)] *[02/30]*	Grab *[GR]*
TSS *[00530]*	269 lbs./day *[26]*	390 lbs./day *[26]*	Report mg/L *[19]*	Report mg/L *[19]*	2/Month[(2)] *[02/30]*	Grab *[GR]*
pH *[00400]*	---	---	---	6.0 – 9.0 SU *[12]*	2/Month[(2)] *[02/30]*	Grab *[GR]*

2. The permittee is authorized to discharge **NON-CONTACT COOLING WASTEWATER EFFLUENT via Outfall #003** to the Narraguagus River in Cherryfield, Maine. Such discharges must be limited and monitored by the permittee as specified below[(1)]:

Effluent Characteristic	**Discharge Limitations**				**Minimum Monitoring Requirements**	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow *[50050]*	---	0.270 MGD *[03]*	---	---	1/Month *[01/30]*	Measured *[MS]*
Effluent Temperature *[00011]*	---	80 degrees Fahrenheit *[15]*	---	---	1/Month[(3)] *[01/30]*	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 (DMRs).

FOOTNOTES: **See Pages 8-9 of this permit for applicable footnotes.**

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

3. The permittee is authorized to operate a surface wastewater treatment and disposal system. The **LAGOON EFFLUENT DISCHARGE TO THE SPRAY IRRIGATION AREA (OUTFALL #006A)** must be limited and monitored as specified below [(1)]:

Effluent Characteristic	**Discharge Limitations**	**Minimum Monitoring Requirements**	
	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Lagoon Freeboard *[82564]*	Report, feet *[19]*	1/Month[(4)] *[01/30]*	Measure *[MS]*
Biochemical Oxygen Demand *[00310]*	Report, mg/L *[19]*	1/Month[(4)] *[01/30]*	Grab *[GR]*
Nitrate-Nitrogen *[00620]*	Report, mg/L *[19]*	1/Month[(4)] *[01/30]*	Grab *[GR]*
pH (Standard Units) *[00400]*	Report S.U. *[12]*	1/Month[(4)] *[01/30]*	Grab *[GR]*

FOOTNOTES: See Pages 9-10 of this permit for applicable footnotes.

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

4. The permittee is authorized to apply wastewater to the land via a spray irrigation system during the time period of **April 15th through November 15th of each calendar year**. The **SPRAY-IRRIGATION FIELD**, **SF-1** must be limited and monitored as specified below[(1)]:

Effluent Characteristic	**Discharge Limitations**		**Minimum Monitoring Requirements**	
	Monthly Total	Weekly Average	Measurement Frequency	Sample Type
Flow – Total Gallons *[82220]*	---	744,810 (Gallons/week) [(5)] *[8G]*	1/Week *[01/07]*	Calculate *[CA]*
Flow – Total Gallons *[82220]*	Report (Gallons) *[80]*	---	1/Month *[01/30]*	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 (DMRs).

FOOTNOTES: **See Pages 9-10 of this permit for applicable footnotes**.

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

5. **GROUND WATER MONITORING WELLS; MW006B** (the westerly most monitoring well located in spray area C-8), **MW006C** (the easterly most well located in spray area D-12), **MW006D** (located southerly of the lagoon), **MW006E** (located along the easterly embankment of the lagoon), **MW006F** (located along the northerly side of the lagoon) must be monitored as specified below.

Effluent Characteristic	**Discharge Limitations**	**Minimum Monitoring Requirements**	
	Daily Maximum	Measurement Frequency	Sample Type
Nitrate-Nitrogen *[00620]*	10 mg/L *[19]*	2/Year(7) *[02/YR]*	Grab *[GR]*
Depth to Water Level Below Land Surface*[72019]*	Report (feet)(6) *[27]*	2/Year(7) *[02/YR]*	Measure *[MS]*
Specific Conductance *[00095]*	Report (umhos/cm) *[11]*	2/Year(7) *[02/YR]*	Grab *[GR]*
Temperature *[00011]*	Report (Farhenheit) *[15]*	2/Year(7) *[02/YR]*	Grab *[GR]*
pH (Standard Units) *[0040]}*	Report (S.U.) *[12]*	2/Year(7) *[02/YR]*	Grab *[GR]*
Total Suspended Solids *[00530}*	Report (mg/L) *[19]*	2/Year(7) *[02/YR]*	Grab *[GR]*

FOOTNOTES: **See Pages 9-10 of this permit for applicable footnotes**.

SPECIAL CONDITIONS
A. LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

1. **Sampling –** All effluent monitoring must be conducted at a location following the last treatment unit in the treatment process as to be representative of end-of-pipe effluent characteristics. The permittee 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) 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 December 19, 2018). Laboratory facilities that analyze compliance samples in-house are subject to the provisions and restrictions of 10 − 144 CMR 263. 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 this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the discharge monitoring report (DMR).

2. **2/Month** – There must be at least ten (10) days between sampling events when possible based on processing frequency.

3. **Non-Contact Cooling Water Monitoring** – Effluent temperature monitoring requirements for non-contact cooling water discharges via Outfall #003 are required only during the months of **June, July, August and September** of each year.

4. **Lagoon Sampling Location** – Lagoon effluent must be sampled (at a point in the lagoon effluent pump outlet line where a sampling port has been installed) and must be representative of what is actually sprayed on the fields. Any change in sampling location must be approved by the Department in writing. Lagoon effluent sampling must be conducted in the months of **April, May, August, and October** of each calendar year in accordance with approved methods for sampling, handling and preservation. With the exception of freeboard, the permittee <u>is not</u> required to test for these parameters during a month where no wastewater was disposed of via the spray irrigation system.

5. **Spray Application Rate Calculation** – A field's weekly application rate is the total gallons sprayed over the applicable period of time. The permittee must measure the flow of wastewater to the spray irrigation area by the use of a flow measuring device that is checked for calibration at least once per calendar year. Weekly is defined as Sunday through Saturday.

6. **Depth to Water Level Below Land Surface Monitoring** – 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 and must be conducted in the months **of May and October** of each calendar year.

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

7. **Groundwater Monitoring** – Groundwater monitoring must be conducted during the months of May and October. Sampling, handling and preservation must be conducted in accordance with Special Condition A Footnote #1 of this permit. Temperature and pH are considered to be "field" parameters and are to be measured in the field via instrumentation. For purposes of this permit, specific conductivity may be measured in the laboratory (normally a field parameter) as long as Department approved methods for handling and preservation of the sample are adhered to and analysis is performed in accordance with methods approved by 40 Code of Federal Regulations (CFR) Part 136. Specific conductance sample must be temperature calibrated to 25°C.

B. TREATMENT PLANT OPERATOR

The person who has the management responsibility over the treatment facility must hold a Maine Grade SITS-II certificate or higher (or Registered Maine Professional Engineer) pursuant to Title 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 permittee may engage the services of the contract operator.

C. AUTHORIZED DISCHARGES

The permittee is authorized to discharge to discharge only: 1) in accordance with the permittee's General Application for Waste Discharge License, accepted for processing on July 16, 2020 2) in accordance with the terms and conditions of this permit; 3) via Outfall #001B (treated process wastewaters to the Narraguagus River); via Outfall #003B (non-contact cooling waters to the Narraguagus River); and 4) to the spray irrigation field SF-1. Discharges of wastewater from any other point source(s) are not authorized under this permit and must be reported in accordance with Standard Condition D(1)(F), *Twenty-four-hour reporting*, of this permit.

D. NARRATIVE EFFLUENT LIMITATIONS

1. The permittee must not discharge effluent that contains a visible oil sheen, foam or floating solids at any time which would impair the uses designated for the classification of the receiving waters.

2. The permittee must not discharge effluent that contains materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the uses designated for the classification of the receiving waters.

SPECIAL CONDITIONS

D. NARRATIVE EFFLUENT LIMITATIONS (cont'd)

3. The permittee must not discharge effluent that causes visible discoloration or turbidity in the receiving waters, which would impair the uses designated for the classification of the receiving waters.

4. The permittee must not discharge effluent that lowers the quality of any classified body of water below such classification or lowers the existing quality of any body of water if the existing quality is higher than the classification.

E. NOTIFICATION REQUIREMENTS

In accordance with Standard Condition 6, *Change of Discharge*, the permittee must notify the Department of the following:

1. 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 permit issuance.

2. 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.

F. GENERAL OPERATIONAL CONSTRAINTS

1. All wastewater must receive treatment through a properly designed, operated and maintained lagoon system prior to land irrigation.

2. The spray irrigation facilities must be effectively maintained and operated at all times so that there is neither discharge to surface waters nor any contamination of groundwater which will render it unsatisfactory for usage as a public drinking water supply.

SPECIAL CONDITIONS

F. GENERAL OPERATIONAL CONSTRAINTS (cont'd)

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 permit, 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 that groundwater monitoring results indicate lowering of the existing groundwater quality, the permittee 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, groundwater remediation, or ceasing operation of the system until the groundwater attains applicable standards.

4. The Department must be notified as soon as the permittee becomes aware of any threat to public health, unlicensed discharge of wastewater, or any malfunction that threatens the proper operation of the system. Notification must be made in accordance with the attached Standard Condition #4, *Monitoring and Reporting*, of this permit.

5. The permittee must maintain a file on the location of all system components and relevant features. System components including collection pipes, tanks, manholes, pumps, pumping stations, spray disposal fields, and monitoring wells must be identified and referenced by a unique identifier (alphabetical, numeric or alpha-numeric) in all logs and reports. Each component must be mapped and field located sufficiently to allow adequate inspections and monitoring by both the permittee and the Department.

G. SPRAY IRRIGATION OPERATIONAL CONSTRAINTS LOGS AND REPORTS

1. Wastewater may not be applied to areas without sufficient vegetation or ground cover as to prevent erosion or surface water runoff within or outside the designated boundaries of the spray fields. There must be no significant runoff within or out of the spray irrigation area due to the spray irrigation events.

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

3. No wastewater must be applied to the site 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 permittee 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 applied where there is snow present on the surface of the ground.

SPECIAL CONDITIONS

G. SPRAY IRRIGATION OPERATIONAL CONSTRAINTS LOGS AND REPORTS (CONT'D)

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

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

7. **Prior to the commencement of spray irrigation for the season (April 15 – November 15 of each year),** the permittee must notify the Department's compliance inspector that they have verified that site conditions are appropriate (frozen ground, soil moisture, etc.) for spray irrigation.

8. The permittee must maintain enough ground water level inspection wells per spray field to ensure that 10 inches of separation from the ground surface to the observed groundwater level is present prior to each spray event for each section of a field that is going to be sprayed. Depths to ground water must be recorded in accordance with the format similar to *"Monthly Operations Log" provided* as **Attachment A** of this license.

9. The permittee must at all times maintain in good working order and operate at maximum efficiency all wastewater collection, treatment and/or control facilities. Should significant malfunctions or leaks be detected, the permittee must shut down the malfunctioning portion of the spray system and make necessary repairs before resuming operation. The permittee must cease irrigation if runoff is observed outside the designated boundaries of the spray field.

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

SPECIAL CONDITIONS

H. VEGETATION MANAGEMENT

1. The permittee must remove grasses and other vegetation such as shrubs and trees, if necessary, so as not to impair the operation of the spray irrigation system, ensure uniform distribution of 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.

I. LAGOON MAINTENANCE

1. The integrity of the lagoons must be inspected periodically during the operating season and properly maintained at all times. There must be no overflow through or over the banks of the lagoons. Any signs of leaks or overflow must be repaired or corrected immediately upon discovery.

2. **The permittee must maintain all lagoon freeboard levels at design levels or at least two (2) feet whichever is greater**. The lagoons must be operated in such a way as to balance the disposal of wastewater via spray irrigation and to ensure that design freeboard levels are maintained.

3. The lagoons must be cleaned of solid materials as necessary to maintain the proper operating depths that will provide best practicable treatment of the wastewater. All material removed from the lagoon must be properly disposed of in accordance with all applicable State and Federal rules and regulations.

J. INSPECTIONS AND MAINTENANCE

The permittee 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, storage tanks, spray apparatus, and pipes. At a minimum, the logs must include the unique identifier [alphabetic, numeric or alpha-numeric -see Special Condition F(5) of this permit], the date of maintenance, type of maintenance performed, names of person(s) performing the maintenance, and other relevant system observations.

SPECIAL CONDITIONS

K. GROUND WATER MONITORING WELLS

1. All monitoring wells must be equipped and maintained 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.

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

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

This facility must have a current written comprehensive Operation & Maintenance (O & M) Plan. The plan must provide a systematic approach by which the permittee 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 permittee 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 permittee 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 Department personnel upon request.

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

M. PESTICIDES

By December 31st [ICIS ANNRP] submit a list of pesticides used during the previous season. Between January 1st and May 31st [ICIS code 07099], following the use of Propiconazole or Methoxyfenozide during the previous season, the permittee must sample for these parameters in one groundwater monitoring well that is downgradient of the wastewater storage lagoon(s) at a frequency of once in a 5-year permit cycle. Propiconazole will be sampled and analyzed via USEPA Environmental Chemistry Method (ECM) MRID 48697002 for water samples. Methoxyfenozide will be sampled and analyzed via USEPA ECM MRID 49525703 for water samples. Alternatives to the stated methodology or use of a laboratory that is not certified by the State of Maine's Department of Health and Human Services must be approved by the Department.

The permittee must report sample results to the Department by June 15th, as an attachment to the May Discharge Monitoring Report (DMR). The Department, in conjunction with the Maine Department of Agriculture's Board of Pesticide Control, or other State and/or federal agency/organization with expertise in pesticides will evaluate the information submitted and determine if further testing is necessary**.**

SPECIAL CONDITIONS

N. 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.

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
Eastern Maine Regional Office
Bureau of Water Quality
106 Hogan Road
Bangor, Maine 04401

SPECIAL CONDITIONS

O. REOPENING OF PERMIT FOR MODIFICATIONS

Upon evaluation of the tests results in the Special Conditions of this permitting action, new site-specific information, or any other pertinent test results or information obtained during the term of this permit, the Department may, at any time and with notice to the permittee, modify this permit to: (1) include effluent limits necessary to control specific pollutants or, for surface water discharges, 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.

P. SEVERABILITY

In the event that any provision, or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit 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.

Attachment A

Monthly Operations Log

Jasper Wyman (WDL #W000645) **(Month/Year)** _____

Spray Field #_____ **Weekly Application Rate**: _____gallons/week

A	B	C	D	E	F	G
Date	Precipitation Previous 24 hours (inches)	Air Temp (ºF)	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						
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31						

Signature of Responsible Official: _____ Date _____

Attachment B

Spray Application Report by Week

Jasper Wyman (WDL #W000645) **(Month/Year)** _____

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

Signature of Responsible Official: _____Date _____

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
MAINE WASTE DISCHARGE LICENSE

FACT SHEET

DATE: **September 1, 2022**

MEPDES PERMIT: **ME0001953**
WASTE DISCHARGE LICENSE: **W000645-5P-J-R**

NAME AND MAILING ADDRESS OF APPLICANT:

JASPER WYMAN & SON, INC.
P.O. Box 100
Milbridge, Maine 04658

COUNTY: **Washington County**

NAME AND ADDRESS OF FACILITY:

JASPER WYMAN & SON, INC.
178 Main St.
Cherryfield, ME

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

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Adam West**
(207) 546-3381
awest@wymans.com

1. APPLICATION SUMMARY:

a. Application: On July 16, 2020, the Department accepted as complete for processing an application for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0001953/Maine Waste Discharge License (WDL) #W000645-5P-G-R, (permit hereinafter) which was issued by the Department on July 7, 2015, for a five-year term. The 7/7/15 permit authorized the discharge of 1) up to a daily maximum of 0.10 million gallons per day (MGD) of blueberry canning and processing wastewaters to the Narraguagus River in Cherryfield via Outfall #001B; 2) a daily maximum of up to 0.270 MGD of non-contact cooling waters to the Narraguagus River in Cherryfield via Outfall #003B; and 3) the operation of an 18.3-acre (increased from 10 acres) surface wastewater (spray irrigation) system in Milbridge to dispose of an average of 40,700 gallons of blueberry processing wastewaters per acre per week during the period of April 15th – November 15th of each year via spray irrigation field SF-1.

1. APPLICATION SUMMARY

b. Source Description: The Jasper Wyman & Son, Inc. facility processes fresh blueberries between July and October, operates a canning line and rerun line year-round, and also operates a frozen storage warehouse year-round. Wastewater is generated in three operational modes identified as fresh blueberry processing mode, frozen blueberry processing mode, and canning blueberry processing mode.

Fresh blueberries are delivered from the fields to the fresh processing line and are brought to cold storage upon completion. The blueberries are cleaned by the principal of differential buoyancy in a processing system that uses sugar-laden water as a transport medium (where the lighter berries float) and then the berries are frozen for future uses. Wastewater is generated from the float-tank effluent, non-contact cooling water, used in this line to feed the individual quick-frozen tunnels which freeze the blueberries for storage, and wash-down water used for sanitation and cleaning. At the end of a production day, the wastewater is drained from the tank and discharged through a screen for solids reduction and then pumped to a storage tank with a capacity of 12,000 gallons. Between mid-May and October, the combined flow (100,250 gpd) of cooling water, process wastewater and wash-down water is discharged to the storage lagoon for spray irrigation.

Frozen (rerun) blueberries are delivered from cold storage to the rerun line for processing and are returned to cold storage upon completion. Wastewater (16,500 gpd) is generated from non-contact cooling water and wash-down water. Wastewater is discharged to the lagoon between mid-May and October.

Canning blueberry processing involves delivery of frozen blueberries from cold storage and the canned product is transported to dry storage for shipping. Wastewater is generated from non-contact cooling water, and wash-down water.

c. Wastewater Treatment: All wastewater from the fresh and frozen processing areas is discharged to the wastewater treatment system. Wastewater is funneled through the process wastewater basin and is treated by screening and settling including solids removal in riffle and floatation tanks, settling in a discharge basin, and further solids separation in a rotoscreen with a 1/8" mesh, then to a storage lagoon for spray irrigation.

Wyman conveys as much wastewater (processing wastewaters and non-contact cooling waters) to the storage lagoon as is practical and discharges wastewater that exceeds the lagoon storage capacity to the Narraguagus River.

A map showing the location of the facility, receiving water and outfall is included as **Attachment A** of this fact sheet.

2. PERMIT SUMMARY

a. Terms and Conditions: This permit is carrying forward the terms and conditions of the previous permit except that this permit:

1. Revises Special Condition M. Pesticides and requires the permittee to submit a list of pesticides used during the previous season and institute sampling January 1st–May 31st following the use of Propiconazole or Methoxyfenozide during the previous season. Special Condition M also requires the permittee to sample for these parameters in one groundwater monitoring well that is downgradient of the wastewater storage lagoon(s) at a frequency of once in a 5-year permit cycle.

b. History: This section provides a summary of significant licensing/permitting actions and milestones that have been completed for Wyman's Cherryfield facility.

December 28, 2009 – The Department issued combination MEPDES permit ME0001953/WDL W000645-5P-G-R to Wyman for a five-year term.

January 31, 2011 - The 12/28/09 WDL was modified to revise BOD and TSS limits to be consistent with the derivation of technology-based limits pursuant to 40 CFR Part 407 Subpart F, *Canned and Preserved Fruits Subcategory*.

January 22, 2015 - Wyman submitted a timely and complete General Application to the Department for renewal of the 12/28/09 permit.

July 7, 2015 – The Department issued combination MEPDES permit ME0001953/WDL W000645-5P-I-R to Wyman for a five-year term.

July 8, 2020 - Wyman submitted a timely and complete General Application to the Department for renewal of the 7/7/15 permit.

3. CONDITIONS OF PERMIT

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 applicable state law, and ensure that the receiving waters attain the State water quality standards as described in Maine's Water Classification System. In addition, *Certain deposits and discharges prohibited*, 38 M.R.S.§ 420 and *Surface Water Toxics Control Program*, 06-096 CMR 530 (effective October 9, 2005) require the regulation of toxic substances not to exceed levels set forth in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (amended February 16, 2020), and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER QUALITY STANDARDS

Classification of Ground Waters, 38 M.R.S. § 470 classifies the groundwater at the point of discharge as Class GW-A receiving water. *Standards of Classification of Ground Water,* 38 M.R.S., Section 465-C(1), describes the standards for water classified as Class GW-A as the highest classification of groundwater and must be of such quality that it can be used for public water supplies. These waters must be free of radioactive matter or any matter that imparts color, turbidity, or odor which would impair use of these waters, other than that occurring from natural phenomena.

Classification of major river basins, 38 M.R.S. § 467(6-A)(2) classifies the Narraguagus River from the confluence with the West Branch of the Narraguagus River in Cherryfield to tidewater as a Class B waterbody. *Standards for classification of fresh surface waters*, 38 M.R.S. § 465(3) describes the standards for Class B waters.

The Department has no information that the discharge from the permittee, as conditioned, causes or contributes to non-attainment of applicable Class B/Class GW-A water quality standards

5. RECEIVING WATER CONDITIONS

The State of Maine 2020 Integrated Water Quality Monitoring and Assessment Report (Report), prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists the Narraguagus River in Cherryfield as, "Category 4-A: Waters Impaired by Atmospheric Deposition of Mercury." Impairment in this context refers to a statewide fish consumption advisory due to elevated levels of mercury in some fish tissues. The Report states, "All freshwaters are listed in Category 4A (Total Maximum Daily Load (TMDL) Completed) due to the USEPA approval of a Regional Mercury TMDL. Maine has a fish consumption advisory for fish taken from all freshwaters due to mercury. Many waters and many fish from any given water do not exceed the action level for mercury. However, because it is impossible for someone consuming a fish to know whether the mercury level exceeds the action level, the Maine Department of Health and Human Services decided to establish a statewide advisory for all freshwater fish that recommends limits on consumption. Maine has already instituted statewide programs for removal and reduction of mercury sources." Pursuant to 38 M.R.S. § 420(1-B)(B), "a facility is not in violation of the ambient criteria for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413 subsection 11."

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Narraguagus River Discharges: The previous permitting action authorized the discharge of treated blueberry processing wastewater and non-contact cooling water to the Narraguagus River at Cherryfield. Wyman conveys as much of its wastewater and non-contact cooling waters to the storage lagoon as possible but discharges these wastewaters to the river to avoid exceeding the storage capacity of the lagoon. This section discusses monitoring requirements for process wastewater (Outfall #001B) and non-contact cooling water (Outfall #003B) discharges to the Narraguagus River.

Outfall #001 B – Blueberry Process Wastewater

a. Flow: The previous permitting action established a daily maximum flow limit of 0.1 MGD based on information provided by the permittee. A review of Discharge Monitoring Report (DMR) data for the period August 2015 – July 2020 indicates values have been reported as follows:

Flow (36 DMRs)

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Daily Maximum	0.10	0.0 – 0.09	0.043

Outfall #001 B – Blueberry Process Wastewater

b. Dilution Factors - The Department established applicable dilution factors for the discharge in accordance with freshwater protocols established in Department Rule Chapter 530 *Surface Water Toxics Control Program*, October 2005. With a permitted flow limit of 0.10 MGD, and USGS river gage data for the Narraguagus River at Cherryfield, the dilution factors are as follows:

Acute: $1Q10^{(1)} = 11.4$ cfs $\Rightarrow \frac{(11.4 \text{ cfs})(0.6464) + (0.10 \text{ MGD})}{(0.10 \text{ MGD})} = 75{:}1$

Chronic: $7Q10 = 45.6$ cfs $\Rightarrow \frac{(45.6 \text{ cfs})(0.6464) + (0.10 \text{ MGD})}{(0.10 \text{ MGD})} = 296{:}1$

Harmonic Mean = 137 cfs $\Rightarrow \frac{(137 \text{ cfs})(0.6464) + (0.10 \text{ MGD})}{(0.10 \text{ MGD})} = 886{:}1$

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

Footnotes

(1) Chapter 530.5 (D)(4)(a) states that analyses using numeric acute criteria for aquatic life must be based on 1/4 of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone. The 1Q10 is the lowest one-day flow over a ten-year recurrence interval. The regulation goes on to say that where it can be demonstrated that a discharge achieves rapid and complete mixing with the receiving water by way of an efficient diffuser or other effective method, analyses may use a greater proportion of the stream design, up to including all of it. The Department has made the determination that the discharge does not receive rapid and complete mixing, therefore, the modified acute (¼ 1Q10) is applicable.

a. Biochemical Oxygen Demand (BOD_5): The 12/28/09 permitting action stated in part;

The administrative record suggests that certain BOD_5 limits, including the annual average, may have been derived in consideration of the effluent guideline limitations promulgated at 40 CFR Part 407 Subpart F, Canned and Preserved Fruits Subcategory. The applicability of this subpart does not include discharges from blueberry processing facilities.

As a result, the Department performed a statistical evaluation of calendar years 2006-2009 effluent data to determine appropriate performance-based effluent thresholds to ensure that the wastewater receives best practicable treatment. Based on the 95th and 99th percentiles[1] for the data set, effluent limit thresholds for BOD were determined to be and established in the 12/28/09 permit as follows:

Outfall #001 B – Blueberry Process Wastewater

Monthly average:	19 lbs./day 46 mg/L	Daily maximum:	36 lbs./day 200 mg/L

In January 2011, the Department reconsidered the statement. "*The applicability of this subpart does not include discharges from blueberry processing facilities."* Federal regulation found at 40 CFR §407.61(c) of the applicable NEG states that "*The term caneberries must include the processing of the following berries: canned and frozen blackberries, blueberries, boysenberries….*" Therefore, BOD limits were established in a January 31, 2011 permit modification utilized the NEGs found at 40 CFR §407.62. The modification established technology-based BOD mass limits as follows:

[1] 95th percentile = (Std. Dev.)(1.960) 99th percentile = (Std. Dev.)(2.576)

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

National Effluent Guidelines – technology-based limits expressed in lbs/1,000 lbs of production Wyman's mean production in the month of August = 283,000 lbs/day which is based on a monthly average production of 8,500,000 pounds.

Product	Daily Max.	Mon. Avg.	Annual Avg.
Blueberries	0.77	0.46	0.32

Daily maximum mass limit: (0.77 lbs/1,000 lbs)(283) = 218 lbs/day

Monthly average mass limit: (0.46 lbs/1,000 lbs)(283) = 130 lbs/day

Annual average mass limit: (0.32 lbs/1,000 lbs)(283) = 90 lbs/day

The technology based monthly average and daily maximum mass limitations are being carried forward in this licensing action. A review of DMR data for the period August 2015-July 2020 indicates values have been reported as follows:

BOD (35 DMRs)

Value	Limit (lbs/day)	Range (lbs/day)	Mean (lbs/day)
Monthly Average	130	0.0 – 114	31
Daily Maximum	218	0.3 - 286	55

Outfall #001 B – Blueberry Process Wastewater

The 12/28/09 permit established monthly average and daily maximum concentration limitations based on the same statistical evaluation methodology as was conducted for establishing the mass limitations for BOD. The Department reconsidered its position on establishing concentration limits in permits that are based on NEGs. The mass limits derived from the NEGs are by themselves, limits that are representative of the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

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

b. Total Suspended Solids – The 12/28/09 permit contained the following italicized text;

The previous licensing action established a daily maximum concentration limit of 80 mg/L, a daily maximum mass limit of 65 lbs./day (backcalculated from the concentration limit and discharge flow limit of 0.10 MGD), a monthly average mass limit of 45 lbs./day and an annual average mass limit of 30 lbs./day for TSS. The basis for these limits is identical to that described above for BOD_5.

A summary of the effluent TSS data for Outfall #001B as reported on the DMRs submitted to the Department for the period January 2006 through May 2009 is as follows:

TSS	***Minimum***	***Maximum***	***Arithmetic Mean***	***# DMRs***
Monthly Average	*0.16 lbs./day*	*3.1 lbs./day*	*1.4 lbs./day*	*22*
Daily Maximum	*0.16 lbs./day*	*7 lbs./day*	*2.3 lbs./day*	*22*
	4 mg/L	*70 mg/L*	*19.2 mg/L*	*22*

The Department is carrying forward the daily maximum concentration limit of 80 mg/L and the monthly average mass limit of 45 lbs./day based on best professional judgment of best practicable treatment. This permitting action is revising the daily maximum mass limit to 66 lbs./day[2] based on a reduction in the discharge flow limit, and is establishing a monthly average concentration limit of 54 mg/L[3]. The Department is making a best professional judgment that an annual average mass limitation is not necessary to demonstrate BPT or to ensure that the water quality standards ascribed to Class B waters are met, and is therefore eliminating the previously established limit.

[2] (80 mg/L)(8.34 lbs./gal)(0.10 MGD) = 66 lbs./day

[3] (45 lbs./day)/[(8.34 lbs./gal)(0.10 MGD)] = 54 mg/L

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

Outfall #001 B – Blueberry Process Wastewater

As with BOD, limits should have been established utilizing the NEGs found at 40 CFR §407.62. The 1/31/11 permit modification established technology based TSS mass limits as follows:

Wyman's mean production in the month of August = 283,000 lbs/day

National Effluent Guidelines – technology based limits expressed in lbs/1,000 lbs of production

Product	Daily Max.	Mon. Avg.	Annual Avg.
Blueberries	1.38	0.95	0.58

Daily maximum mass limit: (1.38 lbs/1,000 lbs)(283) = 390 lbs/day

Monthly average mass limit: (0.95 lbs/1,000 lbs)(283) = 269 lbs/day

Annual average mass limit: (0.58 lbs/1,000 lbs)(283) = 164 lbs/day

The technology based monthly average and daily maximum mass limitations are being carried forward in this permitting action. A review of DMR data for the period August 2015-July 2020 indicates values have been reported as follows:

TSS (31 DMRs)

Value	Limit (lbs/day)	Range (lbs/day)	Mean (lbs/day)
Monthly Average	269	0.0 – 21	3.4
Daily Maximum	390	0.03 –59	8.9

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

c. pH: The previous permitting action established and this permitting action carries forward a daily maximum pH range limitation of 6.0 – 9.0 SU for Outfall #001B based on best professional judgment of best practicable treatment. A review of DMR data for the period August 2015-July2020 indicates values have been reported as follows:

pH (standard units) (36 DMRs)

Value	Limit (s.u)	Range (s.u)
Daily Maximum	6.0 -9.0	6.1 – 8.0

Outfall #003B – Non-contact cooling water

d. Flow: The previous permitting action established a daily maximum flow limit of 0.27 MGD based on information provided by the permittee. A review of (DMR) data for the period August 2015-July 2020 indicates values have been reported as follows:

Flow (49 DMRs)

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Daily Maximum	0.27	0.0 – 0.01	0.008

e. Temperature: The previous permitting action established, and this permitting action is carrying forward, a daily maximum effluent temperature limitation of 80° F for Outfall #003B (non-contact cooling water) to ensure that the discharge complies with the requirements of *Regulations Relating to Temperature*, 06-096 CMR 582 (last amended February 18, 1989). With a 7Q10 of 45.6 cfs (29.5 MGD) the thermal assimilative capacity (expressed in BTUs) of the receiving water can be calculated as follows:

(29,500,000 gallons)(8.34 lbs/gal)(0.5°F) = 12.3×10^7 BTUs/day

If the facility is discharging cooling water at maximum flow (0.27 MGD) and maximum temperature 80° F, and the receiving water is at a critical temperature of 66° F, what is the thermal load to the river? The calculation is as follows:

(270,000 gallons)(8.34 lbs/gal)(80°F - 66°F) = 3.1×10^7 BTUs/day

3.1×10^7 BTUs/day < 12.3×10^7 BTUs/day therefore the full permitted discharge will be in compliance with the Chapter 582 regulation.

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

A review of (DMR) data for the period August 2015- July 2020 indicates values have been reported as follows:

Temperature (12 DMRs)

Value	Limit (°F)	Range (°F)	Mean (°F)
Daily Maximum	80	59 - 70	65

Spray Irrigation

Slow rate land irrigation treatment is an environmentally sound and appropriate technology for best practicable treatment and disposal of wastewater. The theory behind surface wastewater disposal systems is to utilize the top 10-12 inches of organic matter and in-situ soils to attenuate the pollutant loadings in the applied wastewaters. The soils and vegetation within the spray field area will provide adequate filtration and absorption to preserve the integrity of the soil, and both surface and ground water quality in the area.

f. *Biochemical Oxygen Demand (BOD_5)* –BOD is the rate at which organisms use the oxygen in wastewater while stabilizing decomposable organic matter under aerobic conditions. BOD measurements indicate the organic strength of wastes in water. The Department has established a "Report" requirement at this time for BOD while reserving the possibility to establish a numeric limit in the future based on BPT technology or other relevant factors. Monitoring for BOD yields an indication of the effectiveness of the lagoon treatment process and the condition of the wastewater being applied.

g. *pH* - pH is considered a "field" parameter meaning that it is measured directly in the field via instrumentation and does not require laboratory analysis. It is considered a surveillance level monitoring parameter that is used as an early-warning indicator of potential ground water contamination and is carried forward from the previous licensing action.

h. *Specific Conductance* – Like pH, specific conductance is considered a "field" parameter, meaning that it is measured directly in the field via instrumentation and does not require laboratory analysis. It is considered a surveillance level monitoring parameter that is used as an early-warning indicator of potential ground water or surface water contamination and is being carried forward from the previous licensing action.

i. *Insecticides, Fungicides, Herbicides (collectively referred to as pesticides* – Farmers may utilize insecticides such as (phosmet), fungicides (chlorothalonil, propiconazole), and other pesticides on the crop at various times during berry producing years. Based on the varying persistence of these and other pesticides in water and soil, the Maine Board of Pesticide Control has recommended that it may be necessary to monitor pesticides in storage tank/lagoon effluent, groundwater monitoring locations, and spray irrigation site soils.

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

Because farmers are regularly changing pesticides, this permit is requiring the permittee to report to the December 31st a list of pesticides used during the previous season. Between January 1st and May 31st, following the use of Propiconazole or Methoxyfenozide during the previous season, the permittee must sample for these parameters in one groundwater monitoring well that is downgradient of the wastewater storage lagoon(s) at a frequency of once in a 5-year permit cycle. Propiconazole will be sampled and analyzed via USEPA Environmental Chemistry Method (ECM) MRID 48697002 for water samples. Methoxyfenozide will be sampled and analyzed via USEPA ECM MRID 49525703 for water samples. Alternatives to the stated methodology or use of a laboratory that is not certified by the State of Maine's Department of Health and Human Services must be approved by the Department. The permittee must report sample results to the Department by June 15th, as an attachment to the May Discharge Monitoring Report (DMR). The Department, in conjunction with the Maine Department of Agriculture's Board of Pesticide Control, or other State and/or federal agency/organization with expertise in pesticides will evaluate the information submitted and determine if further testing is necessary.

Spray Irrigation

If deemed appropriate, sampling for pesticides in ground water monitoring wells must be conducted according to the frequency and methods determined by the Department. If analysis indicates the presence of pesticides in the storage tank/lagoon effluent at or above; (1) Maximum Exposure Guidelines (MEGs), (2) Action Levels (ALs), (3) Maximum Contamination Levels (MCLs) or (4) other scientifically defensible critical thresholds established in literature, the licensee must conduct sampling for the parameter in the ground water monitoring locations in the May monitoring period in the 5th year of the license cycle.

j. *Application Rates (Weekly)* – The weekly maximum rate of 1.5 inches/week or 40,700 gal/ac/week is being carried forward from the previous permitting action but is being expressed as the allowable gallons of wastewater spray irrigated on the entire 18.3 acre site. The new limitation has been calculated to be 744,810 gallons per week. This will give the permittee the flexibility to adjust application rates within the sprayfield as a whole. The weekly limit is based on the characteristics of in-situ soils.

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

k. *Nitrate-nitrogen* – Nitrogen assumes different forms depending upon the oxidation-reduction conditions in the soil and ground water. The presence of a particular form of nitrogen indicates the nutrient attenuation capacity of the spray site. The Department considers the required monitoring for various forms of nitrogen in ground water and soils to provide accurate and sufficient analysis of site conditions and effects from the treatment process. The monitoring well sampling can also help identify chronic leakage from the lagoon or overloading of the spray sites. The spray area soil sampling requirement addresses the efficiency of the soils in attenuating the pollutant loading, helping to safeguard against exceeding the ability for plant uptake which would result in accumulation of excess nitrogen in the soils. Nitrogen compounds can indicate human health concerns if elevated in a drinking water supply. The 10 mg/l limit for nitrate nitrogen in monitoring wells is based on state and federal drinking water standards.

l. *Depth to Water Level Below Land Surface* – Measuring the distance from the ground level to the ground water surface in monitoring wells will be used to monitor representative groundwater conditions.

m. *Temperature* – Temperature is considered a "field" parameter, meaning that it is measured directly in the field via instrumentation and does not require laboratory analysis. It is considered a surveillance level monitoring parameter that is used as an early-warning indicator of potential ground water contamination and is being carried forward from the previous licensing action.

7. MONITORING AND MONITORING RESULTS

Spray Irrigation

a. Lagoon Effluent (Outfall 006A)

BOD (mg/L) (DMR's = 16)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Daily Maximum	Report	300 - 1,400	669

pH (standard units) (DMR's = 16)

Value	Limit (s.u)	Range (s.u)
Daily Maximum	Report	3.9 – 6.6

7. MONITORING AND MONITORING RESULTS (cont'd)

Nitrate-Nitrogen (mg/L) (DMR's = 11)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Daily Maximum	Report	<0.05 - 0.25	<0.126

b. Spray application rates (SF-1)

Weekly Average Rate (gal/week) (DMR's = 60)

Value	Limit (gal/week)	Range (gal/week)
Weekly average	744,810	59,400 – 737,325

Monthly total (gallons) (DMR's = 26)

Value	Limit (gal/mo)	Range (gal/mo)	Average (gal/mo)
Total	Report	59,400 – 2,656,200	557,629.5

Ground water

There are five monitoring wells associated with the spray irrigation area and lagoon. The five monitoring wells are:

Monitoring Wells	Location
MW006B	Westernmost well located in spray area associated with spray zone C-8.
MW006C	Easternmost well located in spray area associated with spray zone D-12.
MW006D	Southernmost well located on southerly side of lagoon.
MW006E	Located along the eastern berm of the lagoon.
MW006F	Located along the northern berm of the lagoon.

7. MONITORING AND MONITORING RESULTS (cont'd)

Values summarized below are mean values for results reported from August 2015- July 2020.

Well #	Temperature (Deg F)	Conductance (umhos/cm)	pH Range (SU)	TSS (mg/L)	Nitrate-Nitrogen (mg/L)
MW006B	48	45	6.0	<2.5	<0.5
MW006C	---	---	---	---	---
MW006D	51	736	6.6	24	<0.5
MW006E	48	361	6.6	0.7	<0.5
MW006F	51	223	5.9	157	1.1

Well #	Depth-to-Water Level (feet)
MW006B	4.1
MW006C	---
MW006D	4.1
MW006E	5.4
MW006F	6.9

8. SYSTEM CALIBRATION

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

9. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

Based on information to date, the Department has determined the existing water uses will be maintained and protected provided the permittee complies with the terms and conditions established herein.

10. PUBLIC COMMENTS

Public notice of this application was made in the Ellsworth American newspaper on July 2, 2020. 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 permits 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).

11. DEPARTMENT CONTACTS

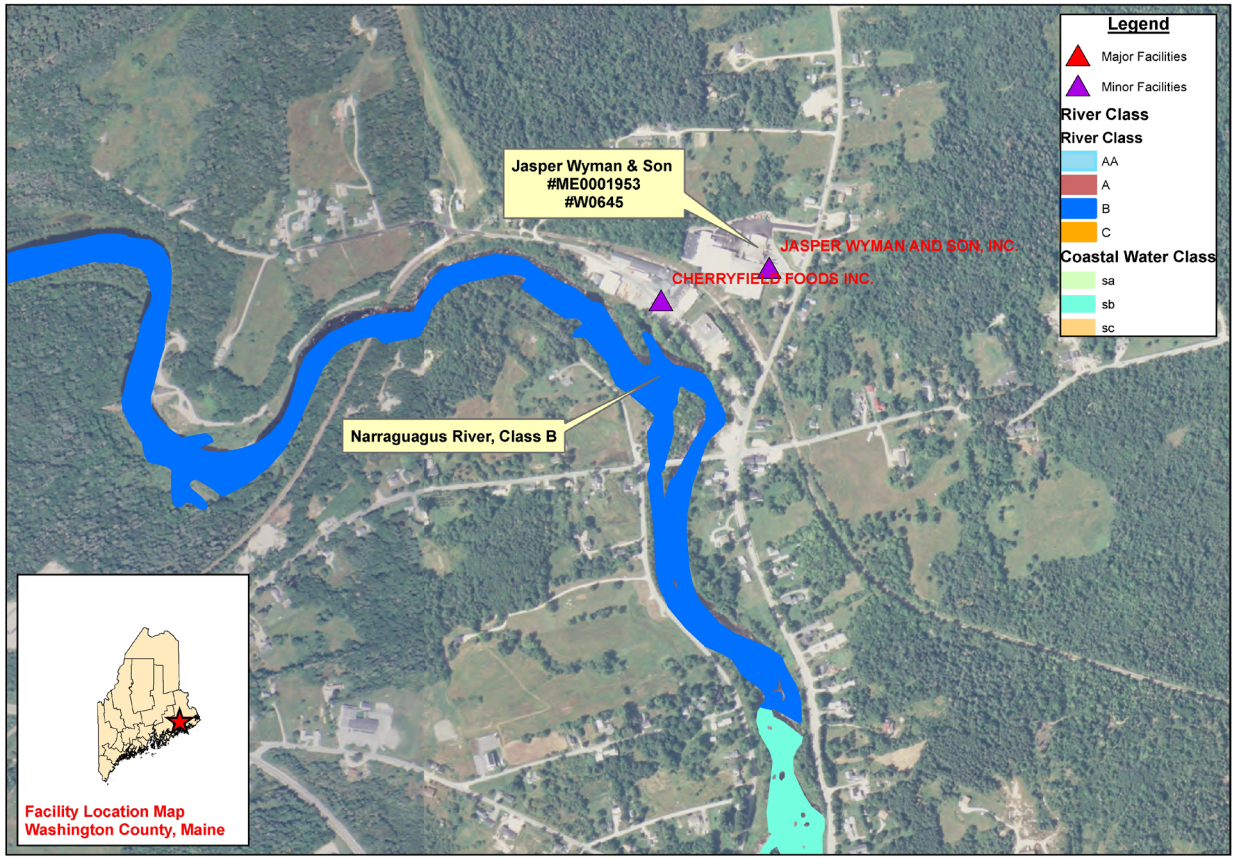
Additional information concerning this permitting action may be obtained from, and written comments sent to:

Rodney Robert
Division of Water Quality Management
Bureau of Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 680-0576
e-mail: rodney.robert@maine.gov

12. RESPONSE TO COMMENTS

Reserved until the end of the formal 30 day comment period

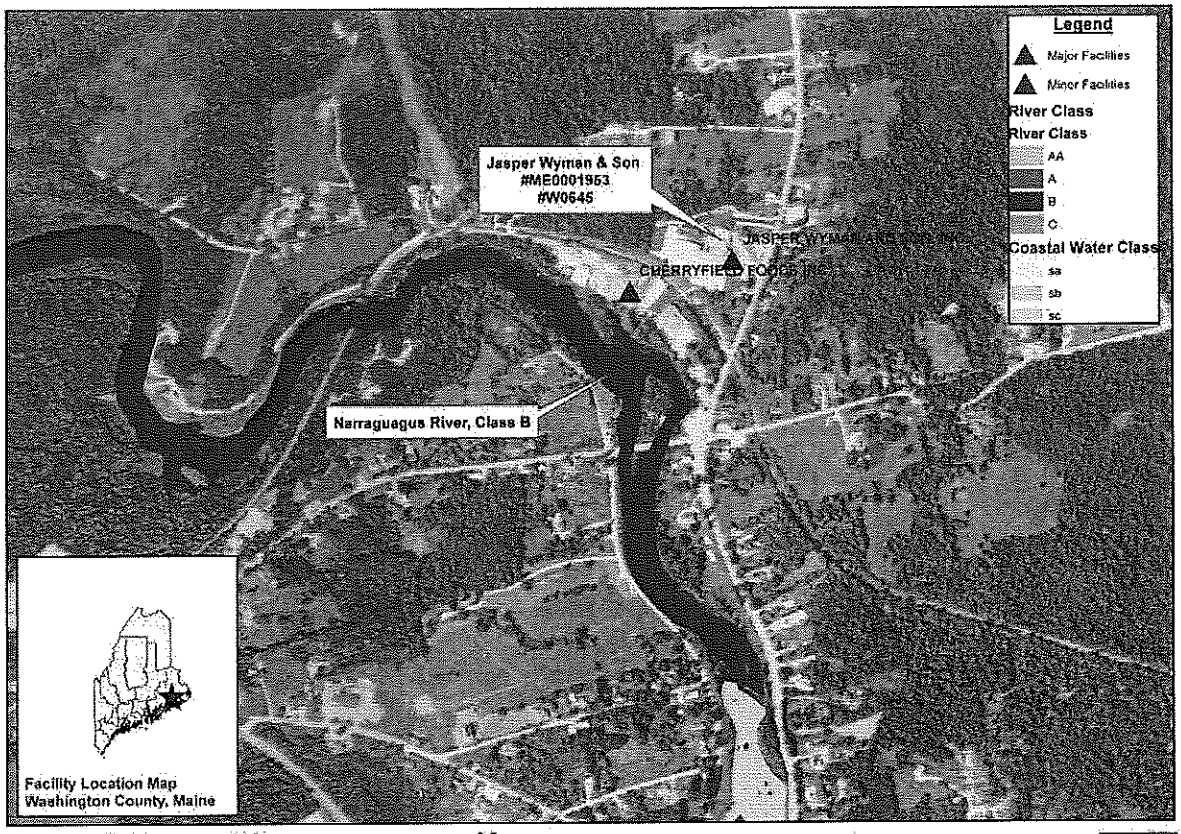
ATTACHMENT A



Jasper Wyman & Son, Inc. - Cherryfield/Milbridge, Maine

Map created by Maine DEP
November 2009

ATTACHMENT A



Jasper Wyman & Son, Inc. - Cherryfield/Milbridge, Maine