STATE OF MAINE

Department of Environmental Protection

Paul R. LePage
GOVERNOR

Patricia W. Aho
COMMISSIONER

January 20, 2015

Mr. Daniel Bowker
Environmental Coordinator
Cherryfield Foods Inc.
30 Ridge Road, P.O. Box 128
Cherryfield, ME. 04622
e-mail:dbowker@cherryfieldfoods.com

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit#ME0037222
Maine Waste Discharge License (WDL) Application #W006234-5P-H-R
Proposed Draft License

Dear Mr. Bowker:

Enclosed is a **proposed draft** MEPDES/WDL (permit hereinafter) which the Department proposes to issue 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 permit and its 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 permit from various state and federal agencies, as required by our regulations, and from any other parties who have notified the Department of their interest in this matter.

All comments must be received in the Department of Environmental Protection office on or before the close of business **Friday, February 20, 2015.** Failure to submit comments in a timely fashion will result in the final 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 Land & Water Quality
Division of Water Quality Management
17 State House Station
Augusta, ME 04333

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-3901 FAX: (207) 287-3435
RAY BLDG., HOSPITAL ST.

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

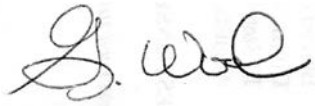
PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-6477 FAX: (207) 764-1507

web site: www.maine.gov/dep

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

Sincerely,



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

Enc.

cc: Clarissa Trasko, DEP/EMRO
Lori Mitchell, DEP/CMRO
David Webster, USEPA
David Pincumbe, USEPA
Alex Rosenberg, USEPA
Marelyn Vega, USEPA
Olga Vergara, USEPA
Maine Inland Fisheries & Wildlife
Maine Department of Marine Resources
Ivy Frignoca, CLF

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

DEPARTMENT ORDER

IN THE MATTER OF

CHERRYFIELD FOODS, INC.	)	MAINE POLLUTANT DISCHARGE
MILBRIDGE AND CHERRYFIELD,	)	ELIMINATION SYSTEM PERMIT
WASHINGTON COUNTY, MAINE	)	
SURFACE WASTEWATER DISPOSAL SYSTEM	)	AND
SURFACE WATER DISCHARGE	)	
ME0037222	)	WASTE DISCHARGE LICENSE
W006234-5P-H-R **APPROVAL**	)	**RENEWAL**

Pursuant to the provisions of the *Federal Water Pollution Control Act*, Title 33 USC, §1251, *Conditions of licenses*, 38 M.R.S.A. § 414-A, and applicable regulations, the Department of Environmental Protection (Department hereinafter) has considered the application of CHERRYFIELD FOODS, INC., (CFI/permittee/licensee hereinafter) with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

CFI has submitted a timely and complete application to the Department for the renewal of Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0037222/Waste Discharge License (WDL) #W006234-5P-G-R, (permit hereinafter) issued by the Department on December 28, 2009, for a five-year term. The 12/28/09 permit authorized the operation of a surface waste water (spray irrigation) system in Milbridge, Maine, to dispose of blueberry process waste waters and wash-down waste waters to ground water, Class GW-A and a daily maximum discharge of up to 0.10 million gallons per day (MGD) of non-contact cooling waters to the Narraguagus River, Class B, in Cherryfield, Maine. Treatment is achieved by screening, solid separation and three (3) storage lagoons with seasonal disposal via a 13.0-acre spray irrigation site located easterly from the processing facility. The 12/28/09 permit authorized the licensee to apply waste water to the spray irrigation field at a rate of 1.5 inches per week (~40,725 gallons per acre per week) for a total maximum of 529,425 gallons per week over the entire 13.0 acre spray irrigation area.

LICENSE SUMMARY

The permittee has not requested any modifications to the previous permitting action. This permitting action is carrying forward all the terms and conditions of the 12/28/09 permit except that this permit is;

1. Eliminating the monitoring requirements for total suspended solids, total kjeldahl nitrogen, chemical oxygen demand and specific conductance for Outfall #001 (lagoon effluent).

2. Converting the weekly application rate expressed as gal/acre/week to gal/week to provide the permittee with more flexibility to manage the spray site given the varying soil types within the 13-acre designated spray field.

3. Eliminating the monitoring requirements for total kjeldahl nitrogen and chemical oxygen demand for the four (4) ground water monitoring wells MW7A, MW7B, MW7C and MW7D.

CONCLUSIONS

BASED on the findings in the attached **PROPOSED DRAFT** Fact Sheet dated January 20, 2015, 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.A. §464(4)(F), will be met, in that:

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

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

   (c) 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.

CONCLUSIONS

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

ACTION

THEREFORE, the Department APPROVES the above noted application of CHERRYFIELD FOODS, INC., to operate a surface waste water disposal system in Milbridge, Maine, to treat and dispose of process and wash-down waste waters to ground water, Class GW-A, and discharge a daily maximum of up to 0.10 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.A. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(21)(A) (amended August 25, 2013)]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS ____ DAY OF _____2015.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
PATRICIA W. AHO, Commissioner

Date of initial receipt of application: August 1, 2014

Date of application acceptance: August 14, 2014

Date filed with Board of Environmental Protection _____

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

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to operate a surface waste water treatment and disposal system. The **STORAGE LAGOON EFFLUENT (OUTFALL #005A)** shall be limited and monitored as specified below[(1)].

	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Lagoon Freeboard *[82564]*	Report (feet) [(2)] *[27]*	1/Month *[01/30]*	Measure *[MS]*
Biochemical Oxygen Demand *[00310]*	Report, 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]*

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

Footnotes: See pages 8-9 of this license.

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS

2. The permittee is authorized to operate a spray irrigation system on **SPRAY FIELD SF-1** as follows. Application of waste water to the land via the spray irrigation system shall be limited to the time period **April 15th to November 15th of each calendar year**. The spray-irrigation field, (SF-1) shall be limited and monitored as specified below[(1)].

Parameter	**Monthly Total** as specified	**Weekly Average** as specified	**Measurement Frequency** as specified	**Sample Type** as specified
Flow – Total Gallons[(4)] *[82220]*	---	529,425 gal/week[(5)] *[8G]*	1/Week *[01/07]*	Calculate *[CA]*
Flow – Total Gallons[(4)] *[82220]*	Report (Gallons) *[8D]*	---	1/Month *[01/30]*	Calculate *[CA]*

Footnotes: See pages 8-9 of this permit.

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS

3. The permittee shall monitor **GROUND WATER MONITORING WELLS; MW007A** (the westerly most monitoring well and down-gradient of lagoon #1), **MW007B** (is located northerly of MW007A and down-gradient of lagoon #1), **MW007C** (located easterly of lagoon #1 and westerly of lagoon #2), **MW007D** (located southerly of lagoon #2 and down-gradient of the spray field, SF-1), as specified below**(1)**.

Monitoring Parameters	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Nitrate-Nitrogen *[00620]*	10 mg/L *[19]*	2/Year(7) *[02/YR]*	Grab *[GR]*
Depth to Water Level Below Landsurface *[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 (Fahrenheit) *[15]*	2/Year(7) *[02/YR]*	Grab *[GR]*
pH (Standard Units) *[00400}*	Report (S.U.) *[12]*	2/Year(7) *[02/YR]*	Grab *[GR]*

Footnotes: See pages 8-9 of this permit.

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS

4. The permittee is authorized to discharge **NON-CONTACT COOLING WATER** to the Narraguagus River via **OUTFALL #002A**. Such discharges shall be limited on a year-round basis and monitored by the permittee from April – November of each year as specified below[(1)].

Effluent Characteristic	Discharge Limitations	Minimum Monitoring Requirements	
	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Flow [50050]	0.10 MGD [03]	1/Month [01/30]	Measure [MS]
Effluent Temperature [00011]	78 degree Fahrenheit [15]	2/Month[(8)] [02/30]	Grab [GR]

Footnotes: See pages 9-10 of this permit.

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

1. **Sampling –** All effluent monitoring shall be conducted at a location following the last treatment unit in the treatment process as to be representative of end-of-pipe effluent characteristics. Sampling and analysis must be conducted in accordance with; a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services. Samples that are sent to a POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S.A. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (last amended February 13, 2000).

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

2. **Storage Lagoon freeboard** shall be reported as the mathematical difference between the water level in the lagoon and the lowest elevation point in the top of the lagoon berm. It shall be measured monthly 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 shall estimate this value and indicate this to the Department.

3. **Storage Lagoon Sampling Period –** Lagoon effluent sampling shall 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. The permittee is not required to test for these parameters during a month where no waste water was disposed of via the spray irrigation system.

4. **Spray Application Rate Calculation** – A field's weekly application rate is the total gallons sprayed over the applicable period of time. The permittee shall measure the flow of waste water 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.

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

SPECIAL CONDITIONS

A. LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

6. **Depth to Water Level 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 shall be conducted in the months **of May and October** of each calendar year.

7. **Ground Water Monitoring** – Ground water sampling shall be conducted the months of **May and October** of each year. Sampling, handling and preservation shall be conducted in accordance with federally approved methods. 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 permittee is required to test for these parameters whether wastewater was disposed of via the spray-irrigation system or not.

8. **Non-Contact Cooling Water Monitoring** – Effluent temperature monitoring requirements for non-contact cooling water discharges via Outfall #002A are required only during the months of **June, July, August and September** of each year.

B. TREATMENT PLANT OPERATOR

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

C. AUTHORIZED DISCHARGES

The 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 August 14, 2014; 2) in accordance with the terms and conditions of this license; 3) to the existing spray-irrigation field [SF-1]; and 4) non-contact cooling waters to the Narraguagus River via Outfall #002A. Discharges of wastewater from any other point source are not authorized under this permit, and shall be reported in accordance with Standard Condition 11, *Bypass of Waste Treatment Facilities*, of this permit.

SPECIAL CONDITIONS

D. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent shall not contain a visible oil sheen, foam or floating solids at any time which would impair the usages designated for the classification of the receiving waters.

2. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usages designated for the classification of the receiving waters.

3. The discharge shall not cause visible discoloration or turbidity in the receiving waters, which would impair the usages designated for the classification of the receiving waters.

4. Notwithstanding specific conditions of this license the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

E. NOTIFICATION REQUIREMENT

In accordance with Standard Condition #6, the permittee shall notify the Department of the following:

1. Any substantial change in the volume or character of pollutants being introduced into the treatment system. For the purposes of this section, notice regarding substantial change shall include information on:

   a. the quality and quantity of waste water introduced to the treatment system; and

   b. any anticipated impact caused by the change in the quantity or quality of the waste water to be introduced into the treatment system.

F. GENERAL OPERATIONAL CONSTRAINTS

1. All waste water shall receive treatment through a properly designed, operated and maintained screen and settling tank system prior to land irrigation.

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

3. The surface waste water disposal system shall not cause the lowering of the quality of the ground water, as measured in the ground water monitoring wells specified by this permit, below the State Primary and Secondary Drinking Water Standards specified in the Maine State Drinking Water Regulations pursuant to Maine law 22 M.R.S.A. § 2611. In the event that ground water monitoring results indicate lowering of the existing groundwater quality, the permittee may be required to take immediate remedial action(s), which may

SPECIAL CONDITIONS

F. GENERAL OPERATIONAL CONSTRAINTS (cont'd)

include but not limited to, adjustment of the irrigation schedule or application rates, a reduction of the pollutant loading, ground water remediation, or ceasing operation of the system until the groundwater attains applicable standards.

4. The Department shall be notified as soon as the permittee becomes aware of any threat to public health, unlicensed discharge of waste water, or any malfunction that threatens the proper operation of the system. Notification shall be made in accordance with the attached Standard Condition #4 of this license.

5. The permittee shall 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 shall be identified and referenced by a unique identifier (alphabetical, numeric or alpha-numeric) in all logs and reports. Each component shall 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. Waste water 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 shall 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 shall be present prior to each spray irrigation event.

3. No waste water shall be applied to the site following a rainfall accumulation exceeding 1.0 inches within the previous 24-hour period. **A rain gauge shall be located on site to monitor daily precipitation.** The permittee shall also manage application rates by taking into consideration the forecast for rain events in the 48-hour period in the future**.**

4. No waste water shall be applied where there is snow present on the surface of the ground.

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

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

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

SPECIAL CONDITIONS

G. SPRAY IRRIGATION OPERATIONAL CONSTRAINTS, LOGS AND REPORTS

8. The permittee shall install the equivalent of one ground water level inspection well per spray field to verify that 10 inches of separation from the ground surface to the observed groundwater level is present each day prior to spraying.

9. 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. 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 shall cease irrigation if runoff is observed outside the designated boundaries of the spray field.

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

H. VEGETATION MANAGEMENT

1. The permittee shall remove grasses and other vegetation such as shrubs and trees if necessary so as not to impair the operation of the spray-irrigation system, ensure uniform distribution of waste water over the desired application area and to optimize nutrient uptake and removal.

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

I. LAGOON MAINTENANCE

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

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

SPECIAL CONDITIONS

I. LAGOON MAINTENANCE (cont'd)

3. The lagoons shall 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 lagoons shall be properly disposed of in accordance with all applicable State and Federal rules and regulations.

J. INSPECTIONS AND MAINTENANCE

The permittee shall periodically inspect all system components to ensure the facility is being operated and maintained in accordance with the design of the system. Maintenance logs shall be maintained for each major system component including pumps, pump stations, storage tanks, spray apparatus, and pipes. At a minimum, the logs shall include the unique identifier [alphabetic, numeric or alpha-numeric -see Special Condition F(5)], the date of maintenance, type of maintenance performed, names of person(s) performing the maintenance, and other relevant system observations.

K. GROUND WATER MONITORING WELLS

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

2. 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.

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

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

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

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

SPECIAL CONDITIONS

M. MONITORING AND REPORTING

Monitoring results obtained during the month (**April through November**) shall be summarized for each month and reported on separate Discharge Monitoring Report (DMR) forms provided by the Department and postmarked on or before the thirteenth (13th) day of the month or hand-delivered to the Department's Regional Office such that the DMR's are received by the Department on or before the fifteenth (15th) day of the month following the completed reporting period. A signed copy of the DMR and all other reports required herein shall be submitted to the following address:

Department of Environmental Protection
Eastern Maine Regional Office
Bureau of Land and Water Quality
106 Hogan Road
Bangor, Maine 04401

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

O. REOPENING OF LICENSE FOR MODIFICATIONS

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

P. SEVERABILITY

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

Attachment A

Monthly Operations Log

Cherryfield Foods (WDL #W006234) **(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						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

Signature of Responsible Official: _____ Date _____

Attachment B

Spray Application Report by Week

Cherryfield Foods (WDL #W006234) **(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: **January 20, 2015**

MEPDES PERMIT: **ME0037222**
WASTE DISCHARGE LICENSE: **W006234-5P-H-R**

NAME AND MAILING ADDRESS OF APPLICANT:

CHERRYFIELD FOODS, INC.
P.O. Box 128, 320 Ridge Road
Cherryfield, ME. 04622

COUNTY: **WASHINGTON COUNTY**

NAME AND ADDRESS OF FACILITY:

CHERRYFIELD FOODS, INC.
Park Street
Cherryfield, Maine 04622

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

COGNIZANT OFFICIAL AND TELEPHONE NUMBER:

Daniel Bowker
Environmental Coordinator
(207) 546-7134
dbowker@cherryfieldfoods.com

1. APPLICATION SUMMARY

a. Application: Cherryfield Foods Inc. (CFI/permittee/licensee hereinafter) has submitted a timely and complete application to the Department for the renewal of Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0037222/Waste Discharge License (WDL) #W006234-5P-G-R, (WDL hereinafter) issued by the Department on December 28, 2009, for a five-year term. The 12/28/09 WDL authorized the operation of a surface waste water (spray irrigation) system in Milbridge, Maine, to dispose of blueberry process waste waters and wash-down waste waters to ground water, Class GW-A and a daily maximum of up to 0.10 million gallons per day (MGD) of non-contact cooling waters to the Narraguagus River, Class B, in Cherryfield, Maine. See **Attachment A** of this Fact Sheet for a location map of the processing plant and spray irrigation site.

1. APPLICATION SUMMARY

Treatment is achieved by screening, solid separation and three (3) storage lagoons with seasonal disposal via a 13.0-acre spray irrigation site located easterly from the processing facility. The previous WDL authorized the permittee to apply waste water to the spray irrigation field at a rate of 1.5 inches per week (~40,725 gallons per acre per week) for a total maximum of 529,425 gallons per week over the entire 13.0 acre spray irrigation area).

2. PERMIT SUMMARY

a. Terms and Conditions: The permittee has not requested any modifications to the previous permitting action. This permitting action is carrying forward all the terms and conditions of the 12/28/09 permit except that this license is;

1. Eliminating the monitoring requirements for total suspended solids, total kjeldahl nitrogen, chemical oxygen demand and specific conductance for Outfall #001 (lagoon effluent).

2. Converting the weekly application rate expressed as gal/acre/week to gal/week to provide the permittee with more flexibility to manage the spray site given the varying soil types within the 13-acre designated spray field.

3. Eliminating the monitoring requirements for total kjeldahl nitrogen and chemical oxygen demand for the four (4) ground water monitoring wells MW7A, MW7B, MW7C and MW7D.

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

September 28, 2004– The Department issued WDL #W006234-5P-F-R to CFI for a five-year term. The 9/28/04 license superseded previous WDL #W006234-42-D-R, which was issued on August 11, 1991 for a five-year term, and WDL #W006234-42-A-N, which was issued on August 6, 1985 for a five-year term (earliest Order on file with the Department).

December 28, 2009 – The Department issued MEPDES permit MEU506234/WDL #W006234-5P-G-R to Cherryfield Foods, Inc. for a five-year term.

August 1, 2014 – CFI submitted a timely and complete application to the Department to renew MEPDES permit MEU506234/WDL #W006234-5P-G-R issued on December 28, 2009.

c. Source Description: The CFI facility generates blueberry processing wastewater and clean-up water associated with the handling and packaging of blueberries. The facility handles processed and frozen blueberries year-round between early January and late December. The processing plant has the capacity to process up to 40,000 pounds of blueberries per day, and generates a maximum of 21,000 gallons of waste water per day. The waste water from the processing operations contains natural dissolved and suspended organic

2. PERMIT SUMMARY (cont'd)

matter and other solids. Maine Wild Blueberry Co. may transport a portion of its wastes water via tractor-trailer tankers to the CFI lagoon site for blending, processing and land application. A typical delivery of wastewater from the Maine Wild Blueberry Co. is 8,000 gallons.

A supplemental environmental project was undertaken by CFI to eliminate process wastewater discharges to the Narraguagus River in 2006. Canning process wastewater is now pumped to the lagoons in Milbridge for land application via spray irrigation.

CFI was authorized by the 12/28/09 licensing action to discharge a daily maximum of up to 0.10 MGD of non-contact cooling waters to the Narraguagus River.

d. Wastewater Treatment: Wastewater generated through the canning operations at Cherryfield Foods, Inc. is collected in floor drains throughout the canning area of the facility and flows to a 2-foot wide by 3-foot high by 2-foot deep, 90-gallon sump pit. Waste water is then pumped to a screen within the facility vibrating room for solid separation. Once the solids are separated, the waste water is eventually transported to two (2) 10,000-gallon storage tanks. The wastes are pumped from these tanks to the lagoon site. Wastewater flow is typically discharged into Lagoon #1 and transferred via pumping to Lagoons #2 or 3 as necessary. See **Attachment B** of this fact sheet for a flow schematic of the processing facility.

There are three (3) clay-lined wastewater lagoons located at the lagoon site in Milbridge. The original lagoon was constructed in the 1990's and has a 500,000 gallon capacity. A second lagoon (with a capacity of 670,000 gallons) was constructed during the fall of 2000 to augment the existing lagoon and was installed to eliminate winter storage limitations. During the fall of 2003, a third lagoon was constructed with a capacity of 525,000 gallons. The combined capacity of all three lagoons is 1,695,000 gallons.

Wastewater is pumped from the lagoons to a land spray irrigation site comprised of 13.0 acres of land, which is divided into three sections designated as Sections A, B, and C. The spray irrigation area is characterized by stony glacial till and grey silty clay with a 3-8% slope. The glacial till areas occupy the areas of higher elevation whereas the clayey areas are typically found along lower elevations. Soils area generally well-drained within the higher elevations of the site and slightly less well-drained along the lower areas. The land spray irrigation sites are located along a gentle slope with a southerly aspect ranging between 120 and 145 feet above mean sea level containing a well distributed stand of mixed forest hardwood and softwood trees.

3. CONDITIONS OF PERMIT

Conditions of licenses, 38 M.R.S.A. § 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, *Certain deposits and discharges prohibited*, 38 M.R.S.A. § 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 (effective October 9, 2005), 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 water, 38 M.R.S.A. § 470 states *"All ground water shall 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.A. § 465-C(1) contains the standards for the classification of ground waters. *"Class GW-A shall be the highest classification and shall be of such quality that it can be used for public drinking water supplies. These waters shall 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."*

Classification of major river basins, 38 M.R.S.A. § 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.A. § 465(3) describes the standards for Class B waters as follows;

> *Class B waters must be of such quality that they are suitable for the designated uses of drinking water supply after treatment; fishing; agriculture; recreation in and on the water; industrial process and cooling water supply; hydroelectric power generation, except as prohibited under Title 12, section 403; navigation; and as habitat for fish and other aquatic life. The habitat must be characterized as unimpaired.*
>
> *The dissolved oxygen content of Class B waters may not be less than 7 parts per million or 75% of saturation, whichever is higher, except that for the period from October 1st to May 14th, in order to ensure spawning and egg incubation of indigenous fish species, the 7-day mean dissolved oxygen concentration may not be less than 9.5 parts per million and the 1-day minimum dissolved oxygen concentration may not be less than 8.0 parts per million in identified fish spawning areas. Between May 15th and September 30th, the number of Escherichia coli bacteria of human and domestic animal origin in these waters may not exceed a geometric mean of 64 per 100 milliliters or an instantaneous level of 236 per 100 milliliters. In determining human and domestic animal origin, the department shall assess licensed and unlicensed sources using available diagnostic procedures.*
>
> *Discharges to Class B waters may not cause adverse impact to aquatic life in that the receiving waters must be of sufficient quality to support all aquatic species indigenous to the receiving water without detrimental changes in the resident biological community.*

5. RECEIVING WATER CONDITIONS

The State of Maine 2012 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 all freshwaters in Category 5-C, *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, "*Impairment caused by atmospheric deposition of mercury; a regional scale TMDL has been approved. 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 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.A. § 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.*" The Department is making a best professional judgment determination that the wastewaters have not come in contact with compounds or materials containing mercury and is therefore exempt from the establishment of interim mercury limits pursuant to 06-096 CMR 519(1)(A)(2).

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

a. Groundwater Monitoring Wells & Monitoring

During the previous permitting period four groundwater monitoring wells were monitored. The monitoring wells are sited as follows:

Monitoring Wells	PCS Code	Location
MW-007A	007A	The westernmost monitoring well located down-gradient of lagoon #1
MW-007B	007B	Located northerly of MW-007A and down-gradient of lagoon #1
MW-007C	007C	Located easterly of lagoon #1 and westerly of lagoon #2
MW-007D	007D	Located southerly and down-gradient of lagoon #2

Monitoring Parameters

Slow rate land irrigation treatment is an environmentally sound and appropriate technology for best practicable treatment and disposal of waste water. The theory behind surface waste water 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 waste waters. 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.

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

The applicant shall periodically monitor the storage lagoon effluent, spray irrigation fields, ground water monitoring locations, and spray field soil conditions on site at the specified frequencies and locations as called for in Special Condition A of this permit.

a. *Biochemical Oxygen Demand (BOD_5)* –BOD is the rate at which organisms use the oxygen in waste water 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 waste water being applied.

b. *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.

c. *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.

d. *Application Rates (Weekly)* – The weekly maximum rate of 529,425 gallons per week (1.5 inches per week) is being carried forward from the previous licensing action. The weekly limit is based on the characteristics of in-situ soils.

e. *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.

f. *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.

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

g. *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. HISTORIC MONITORING RESULTS

Below is a summary of the lagoon effluent and ground water monitoring test results and spray application rates for the period May 2011 – May 2014.

a. Lagoon Effluent (Outfall 005)

TSS (mg/L) (DMRs = 5)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Daily Maximum	Report	15 – 102	42

pH (standard units) (DMRs = 5)

Value	Limit (s.u)	Range (s.u)	Average (s.u)
Daily Maximum	Report	4.1 – 7.3	n/a

Specific conductance (umhos/cm) (DMRs = 5)

Value	Limit (umhos/cm)	Range (umhos/cm)	Avg. (umhos/cm)
Daily Maximum	Report	49 - 369	232

Nitrate-Nitrogen (mg/L) (DMRs = 5)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Daily Maximum	Report	ND @<0.05	ND @<0.05

Total Kjeldahl-Nitrogen (mg/L) (DMRs = 5)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Daily Maximum	Report	2.3 – 21	9.1

Chemical Oxygen Demand (mg/L) (DMRs = 5)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Daily Maximum	Report	47 – 3,757	910

b. Spray application rates

Monthly totals applied (gallons) (DMRs = 15)

Value	Limit (gal)	Range (gal)	Average (gal)
Monthly total	529,425	47,300 - 933,00	344,247

7. HISTORIC MONITORING RESULTS (cont'd)

c. Ground water

Values summarized below are mean values based on seven (7) DMRs

Parameter	TSS (mg/L)	Conductance (uhmos/cm)	Nitrate-Nitrogen (mg/L)	COD (mg/L)
Well #.	---	---	---	---
MW-7A	96	131	<0.05	---
MW-7B	2	652	<0.05	2
MW- 7C	<2	91	0.1	---
MW-7D	42	898	<0.05	5

d. Non-contact cooling water Discharges to Narraguagas River- Outfall #002

1. Flow: The previous permitting action established a daily maximum discharge flow limitation of 0.10 million gallons per day (MGD) for non-contact cooling waters that is being carried forward in this license. A review of the monitoring results for the period June 2011 – September 2014 indicate results are as follows;

Flow (MGD) (DMRs = 38)

Value	Limit (MGD)	Range (MGD)	Average (MGD)
Daily Maximum	0.1	0.02 – 0.05	0.03

2. Temperature: The previous permitting action established, and this permitting action is carrying forward, a daily maximum effluent temperature limitation of 78^{o} F for Outfall #002A along with a 2/Month monitoring requirement. Chapter 582, *Regulations Relating To Temperature*, states that no discharge shall cause the ambient temperature of any freshwater body such as a stream or river, as measured outside a mixing zone, to be raised more than 5°F. The regulation also limits a discharger to an in-stream temperature increase (ΔT) of 0.5° F above the ambient receiving water temperature when the weekly average temperature of the receiving water is greater than or equal to 66° F or when the daily maximum temperature is greater than or equal to 73° F. The temperature thresholds are based on EPA water quality criterion for the protection of brook trout and Atlantic salmon (both species indigenous to the Narraguagus River). The weekly average temperature of 66° F was derived to protect for normal growth of the brook trout and the daily maximum threshold temperature of 73° F protects for the survival of juveniles and adult Atlantic salmon during the summer months. As a point of clarification, the Department interprets the term "weekly average temperature" to mean a seven (7) day rolling average. To promote consistency, the Department also interprets the ΔT of 0.5° F as a weekly rolling average criterion when the receiving water temperature is ≥66° F and <73° F. When the receiving water temperature is ≥73°F, compliance with the ΔT of 0.5° F is evaluated on a daily basis.

7. HISTORIC MONITORING RESULTS (cont'd)

Maine law, 38 M.R.S.A. §464(4)(D), states that the assimilative capacity of a receiving water shall be calculated utilizing a seven-day low event with a recurrence interval of ten years that is often referred to as the 7Q10. The Department has determined based on the calculations below, that at the full permitted flow rate of 0.10 MGD and 7Q10 river flow conditions, the discharge of non-contact cooling waters will not violate the requirements of 06-096 CMR 582.

Given:
7Q10 of the Narraguagus River = 31.7 cfs or 20.5 MGD
Critical temperature threshold= 66°F
Effluent flow = 0.10 MGD (obtained from wells)
Effluent temperature = 78^{o} F

Find
Temperature increase of the receiving water at critical conditions (7Q10, maximum effluent flow and temperature).

$$\frac{(20.5\ \text{MGD})(66°\text{F}) + (0.10\ \text{MGD})(78°\text{F})}{20.6\ \text{MGD}} = 66.06°\text{F or } \Delta T = +0.06°\text{F}$$

Temperature (°F) (DMRs = 11)

Value	Limit (°F)	Range (°F)	Average (°F)
Daily Maximum	78	62 - 86	72

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 designated and existing uses of the ground water and surface waters 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 *Bangor Daily* newspaper on or about July 24, 2014. 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 shall 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

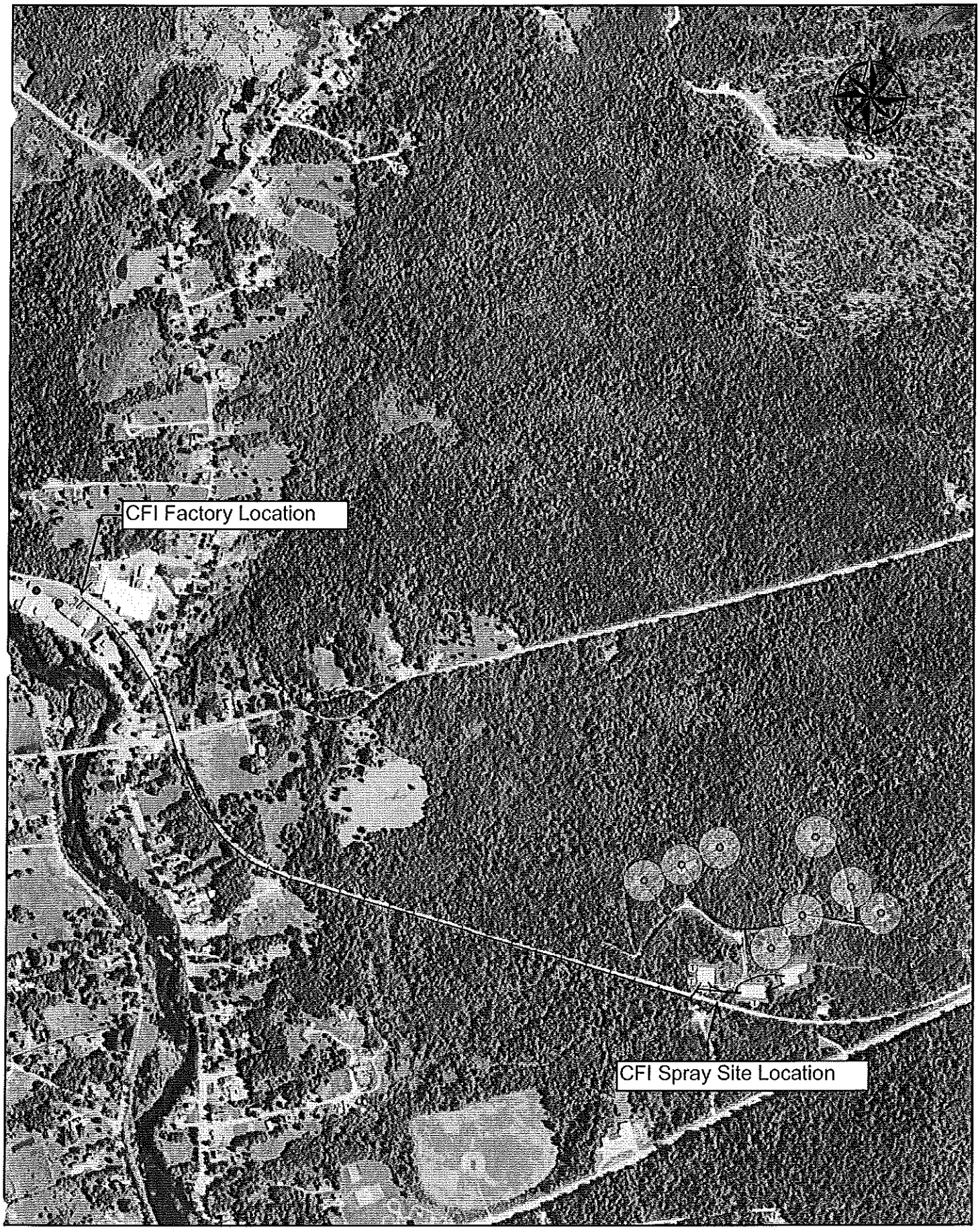
Additional information concerning this permitting action may be obtained from, and written comments sent to:

Gregg Wood
Division of Water Quality Management
Bureau of Land & Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 287-7693 Fax: (207) 287-3435
e-mail: gregg.wood@maine.gov

12. RESPONSE TO COMMENTS

Reserved until the close of the formal 30-day public comment period.

ATTACHMENT A

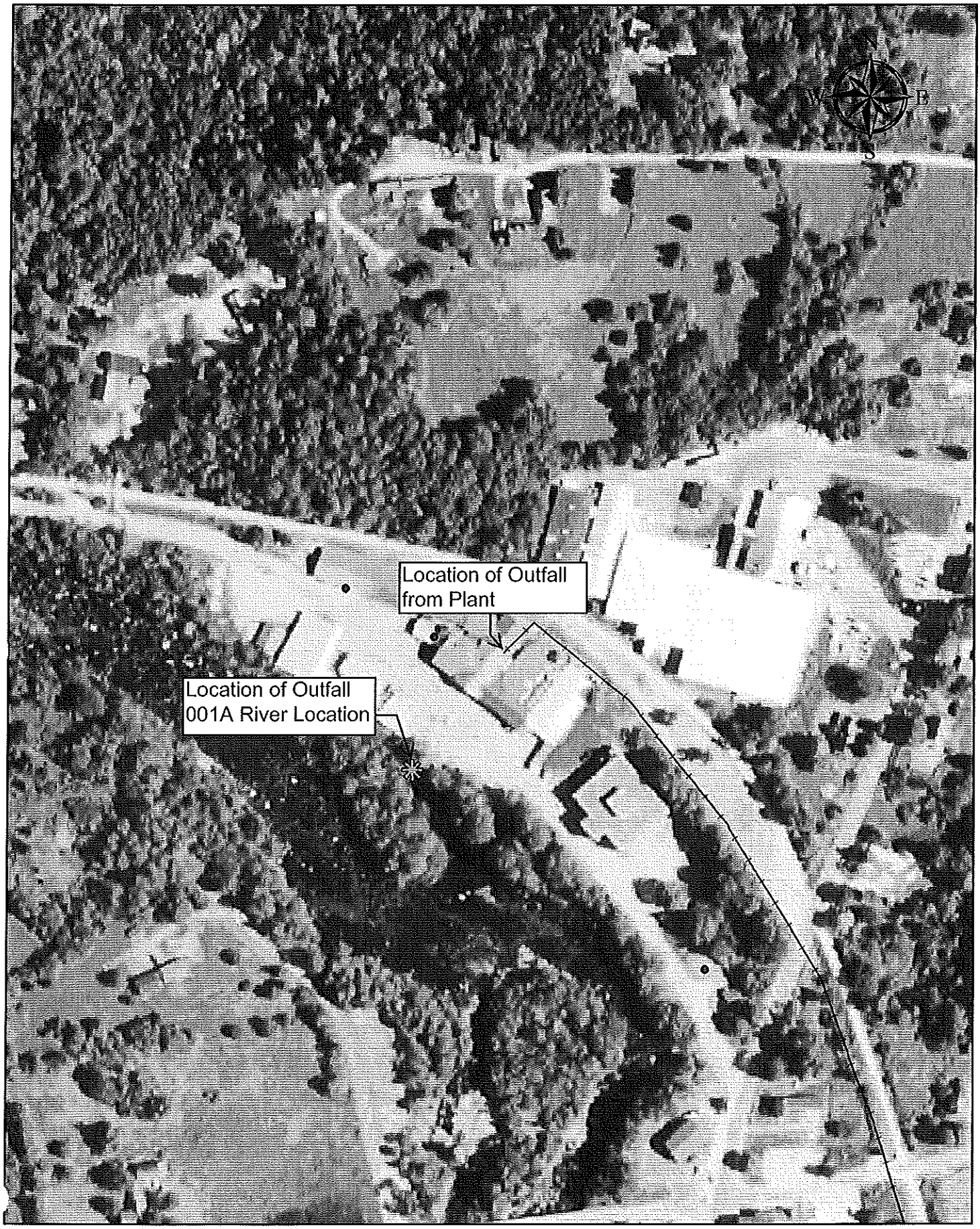


Maine Wild Blueberry Co.

1:9,600 1 inch equals 800 feet

0 550 1,100 2,200 Feet

Cherryfield Foods Inc.
Spray Irrigation Site and
Factory location

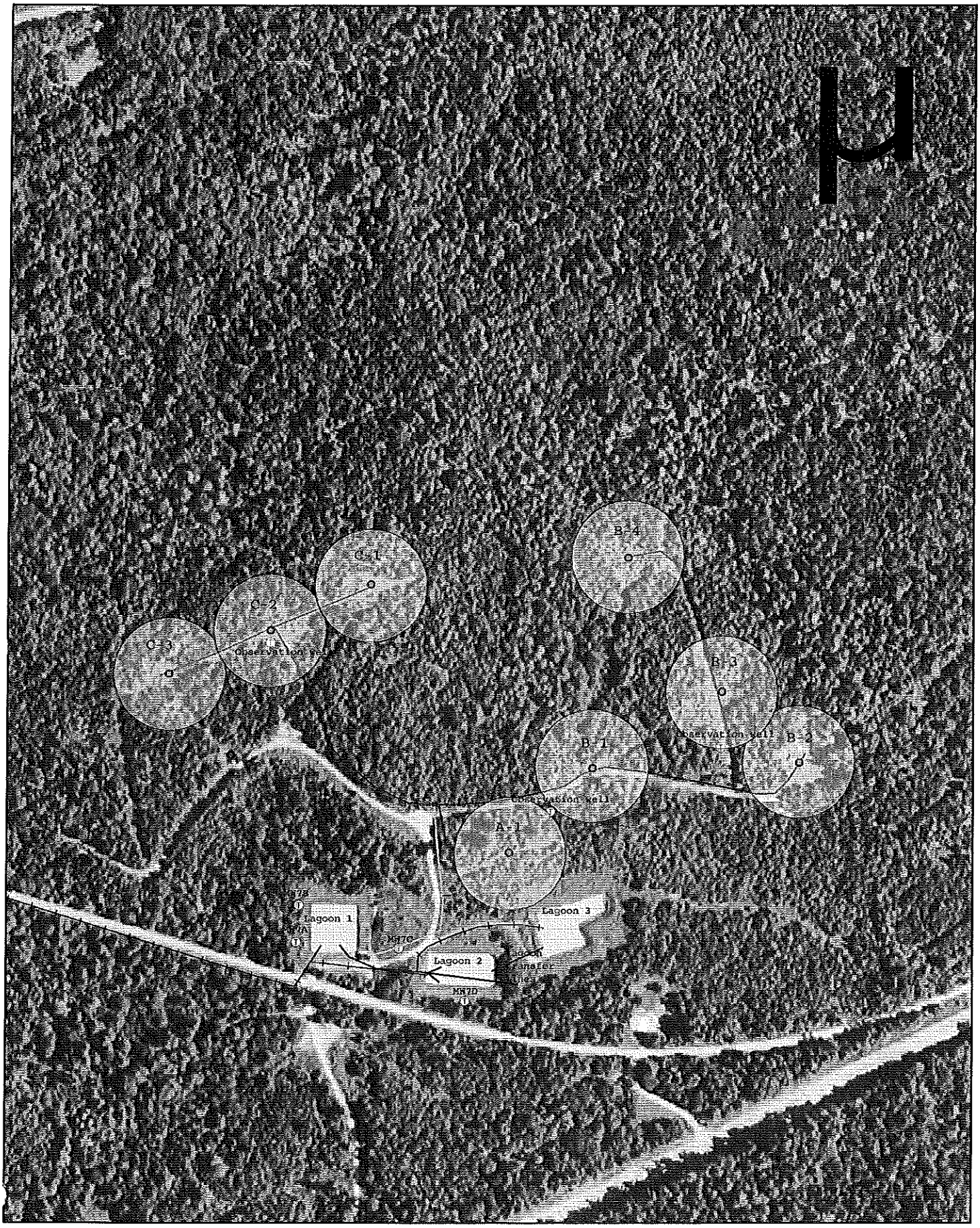


Maine Wild Blueberry Co.

1:2,400 1 inch equals 200 feet

0 135 270 540 Feet

Cherryfield Foods Inc.
Factory Outfall Location
Stillwater Road



Moine Wild Blueberry Co.
73 Elm Street
OXFORD

1:3,600 1 inch equals 300 feet

0 205 410 820 Feet

Cherryfield Foods Inc.
Spray Irrigation Site
ME0037222

ATTACHMENT B

Cherryfield Foods Inc.