STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

February 12, 2007

Ms. Drusilla Ray
Lawrence Ray Fishing Industries
54 Wyman Road
Milbridge, Maine 04658

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0110272
Maine Waste Discharge License (WDL) Application # W-007894-5P-B-R
Final Permit/License

Dear Ms. Ray:

Enclosed please find a copy of your **final** MEPDES permit and Maine WDL which was approved by the Department of Environmental Protection. Please read the permit/license and its attached conditions carefully. You must follow the conditions in the order to satisfy the requirements of law. Any discharge not receiving adequate treatment is in violation of State Law and is subject to enforcement action.

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled "*Appealing a Commissioner's Licensing Decision.*"

The Department would like to make you aware that your monthly Discharge Monitoring Report (DMR) forms may not reflect the revisions in this permitting action for several months after permit issuance, however, you are required to report applicable test results for parameters required by this permitting action that do not appear on the DMR. Please see the attached April 2003 O&M Newsletter article regarding this matter.

If you have any questions regarding the matter, please feel free to call me at (207) 287-6114 or contact me via email at Robert.D.Stratton@maine.gov.

Sincerely,

Robert D. Stratton
Division of Water Quality Management
Bureau of Land and Water Quality

Enc./cc: Jim Sohns (MEDEP); Sandy Lao (USEPA);
Heather Parent (Eaton-Peabody)

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

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

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

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

web site: www.maine.gov/dep

DMR Lag

(reprinted from April 2003 O&M Newsletter)

When the Department renews discharge permits, the parameter limits may change or parameters may be added or deleted. In some cases, it is merely the replacement of the federally issued NPDES permit with a state-issued MEPDES permit that results in different limits. When the new permit is finalized, a copy of the permit is passed to our data entry staff for coding into EPA's Permits Compliance System (PCS) database. PCS was developed in the 1970's and is not user-friendly. Entering or changing parameters can take weeks or even months. This can create a lag between the time your new permit becomes effective and the new permit limits appearing on your DMRs. If you are faced with this, it can create three different situations that have to be dealt with in different ways.

1. If the parameter was included on previous DMRs, but only the limit was changed, there will be a space for the data. Please go ahead and enter it. When the changes are made to PCS, the program will have the data and compare it to the new limit.

2. When a parameter is eliminated from monitoring in your new permit, but there is a delay in changing the DMR, you will have a space on the DMR that needs to be filled. For a parameter that has been eliminated, please enter the space on the DMR for that parameter only with "NODI-9" (No Discharge Indicator Code #9). This code means monitoring is conditional or not required this monitoring period.

3. When your new permit includes parameters for which monitoring was not previously required, and coding has not caught up on the DMRs, there will not be any space on the DMR identified for those parameters. In that case, please fill out an extra sheet of paper with the facility name and permit number, along with all of the information normally required for each parameter (parameter code, data, frequency of analysis, sample type, and number of exceedances). Each data point should be identified as monthly average, weekly average, daily max, etc. and the units of measurement such as mg/L or lb/day. Staple the extra sheet to the DMR so that the extra data stays with the DMR form. Our data entry staff cannot enter the data for the new parameters until the PCS coding catches up. When the PCS coding does catch up, our data entry staff will have the data right at hand to do the entry without having to take the extra time to seek it from your inspector or from you.

EPA is planning significant improvements for the PCS system that will be implemented in the next few years. These improvements should allow us to issue modified permits and DMRs concurrently. Until then we appreciate your assistance and patience in this effort.

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

DEPARTMENT ORDER

IN THE MATTER OF

LAWRENCE RAY FISHING INDUSTRIES	)	MAINE POLLUTANT DISCHARGE
MILBRIDGE, WASHINGTON COUNTY, ME	)	ELIMINATION SYSTEM PERMIT
SEA CUCUMBER PROCESSING PLANT	)	AND
#ME0110272	)	WASTE DISCHARGE LICENSE
#W-007894-5P-B-R **APPROVAL**	)	**RENEWAL**

Pursuant to the provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251, et. seq and Maine Law 38 M.R.S.A., Section 414-A et seq., and applicable regulations the Department of Environmental Protection (Department) has considered the application of LAWRENCE RAY FISHING INDUSTRIES (hereinafter Ray Fishing), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

The applicant has applied for a renewal of Waste Discharge License (WDL) #W-007894-WA-A-N, which was issued on July 12, 1996, for a five-year term. The WDL approved the discharge of a maximum of 15,000 gallons per day (GPD) of treated sea cucumber processing wastewater and facility clean-up water to the Narraguagus River, Class SB, in Milbridge, Maine. The facility actually discharges to an intertidal section of Sawyer Brook, which is directly affected by and connected with an estuarine section of the Narraguagus River. Production at Ray Fishing's Milbridge facility exceeds that which was previously described and utilized in development of the 1996 WDL.

PERMIT SUMMARY

January 12, 2001 – The Department received authorization from the U.S. Environmental Protection Agency (USEPA) to administer the National Pollutant Discharge Elimination System (NPDES) permit program in Maine, excluding areas of special interest to Maine Indian Tribes. On October 30, 2003, after consultation with the U.S. Department of Justice, USEPA extended Maine's NPDES program delegation to all but tribally owned lands. The extent of Maine's delegated authority is under appeal at the time of this permitting action. From this point forward, the program will be referred to as the Maine Pollutant Discharge Elimination System (MEPDES) program and permit #ME0110272 will be utilized as the primary reference number for the Milbridge facility.

This permitting action is similar to the July 12, 1996 WDL in that it is carrying forward:

1. requirements that wastewater discharges only occur between one hour after high tide and two hours before low tide and with a minimum of three feet of water over the outfall pipe;
2. the 15,000 gallons per day daily maximum discharge flow limit;
3. the average and daily maximum best practicable treatment (BPT) based effluent limits for total suspended solids (TSS) and oil and grease (O&G) in pounds per 1,000 pounds (1/2 ton) of production; and
4. the average and daily maximum production reporting requirements.

This permitting action is different from the July 12, 1996 WDL in that it is:

1. requiring that wastewater discharges only occur between October 1 and July 3 each year;
2. eliminating the two-tiered approach for effluent limitations and monitoring requirements and establishing consistent limits and requirements for all production levels, labeled as Outfall #001B;
3. establishing monthly average flow monitoring and reporting requirements;
4. establishing biochemical oxygen demand (BOD) monthly average and daily maximum water quality based limits in pounds per ½ ton of production and pounds per day (lbs/day) and monitoring and reporting requirements in milligrams per liter (mg/L);
5. establishing TSS and O&G monthly average and daily maximum mass limits (lbs/day) based on National Effluent Guideline (NEG) BPT based guidelines and previous average production projections as well as concentration reporting requirements (mg/L);
6. establishing a daily maximum water quality based total residual chlorine concentration limit;
7. revising the pH limit range to 6.0 to 9.0 standard units and establishing a measurement frequency;
8. establishing minimum monitoring frequency and sample type requirements based on Department Best Professional Judgement;
9. requiring a current facility Operation and Maintenance Plan;
10. establishing a schedule of compliance for installation of an effluent pump and a sampling port to provide for better process control and representative wastewater sampling;
11. establishing minimum qualification standards for the wastewater treatment system operator;
12. requiring completion and submittal of supplemental monitoring forms to facilitate tracking of effluent and operational information and trend analysis;
13. requiring that all cook water and clean up water must be discharged in a minimum volume of 5,000-gallons of holding tank wastewater to provide maximum dilution of the waste streams before being discharged;
14. establishing record keeping requirements for disinfecting/sanitizing agents; and
15. establishing requirements for ambient water quality monitoring.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated December 20, 2006 and revised January 29 and February 8, 2007, and subject to the Conditions listed below, the Department makes the following conclusions:

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

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

3. The provisions of the State's antidegradation policy, 38 MRSA Section 464(4)(F), will be met, in that:

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

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

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

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

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

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

ACTION

THEREFORE, the Department APPROVES the above noted application of the LAWRENCE RAY FISHING INDUSTRIES processing facility to discharge sea cucumber processing and facility cleanup wastewater to Sawyer Brook and the Narraguagus River, Class SB, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

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

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

3. This permit expires five (5) years from the date of signature below.

DONE AND DATED AT AUGUSTA, MAINE, THIS 12 DAY OF February, 2007.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____ FOR
David P. Littell, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: August 15, 2001
Date of application acceptance: August 28, 2001

FILED
FEB 20 2007
BOARD OF ENVIRONMENTAL PROT.
State of Maine

Date filed with Board of Environmental Protection _____.

This Order prepared by Robert D. Stratton, BUREAU OF LAND & WATER QUALITY

SPECIAL CONDITIONS
A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. **During the period October 1 through July 3 each year**, the permittee is authorized to discharge treated **sea cucumber processing and facility cleanup wastewater** to Sawyer Brook and the Narraguagus River, Class SB, in Milbridge, Maine from **OUTFALL #001B** **between one hour after high tide and two hours before low tide, with a minimum of three feet of water over the outfall**[1,2]. Such discharges shall be limited and monitored by the permittee as specified below:

Monitoring Parameter	Discharge Limitations and Reporting Requirements				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
	Units as specified		Units as specified			
Flow *[50050]*	Report GPD *[07]*	15,000 GPD *[07]*	---	---	1/Day *[01/01]*	Measure *[MS]*
BOD_5 *[00140]*	14 lbs / ½ TPR[3] *[45]*	26 lbs / ½ TPR[3] *[45]*	Report mg/L *[19]*	Report mg/L *[19]*	1 per 5 Days of Discharging[4] *[01/05]*	Composite[5] *[24]*
BOD_5 *[00310]*	483 lbs/day *[26]*	897 lbs/day *[26]*	---	---	1 per 5 Days of Discharging[4] *[01/05]*	Composite[5] *[24]*
TSS *[00141]*	14 lbs / ½ TPR[3] *[45]*	26 lbs / ½ TPR[3] *[45]*	Report mg/L *[19]*	Report mg/L *[19]*	1 per 5 Days of Discharging[4] *[01/05]*	Composite[5] *[24]*
TSS *[00530]*	483 lbs/day *[26]*	897 lbs/day *[26]*	---	---	1 per 5 Days of Discharging[4] *[01/05]*	Composite[5] *[24]*
Oil & Grease *[00152]*	1.3 lbs / ½ TPR[3] *[45]*	2.1 lbs / ½ TPR[3] *[45]*	Report mg/L *[19]*	Report mg/L *[19]*	1 per 5 Days of Discharging[4] *[01/05]*	Grab *[GR]*
Oil & Grease *[00552]*	45 lbs/day *[26]*	72 lbs/day *[26]*	---	---	1 per 5 Days of Discharging[4] *[01/05]*	Grab *[GR]*
Total Residual Chlorine[6] (TRC) *[50060]*	---	---	---	1.5 mg/L *[19]*	1/Day *[01/01]*	Grab *[GR]*
Production[7] *[00145]*	Report lbs/day *[26]*	Report lbs/day *[26]*	---	---	1/Day *[01/01]*	Measure *[MS]*
pH (Std. Units) *[00400]*	---	---	---	6.0-9.0 S.U. *[12]*	1 per 5 Days of Discharging[4] *[01/05]*	Grab *[GR]*

The italicized numeric values bracketed in the table above and in subsequent text are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports (DMRs). Footnotes are found on Pages 6 and 7.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS , FOOTNOTES:

All 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 unless otherwise approved by the Department.

1. Effluent Monitoring: Effluent values shall be determined through sampling at Outfall #001B, the only authorized facility discharge, following all means of wastewater treatment and in a manner so as to capture conditions representative of wastewater generating processes at the facility. Any change in sampling location must be approved by the Department in writing. Pursuant to Permit Special Condition G, by April 1, 2007, the permittee shall install an effluent pump and sampling port following the wastewater holding tank to provide for better process control and representative wastewater sampling. From the effective date of this permit until these upgrades are completed or until April 1, 2007, whichever occurs sooner, effluent monitoring may be conducted at the existing location prior to the holding tank. From this defined period forward, effluent monitoring shall be conducted so as to provide for representative wastewater monitoring.

2. Operational Discharge Requirements: The discharge shall only occur during the period from October 1 through July 3 each year, between one (1) hour after high tide and two (2) hours before low tide, with a minimum of three feet of water over the end of the outfall pipe. The permittee shall complete and submit supplemental monitoring forms A and B (Permit Attachment A) as outlined in this permitting action.

3. lbs / ½ TPR: Pounds of pollutant per ½ ton (1,000 pounds) of sea cucumber production. See footnote 7.

4. Once per Five Days: Sampling shall be conducted at a minimum frequency of one sample for each five days of processing / discharging. Sampling shall be conducted on periods of less than five days of processing / discharging as necessary to complete and start monitoring periods within calendar months.

5. Composite Samples: The permittee shall collect a minimum of two samples per sampling event and composite all samples collected over a 24-hour period. (i.e., if the permittee discharges twice within a 24-hour period, once per tide event, there shall be a minimum of four samples collected and composited.) The samples shall be representative of the effluent discharge and the samples shall be combined proportional to the flow over the processing time period or a sample shall be continuously collected proportional to the discharge flow over the discharge time period.

6. Total Residual Chlorine – Limitations and monitoring requirements are applicable whenever elemental chlorine or chlorine based compounds are being used and discharged to the receiving water.

SPECIAL CONDITIONS

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

7. Production: Production refers to the pounds of sea cucumbers processed during the day, based on the form as they are delivered to the processing facility. Sea cucumbers that are frozen or shipped in the same form that they are delivered to the plant, without being processed, are not included in the pounds per day of sea cucumbers processed.

B. 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 by 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 by the classification of the receiving waters.

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

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

C. UNAUTHORIZED DISCHARGES:

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from Outfall #001B, the only authorized facility discharge. Discharges of wastewater from any other point source are not authorized under this permit, and shall be reported in accordance with Standard Condition B(5) (*Bypass*) of this permit.

D. NOTIFICATION REQUIREMENT:

In accordance with Standard Condition D, the permittee shall 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.

2. For the purposes of this section, adequate notice shall include information on:

SPECIAL CONDITIONS
D. NOTIFICATION REQUIREMENT (cont'd):

a. The quality or quantity of wastewater introduced to the waste water collection and treatment system; and

b. Any anticipated impact of the change in the quantity or quality of the wastewater to be discharged from the treatment system.

E. MONITORING AND REPORTING:

Monitoring results obtained during the previous month 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 (13^{th}) day of the month or hand-delivered to a Department regional office such that the DMR's are received by the Department on or before the fifteenth (15^{th}) day of the month following the completed reporting period. Pursuant to Department administrative rules (Chap. 2, §3A), the Department will also accept a facsimile copy if followed by receipt of the original document within 5 working days. A signed copy of the DMR and all other reports required herein, shall be submitted to the Department's assigned compliance inspector (unless otherwise specified) at the following address:

Department of Environmental Protection
Bureau of Land and Water Quality
Division of Water Quality Management
106 Hogan Road
Bangor, Maine 04401

F. OPERATION & MAINTENANCE (O&M) PLAN:

On or before August 1, 2007, the permittee shall submit to the Department a current written comprehensive Operation & Maintenance (O&M) Plan *[09699]*. The plan shall provide a systematic approach by which the permittee shall at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.

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 and EPA personnel upon request.

Within 90 days of completion of new and or 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

G. SCHEDULE OF COMPLIANCE:

The Department is establishing a Schedule of Compliance for the following infrastructure upgrades to ensure compliance. The permittee shall adhere to the specific required tasks and deadlines detailed below:

1. **Effluent Equipment and Monitoring: On or before April 1, 2007,** the permittee shall install an effluent pump and sampling port following the wastewater holding tank to provide for better process control and representative wastewater sampling. *[51799]* From the effective date of this permit until these upgrades are completed or until April 1, 2007, whichever occurs sooner, effluent monitoring may be conducted at the existing location prior to the holding tank. From this defined period forward, effluent monitoring shall be conducted so as to provide for representative wastewater monitoring. *[81899]*

H. TREATMENT PLANT OPERATOR

The wastewater treatment system shall be operated at all times by a person(s) with sufficient knowledge and expertise in the operation of the wastewater treatment system to ensure proper functioning of the system and compliance with all permitting requirements.

I. DISCHARGE CONDITIONS

The discharge of wastewater shall be regulated such that **the discharge shall only occur between one (1) hour after high tide and two (2) hours before low tide. Further, discharge shall only occur when there is a minimum of three (3) feet of water over the end of the discharge pipe.** The time of high tide, low tide, start of discharge, completion of discharge, and gallons of wastewater discharged, as well as other information requested, shall be recorded on supplemental monitoring forms A and B (Permit Attachment A) and submitted with the monthly DMR. The permittee shall also maintain completed copies of both forms on premises, available to Department personnel at all times during normal working hours, for a period of at least three (3) years.

All cook water and clean up water must be discharged in a minimum volume of 5,000-gallons of holding tank wastewater to provide maximum dilution of the waste streams before being discharged.

The discharge is allowed from October 1 through July 3 and prohibited from July 4 through September 30 each year.

SPECIAL CONDITIONS

J. DISINFECTING/SANITIZING AGENTS:

Records of all disinfectants and/or sanitizing agents used that have the potential to enter the waste stream or receiving water, their volumes and concentrations as used and concentrations at the point of discharge, shall be maintained at the facility for a period of three years. This permitting action only authorizes the discharge of those materials applied for, evaluated by the Department, and either regulated or determined to be deminimus in this permitting action or in subsequent Department actions.

K. AMBIENT WATER QUALITY MONITORING:

In light of ongoing concerns with the effects of Ray Fishing's discharge on water quality in Sawyer Brook and the Narraguagus River and other related factors detailed herein, this permitting action requires that the permittee conduct ambient water quality monitoring simultaneously with effluent discharging and monitoring. Ambient studies are being required to definitively determine if the receiving water is attaining its classification standards and designated uses, if Ray Fishing's wastewater discharges cause or contribute to non-attainment conditions, and to provide for modifications to effluent limitations, monitoring and operational requirements to ensure attainment.

On or before six months following the effective date of this permit, Ray Fishing shall submit an ambient water quality monitoring (AWQM) plan for Sawyer Brook and the Narraguagus River to the Department for review and approval *[34099]*. The AWQM plan shall include a scope of work and schedule for the AWQM program, proposed monitoring locations and maps, methods and materials, and personnel to conduct monitoring and their qualifications. The Department requires that monitoring be conducted at a minimum of three locations: one reference location on the Narraguagus River upstream of the discharge, one location after full effluent mixing, and one location further downstream positioned to exhibit the full effects of the discharge. The Department requires that the permittee conduct a dye study of the effluent mixing characteristics in the receiving water to provide for appropriate siting of the monitoring locations, if such study can not be conducted by USEPA, as is planned. Ambient monitoring shall measure at a minimum: dissolved oxygen (mg/L and percent saturation), salinity, temperature, and total suspended solids (mg/L and pounds) and shall be conducted in profiles from the water surface to the river bottom with depths indicated. The Department will review and within 30-days of submittal shall either approve or require modification to the AWQM program plan. AWQM shall commence following Department approval of the AWQM program.

Two times per year during November and June, beginning in November 2007 and extending through the life of the permit / WDL, the permittee shall conduct AWQM according to a Department approved monitoring plan. Results shall be reported to the Department in a supplemental report accompanying the appropriate monthly DMRs.

On or before August 15 each year, the permittee shall submit an annual AWQM program report to include AWQM program data, corresponding effluent data, interpretations of results, and recommendations for further study *[90199, 90299, 90399, 90499, 90599]*.

SPECIAL CONDITIONS
K. AMBIENT WATER QUALITY MONITORING (cont'd)

The Department will review each annual report. If the receiving water is determined by the Department to be meeting criteria, standards, and designated uses for its assigned water quality class under representative discharge and ambient scenarios, or to not be attaining its classification standards and designated uses, the Department will reopen the permit pursuant to Permit Special Condition L, to modify AWQM program or permit requirements as appropriate.

L. REOPENING OF PERMIT FOR MODIFICATIONS

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

M. 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 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

SUPPLEMENTAL MONITORING FORMS

Note: Forms A and B are required to be completed and submitted monthly per Permit Special Condition E and Special Condition I.

Supplemental Monitoring Form A. One copy to be submitted monthly with the DMR, one copy to be maintained on site for a minimum of three years. [1,2,3,4]

Ray Fishing Industries, Milbridge Month _____ Year _____

DATE	FLOW	BOD_5			TSS			O&G			Production
	(GPD)	(mg/L)	(lbs/day)	(lbs/ ½ TPR)	(mg/L)	(lbs/day)	(lbs/ ½ TPR)	(mg/L)	(lbs/day)	(lbs/ ½TPR)	(lbs/day)
1.											
2.											
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											
11.											
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25.											
26.											
27.											
28.											
29.											
30.											
31.											
AVE.											

[1] Record production and flow daily. [2] Production in pounds per day. (The weight of live product as delivered to the plant for processing. Product delivered to the plant and frozen or shipped whole is not included in the days production.).

[3] lbs/day = concentration x 8.34 x flow (mg). [4] lbs / ½ TPR = lbs/day ÷ production lbs/1000.

Signature _____ Date _____

<u>Supplemental Monitoring Form B</u>. One copy to be submitted monthly with the DMR, one copy to be maintained on site for a minimum of three years. Two sets of columns for discharge and tidal information are provided for those days in which there are two high tides, making a second discharge possible.

Ray Fishing Industries, Milbridge Month _____ Year _____

Date	Discharge #1		#1 Time of tide		#1 Gallons discharged	Discharge #2		#2 Time of tide		#2 Gallons discharged	Total Gallons discharged
	Start time[1,2]	**End time[1,2]**	**High**	**Low**		**Start time[1,2]**	**End time[1,2]**	**High**	**Low**		
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
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24											
25											
26											
27											
28											
29											
30											
31											
---	---	---	---	---	---	---	---	---	---	**TOTAL:**	
---	---	---	---	---	---	---	---	---	---	**AVG.:**	

[1] Record daily when discharging. [2] Record in "24 hour time" or "military" time, the time of the tides from tide tables adjusted for the area.

Signature _____ Date _____

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: December 20, 2006
Revised: January 29, February 8, 2007

MEPDES PERMIT NUMBER: # ME0110272
WASTE DISCHARGE LICENSE: # W-007894-5P-B-R

NAME AND ADDRESS OF APPLICANT:

LAWRENCE RAY FISHING INDUSTRIES
54 Wyman Road
Milbridge, Maine 04658

COUNTY: WASHINGTON

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

LAWRENCE RAY FISHING INDUSTRIES
54 Wyman Road
Milbridge, Maine 04658

RECEIVING WATER / CLASSIFICATION: Sawyer Brook, Narraguagus River, Class SB

COGNIZANT OFFICIAL AND TELEPHONE NUMBER:

Mr. Lawrence Ray; Mrs. Drusilla Ray, (207) 546-7056 / 546-0930

1. APPLICATION SUMMARY

The applicant has applied for a renewal of Waste Discharge License (WDL) #W-007894-WA-A-N, which was issued on July 12, 1996, for a five-year term. The WDL approved the discharge of a maximum of 15,000 gallons per day (GPD) of treated sea cucumber processing wastewater and facility clean-up water to the Narraguagus River, Class SB, in Milbridge, Maine. The facility actually-discharges to an intertidal section of Sawyer Brook, which is directly affected by and connected with an estuarine section of the Narraguagus River. Production at Ray Fishing's Milbridge facility exceeds that which was previously described and utilized in development of the 1996 WDL.

2. PERMIT SUMMARY

a. Regulatory - January 12, 2001 – The Department received authorization from the U.S. Environmental Protection Agency (USEPA) to administer the National Pollutant Discharge Elimination System (NPDES) permit program in Maine, excluding areas of special interest to Maine Indian Tribes. On October 30, 2003, after consultation with the U.S. Department of Justice, USEPA extended Maine's NPDES program delegation to all but tribally owned lands. The extent of Maine's delegated authority is under appeal at the time of this permitting action. From this point forward, the program will be referred to as the Maine Pollutant Discharge Elimination System (MEPDES) program and permit #ME0110272 will be utilized as the primary reference number for the Machiasport facility. Any previous NPDES permits issued by the EPA will be replaced by the MEPDES permit upon issuance. Once replaced, all terms and conditions of any NPDES permits are null and void.

b. Terms and conditions – This permitting action is similar to the July 12, 1996 WDL in that it is carrying forward:

1. requirements that wastewater discharges only occur between one hour after high tide and two hours before low tide and with a minimum of three feet of water over the outfall pipe;
2. the 15,000 gallons per day daily maximum discharge flow limit;
3. the average and daily maximum best practicable treatment (BPT) based effluent limits for total suspended solids (TSS) and oil and grease (O&G) in pounds per 1,000 pounds (1/2 ton) of production; and
4. the average and daily maximum production reporting requirements.

This permitting action is different from the July 12, 1996 WDL in that it is:

1. requiring that wastewater discharges only occur between October 1 and July 3 each year;
2. eliminating the two-tiered approach for effluent limitations and monitoring requirements and establishing consistent limits and requirements for all production levels, labeled as Outfall #001B;
3. establishing monthly average flow monitoring and reporting requirements;
4. establishing biochemical oxygen demand (BOD) monthly average and daily maximum water quality based limits in pounds per ½ ton of production and pounds per day (lbs/day) and monitoring and reporting requirements in milligrams per liter (mg/L);
5. establishing TSS and O&G monthly average and daily maximum mass limits (lbs/day) based on National Effluent Guideline (NEG) BPT based guidelines and previous average production projections as well as concentration reporting requirements (mg/L);
6. establishing a daily maximum water quality based total residual chlorine concentration limit;
7. revising the pH limit range to 6.0 to 9.0 standard units and establishing a measurement frequency;
8. establishing minimum monitoring frequency and sample type requirements based on Department Best Professional Judgement;
9. requiring a current facility Operation and Maintenance Plan;

10. establishing a schedule of compliance for installation of an effluent pump and a sampling port to provide for better process control and representative wastewater sampling;
11. establishing minimum qualification standards for the wastewater treatment system operator;
12. requiring completion and submittal of supplemental monitoring forms to facilitate tracking of effluent and operational information and trend analysis;
13. requiring that all cook water and clean up water must be discharged in a minimum volume of 5,000-gallons of holding tank wastewater to provide maximum dilution of the waste streams before being discharged;
14. establishing record keeping requirements for disinfecting/sanitizing agents; and
15. establishing requirements for ambient water quality monitoring.

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

July 12, 1996 - The Maine Department of Environmental Protection issued Waste Discharge License (WDL) #W-7894-WA-A-N / Permit Compliance System tracking number #MEU507894 to Lawrence Ray Fishing Industries for the discharge of up to 15,000 gallons per day of treated sea cucumber processing wastewater and facility clean-up water to the Narraguagus River, Class SB, in Milbridge. The license was issued for a five-year term.

August 15, 2001 - The Department received an application from Lawrence Ray Fishing Industries for renewal of its WDL for the discharge of 15,000 gallons per day of treated sea cucumber processing wastewater and facility clean-up water from its Milbridge facility. The application was assigned WDL #W-7894-5P-B-R and NPDES / MEPDES permit #ME0110272.

July 11, 2003 – In a letter, the Department informed Ray Fishing that on July 1, 2003, Department staff measured and documented conditions indicating non-attainment of water quality classification standards in the receiving water due to Ray Fishing's wastewater discharge. Further, the Department noted that Ray Fishing's discharge was in violation of the WDL's operational discharge requirements. Ray Fishing was required to conduct ambient water quality investigations for comparison with effluent data to better determine causative or contributory effects on ambient conditions from Ray Fishing's discharge and assimilative capacity. These and other compliance issues were addressed in a consent order in the Fourth District Court of Southern Washington County, finalized September 22, 2005.

December 3, 2003 – On behalf of the licensee, CES Inc. submitted the Ambient River Water Quality Study Final Report for Lawrence Ray Fishing Industries. Additional effluent sample results were on submitted February 9, 2004.

d. Source Description/ Facility Operation:

The Ray Fishing Milbridge facility obtains sea cucumbers from local fishermen for processing and sale as a commercial food product. Sea cucumbers may be harvested in Maine between October 1 and June 30 each year, while they are prohibited from being harvested between July 1 and September 30. Processing of sea cucumbers harvested during the legal season may extend until July 3 due to transportation and handling times. Most sea cucumbers are harvested during the winter months when much of the lobster fishing gear has been removed from the water.

Sea cucumbers are typically processed by one of two methods. In the first method, which is reportedly used by Ray Fishing, the ends of the raw sea cucumbers are cut off and the carcasses are boiled by immersion into boiling water in two 500-gallon capacity cook tanks. After boiling, the entrails are removed, the carcasses are salted, and then placed on trays to dry. An alternate processing method involves removal of the entrails and strips of meat at a different stage in the process. Wastewater is generated during the processing of sea cucumbers and from cleaning the equipment and facility. Source water is obtained from an on-site well. Ray Fishing plans to conduct trial processing of hagfish and other seafood products, but will adhere to all limitations and requirements in this permitting action.

The Ray Fishing Milbridge facility discharges to an intertidal section of Sawyer Brook, which is directly affected by and connected to an estuarine portion of the Narraguagus River, Class SB. Wastewater and solid waste materials are handled as described below.

e. Wastewater Treatment:

All wastewater generated during boiling, rinsing, and facility clean-up is routed to a 1,200-gallon sump. Wastewater is then pumped through a #30-mesh rotostrainer, which discharges into a 15,000-gallon concrete holding tank. Wastewater is held in the holding tank until discharge between 1-hour after high tide and 2-hours before low tide to provide for discharge on an outgoing tide. Outfall #001B is a six-inch diameter open pipe that outlets to the center of Sawyer Brook. During the tidally timed discharge period, the outfall is located in water depths ranging from a minimum of 3-feet to approximately 7-feet.

The sea cucumber ends and entrails removed during processing, materials recovered during facility clean-up, and solid matter captured on the #30-mesh screen are sent to a compost facility for disposal. Sanitary wastewater is disposed of through an approved on-site septic system. Use of agents for therapeutic and disinfecting/sanitizing purposes are addressed in subsequent Fact Sheet sections titled accordingly.

3. CONDITIONS OF PERMITS

Maine law, 38 M.R.S.A. Section 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, 38 M.R.S.A., Section 420 and Department rule 06-096 CMR Chapter 530, *Surface Water Toxics Control Program,* require the regulation of toxic substances not to exceed levels set forth in Department rule 06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, 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:

Maine law, 38 M.R.S.A., Section 469 classifies the estuarine and marine waters of Milbridge at the point of discharge as a Class SB water. Maine law, 38 M.R.S.A., Section 465-B.2, describes the standards for Class SB waters.

5. RECEIVING WATER QUALITY CONDITIONS:

The State of Maine 2004 *Integrated Water Quality Monitoring and Assessment Report* (DEPLW0665), prepared pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act includes the receiving water in the designation *Narraguagus River, Milbridge* (Waterbody ID 705-1, DMR Area 53) listed in Category 2, Estuarine and Marine Waters Attaining Some Designated Uses – Insufficient Information for Other Uses. The listing identifies an 821-acre segment of Class SB waters listed as being monitored as of the time of publication of the report and with a comment noting the presence of overboard wastewater discharges within the segment area.

The Maine Department of Marine Resources (MeDMR) assesses information on shellfish growing areas to ensure that shellfish harvested are safe for consumption. The MeDMR has authority to close shellfish harvesting areas wherever there is a pollution source, a potential pollution threat, or poor water quality. The MeDMR traditionally closes shellfish harvesting areas if there are known sources of discharges with unacceptable bacteria levels (in-stream thresholds established in the National Shellfish Sanitation Program) or maintains shellfish harvesting closure areas due to lack of updated information regarding ambient water quality conditions. In addition, the MeDMR prohibits shellfish harvesting in the immediate vicinity of all wastewater treatment outfall pipes as a precautionary measure in the event of a failure in the treatment plant's disinfection system. Pursuant to MeDMR Regulation 95.09 B, Closed Area No. 53, Narraguagus River, Milbridge, as of June 3, 2005, "*because of pollution, it shall be unlawful to dig, take or possess any clams, quahogs, oysters or mussels taken from the shores, flats and waters of the Narraguagus River, in the Town of Milbridge, Washington County, inside (north and west) of a line beginning at Long Point, running north*

to the southwestern tip of Ficketts Point" (see Fact Sheet Attachment B). The 2005 regulation repealed and replaced MeDMR Regulation 95.09 B promulgated on December 18, 2003. The Department has no information that Ray Fishing causes or contributes to non-attainment conditions in the receiving water listed in the 303(d)/305(b) report or to the closure of the shellfish harvesting area. However, on July 1, 2003, the Department measured and documented non-attainment of water quality classification standards in the receiving water due to Ray Fishing's wastewater discharge. Pursuant to Department requirements, Ray Fishing conducted ambient water quality investigations in 2003 to yield additional and more in-depth data necessary for re-licensing the Ray Fishing discharge. The investigations yielded information on the receiving water, but did not provide information on any causative or contributory effects from Ray Fishing due to minimal simultaneous effluent data. Therefore, this permitting action is being developed as to ensure attainment of water quality classification standards and designated uses.

If it is determined in the future that Ray Fishing causes or contributes to non-attainment conditions in the receiving water, this permitting action may be reopened pursuant to Permit Special Condition L and effluent limitations, monitoring and operational requirements, and/or wastewater treatment requirements adjusted accordingly.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS:

Pursuant to Maine Law (38 M.R.S.A., §414-A.1), the Department shall only authorize discharges to Maine waters when those discharges, either by themselves or in combination with other discharges, "*will not lower the quality of any classified body of water below such classification*". *Further, "the discharge will be subject to effluent limitations that require application of the best practicable treatment". "Best practicable treatment* (BPT) *means the methods of reduction, treatment, control and handling of pollutants, including process methods, and the application of best conventional pollutant control technology or best available technology economically available, for a category or class of discharge sources that the department determines are best calculated to protect and improve the quality of the receiving water and that are consistent with the requirements of the Federal Water Pollution Control Act" (40 CFR). "If no applicable standards exist for a specific activity or discharge, the department must establish limits on a case-by-case basis using best professional judgement...*" (BPJ) considering "*...the existing state of technology, the effectiveness of the available alternatives for control of the type of discharge and the economic feasibility of such alternatives...*". Pursuant to 38 M.R.S.A, §414-A.1 and §464.4, the Department regulates wastewater discharges through establishment of effluent limitations and monitoring requirements that are protective of Maine waters.

The Code of Federal Regulations Title 40, Part 408 references standards for canned and preserved seafood processing, but not for sea cucumber processing. Therefore, using best professional judgement (BPJ), the Department established Total Suspended Solids (TSS) and Oil and Grease (O&G) license limits in WDL #W007894-WA-A-N issued July 12, 1996 for this sea cucumber processing facility, based on 40 CFR subpart AG – Abalone Processing Subcategory § 408.335. Those limits have been the effluent standards for sea cucumber

licenses/permits issued since and are being utilized in this permit. This permitting action is eliminating the previous two-tiered production based system for effluent limits and monitoring requirements in favor of a single set of standards for all production levels as the facility does not discharge at production levels below the lower 1,000-lbs/day level.

The 1996 WDL was developed based on a maximum wastewater discharge of 15,000 gallons per day (GPD), a monthly average level of production of 34,500 pounds of sea cucumbers per day, and a daily maximum level of production of 52,500 pounds per day. The permittee's 2001 renewal application indicated equivalent flow and production values. In a July 11, 2003 letter, the Department documented that Ray Fishing had exceeded its monthly average production level predictions in each year from 1999 – 2003 and had exceeded its daily maximum production level predictions in 2000, 2002, and 2003, based on annual averages of values reported on the facility's DMRs. The Department determined that 2003 monthly average and daily maximum production levels were 261% and 239% higher respectively, than the levels included in the facility's application and upon which the WDL was issued. Also in 2003, the Department measured and documented non-attainment of water quality classification standards in the receiving water due to Ray Fishing's wastewater discharge. Ray Fishing was required to conduct ambient water quality investigations for comparison with effluent data to better determine causative or contributory effects on ambient conditions from Ray Fishing's discharge and assimilative capacity. Water quality investigations were inconclusive due to only minimal simultaneous ambient and effluent data. Therefore, this permitting action is being developed as to ensure attainment of water quality classification standards and designated uses. This permitting action does not limit production. However, effluent limitations for TSS and Oil and Grease are being developed based on the NEGs' technology based limits and the previous monthly average production level described of 34,500 pounds of sea cucumbers per day. Water quality based effluent limitations for BOD are equivalent to the TSS limitations. Thus, if Ray Fishing is to operate at higher production levels, it will likely need to incorporate more stringent operations and maintenance practices and wastewater treatment practices and infrastructure to achieve the effluent limitations established. This permitting action is carrying forward requirements that limit effluent discharges to periods of outgoing tides and when there is a minimum of three feet of water over the outfall pipe. It revises the previous authorization to discharge year round, limiting discharges to between October 1 and June 30 each year.

a. Flow: The previous licensing action established a daily maximum flow reporting requirement when processing less than 1,000 pounds of sea cucumbers per day and a daily maximum discharge limit of 15,000 gallons per day (GPD) when processing 1,000 pounds or more of sea cucumbers per day. In this permitting action, the daily maximum discharge limit of 15,000 GPD is being established for all production levels.

   The previous licensing action established monitoring frequency requirements of once per five processing days. This permitting action requires daily measurement of discharge flow and reporting of the monthly average and daily maximum gallons of wastewater discharged, consistent with Department guidelines for wastewater treatment facility discharges.

b. Dilution Factors: Department rule, 06-096 CMR Chapter 530 Section 4.A.2.a, *Surface Water Toxics Control Program*, states that, *"For discharges to the ocean, dilution must be calculated as near-field or initial dilution, or that dilution available as the effluent plume rises from the point of discharge to its trapping level, at mean low water level and slack tide for the acute exposure analysis, and at mean tide for the chronic exposure analysis using appropriate models determined by the Department such as MERGE, CORMIX or another predictive model."* Based on the location and configuration of the Ray Fishing discharge pipe, the physical properties and flow patterns of Sawyer Brook and the Narraguagus River, and discharge restrictions contained in this permitting action, the Department has determined the dilution factors for Ray Fishing's effluent discharge to be as follow:

Acute = 113:1 Chronic = 133:1 Harmonic mean[1] = 399:1

Footnote:

(1) The harmonic mean dilution factor is approximated by multiplying the chronic dilution factor by three (3). This multiplying factor is based on guidelines for estimation of human health dilution presented in the USEPA publication *"Technical Support Document for Water Quality-Based Toxics Control"* (Office of Water; EPA/505/2-90-001, page 88), and represents an estimation of harmonic mean flow on which human health dilutions are based in a riverine 7Q10 flow situation.

c. Production: This permitting action carries forward the requirement to report the average and maximum sea cucumber production at the facility in pounds per day. Production refers to the pounds of sea cucumbers processed during the day, based on the form as they are delivered to the processing facility. Sea cucumbers that are frozen or shipped in the same form that they are delivered to the plant, without being processed, are not included in the pounds per day of sea cucumbers processed. This requirement is being carried forward as a means to enable both the Department and the permittee to evaluate management practices at the facility and trends in effluent quality and receiving water impacts.

d. Biochemical Oxygen Demand (BOD): The previous licensing action contained reporting requirements for the monthly average and daily maximum mass of BOD discharged. When processing less than 1,000 pounds of sea cucumbers per day, units were not specified, but can be assumed to have been pounds per day. When processing 1,000 pounds or more of sea cucumbers per day, units were specified as pounds per 1,000 pounds of sea cucumbers processed. Monitoring requirements consisted of a grab sample collected once per 5 days of processing.

This permitting action is eliminating the previous two-tiered production based system for effluent limits and monitoring requirements in favor of a single set of standards for all production levels. This permitting action is establishing effluent limitations for the

monthly average and daily maximum BOD concentration and mass discharged in pounds per ½ ton of production and pounds per day based on Department BPJ of water quality based limits necessary to attain the receiving water quality classification standards, as well as reporting requirements for concentration in mg/L. This is being done due to past observed discharge related ambient water quality problems, reports of significantly greater levels of production at the facility than previously predicted, and results of wastewater sampling conducted by the permittee that indicates effluent BOD levels of up to 20,000 mg/L. BOD numerical limits are being established equivalent to those for Total Suspended Solids (TSS) (Fact Sheet Section 6.e) because of roughly equivalent effluent results expected from standard means of wastewater treatment and because of the related nature of the pollutants for many types of discharges. The previous licensing action established monitoring frequency requirements of once per five processing days. This permitting action establishes requirements for compositing grab samples as outlined in Permit Special Condition A, Footnote 5, at a minimum frequency of one sample for each five days of processing / discharging. Sampling shall be conducted on periods of less than five days of processing / discharging as necessary to complete and start monitoring periods within calendar months. These requirements are based on the Department's BPJ of monitoring frequencies and types necessary to more accurately characterize facility effluent conditions. At this time, the Department does not have information on the receiving water's capacity to assimilate the effluent BOD levels anticipated without adverse effects. If ambient water quality monitoring required by this permitting action demonstrates that the receiving water can do so and attain its water quality classification standards and designated uses, the facility discharge permit may be reopened and effluent limits, monitoring and operational requirements adjusted as appropriate, pursuant to Permit Special Condition L, *Reopening of Permit For Modifications*, and Fact Sheet Section 7, *Anti-Backsliding*.

e. Total Suspended Solids (TSS): This permitting action establishes TSS mass limits based on daily sea cucumber production. Pursuant to the NEGs and as established in the previous licensing action, this permit establishes technology based limits of 14 pounds per half ton of production (lb/½ TPR) (monthly average) and 26 lbs/½ TPR (daily maximum). Pursuant to USEPA guidance for development of NEG based effluent limits and based on past observed discharge related ambient water quality problems, these rates are being multiplied by the permittee's previous production projection of a monthly average of 34,500-pounds of sea cucumbers per day. This method yields conventional TSS mass limits of 483 lbs/day (monthly average) and 897 lbs/day (daily maximum), as shown below. If Ray Fishing is to operate at higher production levels, it will likely need to incorporate more stringent operations and maintenance practices and wastewater treatment practices and infrastructure to achieve the effluent limitations established. The mass limits are expressed as lbs/½ TPR to be consistent with the units developed for the permit compliance system (PCS), which is used to track compliance. This permitting action also requires reporting of TSS effluent concentrations in mg/L.

Following are examples of the mass limit calculations established in the permit.

Monthly average effluent limitation: 14 lbs/½ TPR
Daily maximum effluent limitation: 26 lbs/½ TPR
Average daily production is 34,500 lbs.

Monthly average mass limit: 34,500 lbs x 14 lbs/1,000 lbs = 483 lbs/day
Daily maximum mass limit: 34,500 lbs x 26 lbs/1,000 lbs = 897 lbs/day

The previous licensing action established monitoring frequency requirements of once per five processing days. This permitting action establishes requirements for compositing grab samples as outlined in Permit Special Condition A, Footnote 5, at a minimum frequency of one sample for each five days of processing / discharging. Sampling shall be conducted on periods of less than five days of processing / discharging as necessary to complete and start monitoring periods within calendar months. These requirements are based on the Department's BPJ of monitoring frequencies and types necessary to more accurately characterize facility effluent conditions. As described in Fact Sheet Section 6.d, equivalent limitations are being established as water quality based limits for effluent BOD.

f. Oil & Grease (O&G): This permitting action establishes O&G mass limits based on daily sea cucumber production. Pursuant to the NEGs and as established in the previous licensing action, this permit establishes technology based limits of 1.3 pounds per half ton of production (lb/½ TPR) (monthly average) and 2.1 lbs/½ TPR (daily maximum). Pursuant to USEPA guidance for development of NEG based effluent limits and based on past observed discharge related ambient water quality problems, these rates are being multiplied by the permittee's previous production projection of a monthly average of 34,500-pounds of sea cucumbers per day. This method yields conventional O&G mass limits of 45 lbs/day (monthly average) and 72 lbs/day (daily maximum), as shown below. If Ray Fishing is to operate at higher production levels, it will likely need to incorporate more stringent operations and maintenance practices and wastewater treatment practices and infrastructure to achieve the effluent limitations established. The mass limits are expressed as lbs/½ TPR to be consistent with the units developed for the PCS system, which is used to track compliance. This permitting action also requires reporting of O&G effluent concentrations in mg/L.

Following are examples of the mass limit calculations established in the permit.

Monthly average effluent limitation: 1.3 lbs/½ TPR
Daily maximum effluent limitation: 2.1 lbs/½ TPR
Average daily production is 34,500 lbs.

Monthly average mass limit: 34,500 lbs x 1.3 lbs/1,000 lbs = 45 lbs/day
Daily maximum mass limit: 34,500 lbs x 2.1 lbs/1,000 lbs = 72 lbs/day

The previous licensing action established monitoring frequency requirements of once per five processing days. This permitting action establishes requirements for compositing grab samples as outlined in Permit Special Condition A, Footnote 5, at a minimum

frequency of one sample for each five days of processing / discharging. Sampling shall be conducted on periods of less than five days of processing / discharging as necessary to complete and start monitoring periods within calendar months. These requirements are based on the Department's BPJ of monitoring frequencies and types necessary to more accurately characterize facility effluent conditions.

g. Total Residual Chlorine (TRC): Limits on TRC are specified to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. With anticipated facility flows as described above, end-of-pipe water quality based thresholds for TRC may be calculated as follows:

Acute (a) Criterion	Chronic (c) Criterion	Dilution Factors	Calculated Acute Limit	Calculated Chronic Limit
0.013 mg/L	0.0075 mg/L	113:1 (a) 133:1 (c)	1.5 mg/L	1.0 mg/L

Since Ray Fishing is only permitted to discharge effluent on an intermittent basis between 1-hour after high tide and 2-hours before low tide, this permitting action is establishing the acute water quality based limit of 1.5 mg/L only.

The permittee reports that chlorine and/or chlorine based products are not used during the processing of the sea cucumbers, but are used for cleaning. The permittee indicates that it uses approximately one-half gallon of household bleach (Chlorox) in facility and equipment clean-up and that cleaning waters are discharged to the receiving water with the facility wastewater. Household bleach typically contains approximately 5.5-6.0% available chlorine. Using 0.5-gallons of bleach X 0.06 (6.0%) = 0.03-gallons chlorine / 5,000-gallons of wastewater in the facility wastewater holding tank (minimum discharge volume) for dilution = 6 parts per million or 6 mg/L chlorine. As this projected discharge level significantly exceeds the water quality based limit, the permittee will need to explore and potentially modify its operational practices to ensure compliance with the effluent limitation.

The sampling type and minimum monitoring frequency of one grab sample per discharge day are being established based on the Department's BPJ of monitoring types and frequencies necessary to ensure that ambient water quality standards are maintained and to more accurately characterize facility effluent conditions. It should be noted that the above calculation is purely mathematical and does not account for effects from the wastewater in the holding tank. The Department anticipates that effluent chlorine will be substantially lower than the calculated value due to interactions with the facility's BOD-rich wastewater. However, accurate effluent data is not available at this time. Depending on the results of accurate sampling under representative conditions in the future made possible by the requirements in Permit Special Condition G and pursuant to requests by the permittee, the Department will re-evaluate and modify monitoring requirements as appropriate.

h. pH: The previous licensing action contained the requirement, "*the pH shall not be less than 6.0 or greater than 8.5 at any time*". Monitoring requirements consisted of grab samples with no monitoring frequency specified. This permitting action is revising the pH range limitation to 6.0 to 9.0 standard units, based on 40 CFR subpart AG – Abalone Processing Subcategory §408.335 and consistent with pH limits established for other similar facilities. This permitting action establishes requirements for grab sampling at a minimum frequency of one sample for each five days of processing / discharging. Sampling shall be conducted on periods of less than five days of processing / discharging as necessary to complete and start monitoring periods within calendar months. These requirements are based on the Department's BPJ of monitoring frequencies and types necessary to more accurately characterize facility effluent conditions.

i. Temperature: The Department regulation relating to tidal water thermal discharges, Chapter 582 states, "*No discharge of pollutants shall cause the monthly mean of the daily maximum ambient temperatures in any tidal body of water, as measured outside the mixing zone, to be raised more than 4 degrees Fahrenheit, nor more than 1.5 degrees Fahrenheit from June 1 to September 1. In no event shall any discharge cause the temperature of any tidal waters to exceed 85 Fahrenheit at any point outside a mixing zone established by the board.*"

The facility discharges approximately 300 gallons of sea cucumber cooking water once per day at the end of the processing day or as tides allow, pursuant to discharge restrictions contained in this permit. In this permitting action, the Department requires that all processing, clean-up, and cooking wastewaters be discharged together to provide for maximum dilution of wastewater in the receiving water. The potential ambient temperature effects can be calculated as follows:

Assume 212°F cook water and 45°F process and cleaning water
300 gallons x 212°F + 4,700 gallons x 45°F = 5,000 gallons x "X"
"X" = 55°F. 55°F-45°F=10°F change prior to mixing.
With a dilution of 113:1, the post-mixing temperature change = 0.09°F

The Department assumes a 45°F water temperature for the receiving water during the month of June. Presently, the sea cucumber harvesting season in Maine is closed from July 1 through September 30. This permitting action prohibits Ray Fishing from discharging wastewater during the period of July 4 through September 30, providing for processing of late season harvests. Considering this as well as the regulations cited above, June constitutes the month in which temperature is of most concern. In this calculation, the Department utilized a required minimum discharge volume of 5,000-gallons and the dilution provided by the current outfall location and structure to calculate a conservative value. Based on these calculations, the discharge of the 300 gallons of sea cucumber cooking water will not violate the Department temperature standards if it is discharged with 5,000-gallons of processing and clean-up wastewater. Based on discharge restrictions contained in this permit and the calculations above, this permitting action does not require monitoring of effluent temperature.

7. ANTI-BACKSLIDING

Federal regulation 40 CFR, §122(l) and Department rules Chapter 523.5(1) contain the criteria for what is often referred to as the anti-backsliding provisions of the Federal Water Pollution Control Act (Clean Water Act). In general, the regulation states that except for provisions specified therein, effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards or conditions in the previous permit. Allowable exceptions to the anti-backsliding provisions include when:

(1) material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation and

(2) information is available which was not available at the time of the permit issuance (other than revised regulations, guidance or test methods) and which would justify the application of less stringent effluent limitations at the time of permit issuance.

This permitting action revisits previously established effluent limitations and monitoring requirements for all pollutants regulated. The rationale for these actions is contained in Fact Sheet Section 6, *Effluent Limitations & Monitoring Requirements*. The Department believes that these actions are consistent with the anti-backsliding provisions.

8. ANTI-DEGRADATION

Maine's anti-degradation policy is included in 38 M.R.S.A., Section 464(4)(F) and addressed in the *Conclusions* section of this permit. Pursuant to the policy, where a new or increased discharge is proposed, the Department shall determine whether the discharge will result in a significant lowering of existing water quality. Increased discharge means a discharge that would add one or more new pollutants to an existing effluent, increase existing levels of pollutants in an effluent, or cause an effluent to exceed one or more of its current licensed discharge flow or effluent limits, after the application of applicable best practicable treatment technology. As revisions to previous effluent limitations for some pollutants may appear less stringent, the Department is addressing the implications under the anti-degradation policy.

This permitting action revisits previously established effluent limitations and monitoring requirements for all pollutants regulated. The rationale for these actions is contained in Fact Sheet Section 6, *Effluent Limitations & Monitoring Requirements*. Based on this information, requirements contained in Permit Special Condition I, *Discharge Conditions*, Fact Sheet Section 10, *Ambient Water Quality Monitoring*, and as addressed in Fact Sheet Section 11, *Discharge Impact on Receiving Water Quality*, the Department does not anticipate that the discharge will result in a significant lowering of existing water quality and therefore does not consider the anti-degradation policy to be of issue.

9. DISINFECTING/SANITIZING AGENTS:

This permitting action requires Ray Fishing to maintain records of all disinfectants and/or sanitizing agents used that have the potential to enter the waste stream or receiving water, their volumes and concentrations as used and concentrations at the point of discharge, at the facility for a period of three years. This permitting action only authorizes the discharge of those materials applied for, evaluated by the Department, and either regulated or determined to be deminimus in this permitting action or in subsequent Department actions. The discharges of any other agents or waste products not specifically included in this permitting action are considered unauthorized discharges pursuant to Permit Special Condition C.

In its application, the permittee indicated that it uses approximately one-half gallon of household bleach (Chlorox) in facility and equipment clean-up and that cleaning waters are discharged to the receiving water with the facility wastewater. This practice is addressed in Fact Sheet Section 2f, *Total Residual Chlorine*, and Permit Special Condition A, *Effluent Limitations and Monitoring Requirements*.

10. AMBIENT WATER QUALITY MONITORING:

Maine law, 38 M.R.S.A., Section 465-B.2, states that the "*dissolved oxygen content of Class SB waters must be not less than 85%*". Further, "*the habitat must be characterized as unimpaired*" and "*discharges to Class SB waters shall not cause adverse impact to estuarine and marine life in that the receiving waters shall be of sufficient quality to support all estuarine and marine species indigenous to the receiving water without detrimental changes in the resident biological community*". On July 1, 2003, the Department measured and documented non-attainment of water quality classification standards in the receiving water due to Ray Fishing's wastewater discharge. Pursuant to Department requirements, Ray Fishing conducted ambient water quality investigations in 2003 to yield additional and more in-depth data necessary for re-licensing the Ray Fishing discharge. The investigations yielded information on the receiving water, but did not provide for analysis of the effects on the receiving water from Ray Fishing's discharge due to minimal simultaneous effluent data. In light of ongoing concerns with the effects of Ray Fishing's discharge on water quality in Sawyer Brook and the Narraguagus River, reports of significantly greater levels of production at the facility than previously predicted, and results of wastewater sampling conducted by the permittee that indicates effluent BOD levels of up to 20,000 mg/L, this permitting action requires that the permittee conduct ambient water quality monitoring simultaneously with effluent discharging and monitoring. Ambient studies are being required to definitively determine if the receiving water is attaining its classification standards and designated uses, if Ray Fishing's wastewater discharges cause or contribute to non-attainment conditions, and to provide for modifications to effluent limitations, monitoring and operational requirements to ensure attainment.

On or before six months following the effective date of this permit, Ray Fishing shall submit an ambient water quality monitoring (AWQM) plan for Sawyer Brook and the Narraguagus River to the Department for review and approval. The AWQM plan shall include a scope of

work and schedule for the AWQM program, proposed monitoring locations and maps, methods and materials, and personnel to conduct monitoring and their qualifications. The Department requires that monitoring be conducted at a minimum of three locations: one reference location on the Narraguagus River upstream of the discharge, one location after full effluent mixing, and one location further downstream positioned to exhibit the full effects of the discharge. The Department requires that the permittee conduct a dye study of the effluent mixing characteristics in the receiving water to provide for appropriate siting of the monitoring locations, if such study can not be conducted by USEPA. Ambient monitoring shall measure at a minimum: dissolved oxygen (mg/L and percent saturation), salinity, temperature, and total suspended solids (mg/L and pounds) and shall be conducted in profiles from the water surface to the river bottom with depths indicated. The Department will review and within 30-days of submittal shall either approve or require modification to the AWQM program plan. AWQM shall commence following Department approval of the AWQM program. Two times per year during November and June, beginning in November 2007 and extending through the life of the permit / WDL, the permittee shall conduct AWQM according to a Department approved monitoring plan. Results shall be reported to the Department in a supplemental report accompanying the appropriate monthly DMRs. On or before August 15 each year, the permittee shall submit an annual AWQM program report to include AWQM program data, corresponding effluent data, interpretations of results, and recommendations for further study. The Department will review each annual report. If the receiving water is determined by the Department to be meeting criteria, standards, and designated uses for its assigned water quality class under representative discharge and ambient scenarios, or to not be attaining its classification standards and designated uses, the Department will reopen the permit pursuant to Permit Special Condition L, to modify AWQM program or permit requirements as appropriate.

11. DISCHARGE IMPACT ON RECEIVING WATER QUALITY:

As permitted, the Department has determined the existing water uses will be maintained and protected and the discharge will not cause or contribute to the failure of Sawyer Brook and the Narraguagus River to meet standards for Class SB classification.

If monitoring conducted pursuant to this permitting action and/or other monitoring efforts indicate that non-attainment conditions exist in the receiving water and that Ray Fishing causes or contributes to those conditions, this permitting action may be reopened pursuant to Permit Special Condition L and effluent limitations, monitoring and operational requirements, and/or wastewater treatment requirements adjusted accordingly.

12. PUBLIC COMMENTS:

Public notice of this application was made in the Downeast Coastal Press newspaper on or about August 14, 2001. The Department receives public comments on an application until the date a final agency action is taken on that application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

13. DEPARTMENT CONTACTS:

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

Robert D. Stratton
Division of Water Quality Management
Bureau of Land and Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

Telephone: (207) 287-6114
Fax: (207) 287-7826
email: Robert.D.Stratton@maine.gov

14. RESPONSE TO COMMENTS:

During the period of December 20, 2006 through January 22, 2007, the Department solicited comments on the proposed draft Maine Pollutant Discharge Elimination System Permit / Maine Waste Discharge License to be issued to Lawrence Ray Fishing Industries for the proposed discharge. On January 12, 2007, the Department, Ray Fishing, and its representatives met to discuss their concerns with the Proposed Draft Permit. On January 22, 2007, the Department received a letter from Ray Fishing's attorney commenting on the Proposed Draft Permit. On January 22, 2007, the Department also received a letter from the US National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries or NMFS) commenting on the Proposed Draft Permit. During the period of January 29 through February 5, 2007, the Department solicited comments on a Second Proposed Draft Permit / WDL. On February 5, 2007, the Department received a correspondence from Ray Fishing's attorney commenting on the Second Proposed Draft permit. Significant comments from Ray Fishing and NOAA Fisheries and the Department's responses are summarized below.

Comment 1: Ray Fishing requests that the permit's authorized wastewater discharge period of October 1 through June 30 be amended to allow for processing sea cucumbers obtained during the final days of the harvesting season, which ends on June 30. Ray Fishing requests that processing and wastewater discharges be allowed through July 3 each year.

Response 1: The Permit and Fact Sheet has been modified accordingly. The facility is authorized to discharge treated facility processing wastewater during the period of October 1 through July 3 each year and prohibited from discharging during the period of July 4 through September 30 each year.

Comment 2: Ray Fishing requests that the 15,000 GPD discharge limit be modified to a 15,000 gallons per discharge limit in consideration of those working days when two outgoing tides are available for Ray Fishing to discharge. Ray Fishing states that occasionally facility operations may be hindered by having to hold processing wastewater until the next day's authorized tidal-based discharge period.

Response 2: The previous WDL limited facility wastewater discharges to 15,000 GPD. In its WDL renewal application, Ray Fishing described its operation as consisting of, and applied for, a discharge of 15,000 GPD. Further, analysis of Ray Fishing's discharge monitoring report data for the last five years indicates that its discharge has never exceeded 15,000 GPD, though the second tidal-based discharge option has previously been available.

As noted in the Permit Fact Sheet, production levels at the facility have significantly and consistently exceeded those projected for its previous WDL and in its WDL renewal application. Further, the receiving water has been previously adversely impacted by Ray Fishing's wastewater discharge and results of effluent analyses provided by Ray Fishing has indicated significantly elevated levels of effluent BOD, a pollutant directly linked to the non-attainment conditions in the receiving water described. Based on these factors, the daily maximum discharge flow limit of 15,000 GPD is maintained.

Comment 3: Ray Fishing confirms discussions at the January 12, 2007 meeting that it intends to install an effluent pump and sampling port following the wastewater holding tank to provide for better process control and representative wastewater sampling than current infrastructure and practices.

Response 3: The Permit has been modified accordingly to state that from the effective date of this permit until these upgrades are completed or until March 1, 2007, whichever occurs sooner, effluent monitoring may be conducted at the existing location prior to the holding tank. From this defined period forward, effluent monitoring shall be conducted so as to provide for representative wastewater monitoring.

Comment 4: Ray Fishing requests that proposed minimum monitoring frequency requirements based on consecutive days of processing / discharging be modified to be based on groups of processing / discharging days, as discussed at the January 12, 2007 meeting.

Response 4: The Permit has been modified accordingly to state that sampling shall be conducted at a minimum frequency of one sample for each five days of processing / discharging. Sampling shall be conducted on periods of less than five days of processing / discharging as necessary to complete and start monitoring periods within calendar months.

Comment 5: Ray Fishing states that its use of chlorine based products at the facility consists solely of less than one gallon of chlorine bleach per day and requests that its total residual chlorine effluent limits and monitoring requirements be suspended until such time that Ray Fishing uses more than one gallon per day of chlorine based products containing more than 2.5% sodium hypochlorite.

Response 5: The Department's analyses in Fact Sheet Section 6g, Total Residual Chorine, state the "*...permittee indicates that it uses approximately one-half gallon of household bleach (Chlorox) in facility and equipment clean-up and that cleaning waters are discharged to the receiving water with the facility wastewater. Household bleach typically contains approximately 5.5-6.0% sodium hypochlorite (NaOCl). Using 0.5-gallons of bleach X 0.06 (6.0%) = 0.03-gallons NaOCl / 15,000-gallons of wastewater in the facility wastewater holding tank for dilution = 2 parts per million or 2 mg/L NaOCL. As this projected discharge level exceeds both the water quality based and BPT based limits, the permittee will need to explore and modify its operational practices to ensure compliance with the effluent limitation.*" As noted in Comment 7 below, Ray Fishing wishes to modify the minimum required discharge volume that provides dilution prior to discharge to the receiving water. The Department is disinclined to modify the TRC effluent limits and monitoring requirements when analyses indicate anticipated non-compliance of those limits with the dilution of a full holding tank under current described facility conditions. Even if Ray Fishing were to use chlorine based products with less concentrations of sodium hypochlorite than described in the analysis above, reduction of the minimum discharge volume and resulting dilution offsets the lower concentration and still provides elevated chlorine discharges under most scenarios.

Comment 6: Ray Fishing requests that Discharge Monitoring Report submission requirements be modified to allow for submittal of results through non-hand delivery methods, necessitated due to frequent late receipt of results from laboratories.

Response 6: The Permit requirements have been modified pursuant to Department administrative rules (Chap. 2, §3A), so that the Department will also accept a facsimile copy if followed by receipt of the original document within 5 working days.

Comment 7: Ray Fishing requests a modification of permit requirements that cook water and clean-up water be discharged in a full volume of holding tank water (15,000 gallons), stating that this practice will cause the cook water to remain in the holding tank for longer periods of time. Ray Fishing provided analysis that a discharge volume as low as 1,000-gallons would still result in compliance with temperature rules.

Response 7: Permit Special Condition I, Discharge Conditions, states in part, "*All cook water and clean up water must be discharged in a full volume of holding tank water to provide for maximum dilution of the waste streams before being discharged*". Temperature is only one of the effluent concerns prompting a minimum discharge volume and maximum possible effluent dilution prior to discharge. As noted in Responses to Comments above, the Department is also concerned with the effects on the receiving water from Ray Fishing's discharges of BOD and Chlorine, as well as other effluent pollutants. The Department requested that Ray Fishing provide information on the minimum amount of wastewater discharged per day at the facility to enable it to review the toxicity / water quality based concerns. Although Ray Fishing utilized 1,000-gallons in the analysis described above, it has not specified an actual minimum discharge for this purpose. Based on discussions at the

January 12, 2007 meeting, the Department is assuming and specifying a minimum discharge of 5,000-gallons per processing / discharging day. However, the Department cautions Ray Fishing that its discharge must comply with effluent limitations established in this Permit and must not cause or contribute to non-attainment of receiving water classification standards and designated uses. Operationally adjusting the minimum amount of wastewater discharged may result in changes in effluent quality.

Comment 8: Ray Fishing requested modification of Permit Special Condition K, Ambient Water Quality Monitoring, to emphasize that the Department will review each annual report and modify AWQM program or permit requirements as appropriate.

Response 8: The Department believes that this process has already been established, but modified the referenced section accordingly.

Comment 9: Ray Fishing notes that the effluent pump to be installed referenced in Comment 3 above will control the discharge flow and provide for a constant flow rate. Ray Fishing states that this will address the need for flow proportional samples required in Permit Special Conditions A, Footnote 5 provided a constant flow rate can be maintained.

Response 9: No modification of the permit is necessary. Issues related to permit compliance can be resolved between the Department's compliance inspector and the permittee.

Comment 10: Ray Fishing is concerned that the time necessary for shipping and laboratory processing of effluent samples may impact the standard holding times for laboratory BOD analysis and thus compliance with their effluent limits. Ray Fishing requests that the Department verify its procedures for considering these issues as stated in a Department letter to wastewater laboratory analysts dated November 29, 2005.

Response 10: The conditions established in the November 29, 2005 letter remain in effect. No modification of the permit is necessary. Issues related to permit compliance can be resolved between the Department's compliance inspector and the permittee.

Comment 11: Ray Fishing requests guidance on acceptable pH measurement equipment and procedures for permit compliance.

Response 11: No modification of the permit is necessary. Issues related to permit compliance can be resolved between the Department's compliance inspector and the permittee.

Comment 12: Ray Fishing states that though its current operations are limited to sea cucumber processing, it requests the ability to occasionally process other forms of seafood as long as all permit requirements are met.

Response 12: Pursuant to the comment above and discussions during the January 12, 2007 meeting, Permit Fact Sheet Section 2d has been modified to include the language, "*Ray Fishing plans to conduct trial processing of hagfish and other seafood products, but will adhere to all limitations and requirements in this permitting action*".

Comment 13: NOAA Fisheries states, "*The recommended discharge limitations are consistent with EPA's federal ambient water quality criteria. However, in light of past non-attainment of water quality classifications in the facility's receiving waters (which include the Narraguagus River), NMFS can not conclude that proposed discharge limitations are likely to result in no more than a minor detrimental effect to Atlantic salmon. NMFS will need to review the results of upcoming ambient water quality monitoring to make such a determination. Therefore, NMFS requests that MDEP require the Applicant to develop the water quality monitoring plan in consultation with the NMFS and USFWS. In addition to monitoring dissolved oxygen, salinity, and temperature as indicated in the draft permit, NMFS recommends the Applicant also monitor TSS levels in the receiving waters. NMFS supports MDEP recommendations that ambient water quality monitoring occur two times per year during November and June throughout the life of the MEPDES/WDL. These semi-annual water quality monitoring reports should be provided to NMFS and USFWS for review and comment.*" "*NMFS is committed to working with MDEP to develop conditions at the facility that are adequately protective of endangered salmon, as outlined in the* (Memoranda of Agreement) *among our agencies.*"

Response 13: The AWQM requirements have been modified to include TSS. The Department will share the permittee's draft AWQM plan with NOAA Fisheries and USFWS for review and comment, however approval of the plan and monitoring program rests with MEDEP. The Department will also share results of the permittee's AWQM with NOAA Fisheries and USFWS. The Department reminds NOAA Fisheries that Permit Special Condition K provides for modification of the AWQM program or permit requirements as appropriate based on the results of monitoring and receiving water conditions.

Based on the Second Proposed Draft:

Comment 14: Ray Fishing requests that the required minimum sampling frequency "*be modified to require the lesser of 'once every five days of operation' or four samples per month*".

Response 14: As stated in Fact Sheet Section 6 for various pollutants. "*These requirements are based on the Department's BPJ of monitoring frequencies and types necessary to more accurately characterize facility effluent conditions*". As stated in Section 6.d, Biochemical Oxygen Demand (BOD), "*At this time, the Department does not have information on the*

receiving water's capacity to assimilate the effluent BOD levels anticipated without adverse effects. If ambient water quality monitoring required by this permitting action demonstrates that the receiving water can do so and attain its water quality classification standards and designated uses, the facility discharge permit may be reopened and effluent limits, monitoring and operational requirements adjusted as appropriate...". Based on these factors, the Department declines to modify the requirements at this time.

Comment 15: Ray Fishing requests that the March 1, 2007 deadline for the infrastructural and operational improvements required in Permit Special Condition G be modified to 68 days from the effective date of the new Permit / WDL. Ray Fishing states that 40 days is necessary for pump design, 14 days for pump installation, and 14 days for inspection and testing.

Response 15: The Department notes that the necessity of, and requirements for, installation of an effluent pump and a sampling port to provide for better process control and representative wastewater sampling were discussed at the January 12, 2007 meeting. The Department is concerned that despite this, the permittee's plans for undertaking these necessary upgrades project beyond the effective date of the new Permit / WDL. The Department considers 68 days beyond the effective date of the new Permit / WDL to be an excessive period of time given the importance of the tasks. However, the Department has provided one additional month for completion of these tasks, modifying the Schedule of Compliance date from March 1, 2007 to April 1, 2007.

Comment 16: Ray Fishing states that a review of Permits / WDLs for two other sea cucumber processing facilities appears to indicate that a different method was used in calculating the projected total residual chlorine effluent concentration for its facility. Ray Fishing recommends that the Department review this information and requests that TRC monitoring requirements be suspended under specified conditions, as was done for the other facilities.

Response 16: The Department notes that the two Permits / WDLs referenced were issued in excess of three years ago, that each of the three facilities and their specific conditions are unique, and that the Department's often stated intentions are to improve upon prior permitting efforts and methods. The Department has reviewed and confirmed the method of calculation used in Ray Fishing's Permit / WDL. In fact, the modification of the required minimum daily discharge volume requested by Ray Fishing yields an increase in the projected effluent TRC value, reinforcing the need for an effluent limit and monitoring.

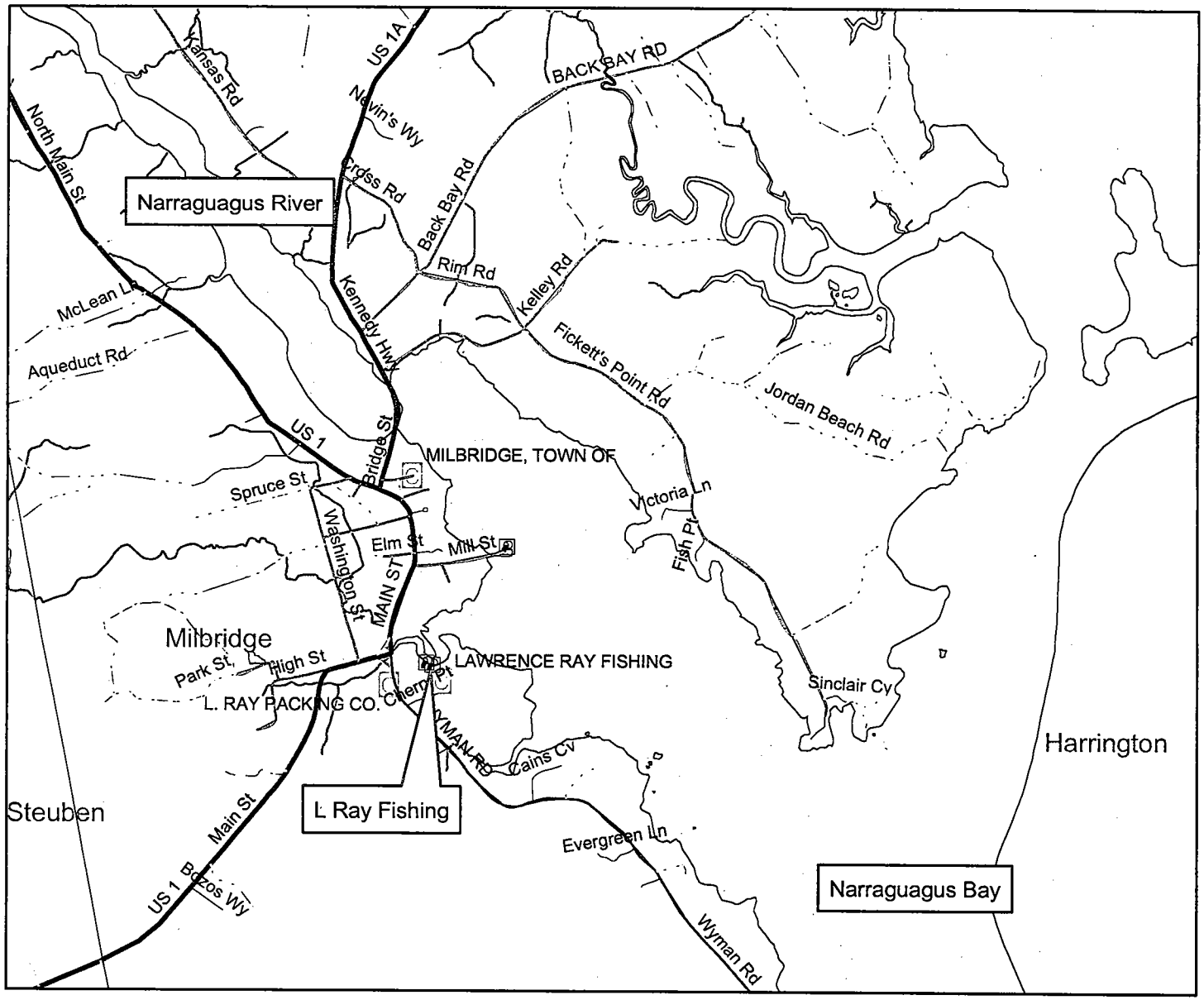
However, the Department has also found an error in the effluent projection calculated for one of the other facilities (Treasures of the Sea), which it intends to address in the future. Ray Fishing's comparison to the slightly different method of calculation used for the other facility (Taka International Corp.) does not consider differences in the amount of available chlorine in the cleaning products used at the two facilities. These differences warrant a slightly

different calculation method. Additional site specific factors also affected the effluent concentration projection.

Ray Fishing's questions have caused the Department to review its approach to TRC limits and monitoring requirements at sea cucumber processing facilities further. Accordingly, the Department has modified this Permit / WDL to utilize the water quality based TRC limit of 1.5 mg/L instead of the 1.0 mg/L technology based limit used for other industries. Further, the Department notes that the mathematical calculation method to predict effluent TRC concentrations does not account for effects from the wastewater in the holding tank. The Department anticipates that effluent chlorine will be substantially lower than the calculated value due to interactions with Ray Fishing's BOD-rich wastewater. Depending on the results of accurate sampling under representative conditions in the future made possible by the infrastructural and operational improvements required in Permit Special Condition G and pursuant to requests by the permittee, the Department will re-evaluate and modify monitoring requirements as appropriate.

ATTACHMENT A

(Facility Location Maps)



Legend

Streams

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

Roads

JURISDICTION

- Town Road
- Town Road - Summer
- Town Road - Winter
- State-aided Highway
- State Highway
- Toll Highway
- Private Road
- Reservation Road
- Seasonal Parkway
- SA
- SB
- sa
- sb
- sc

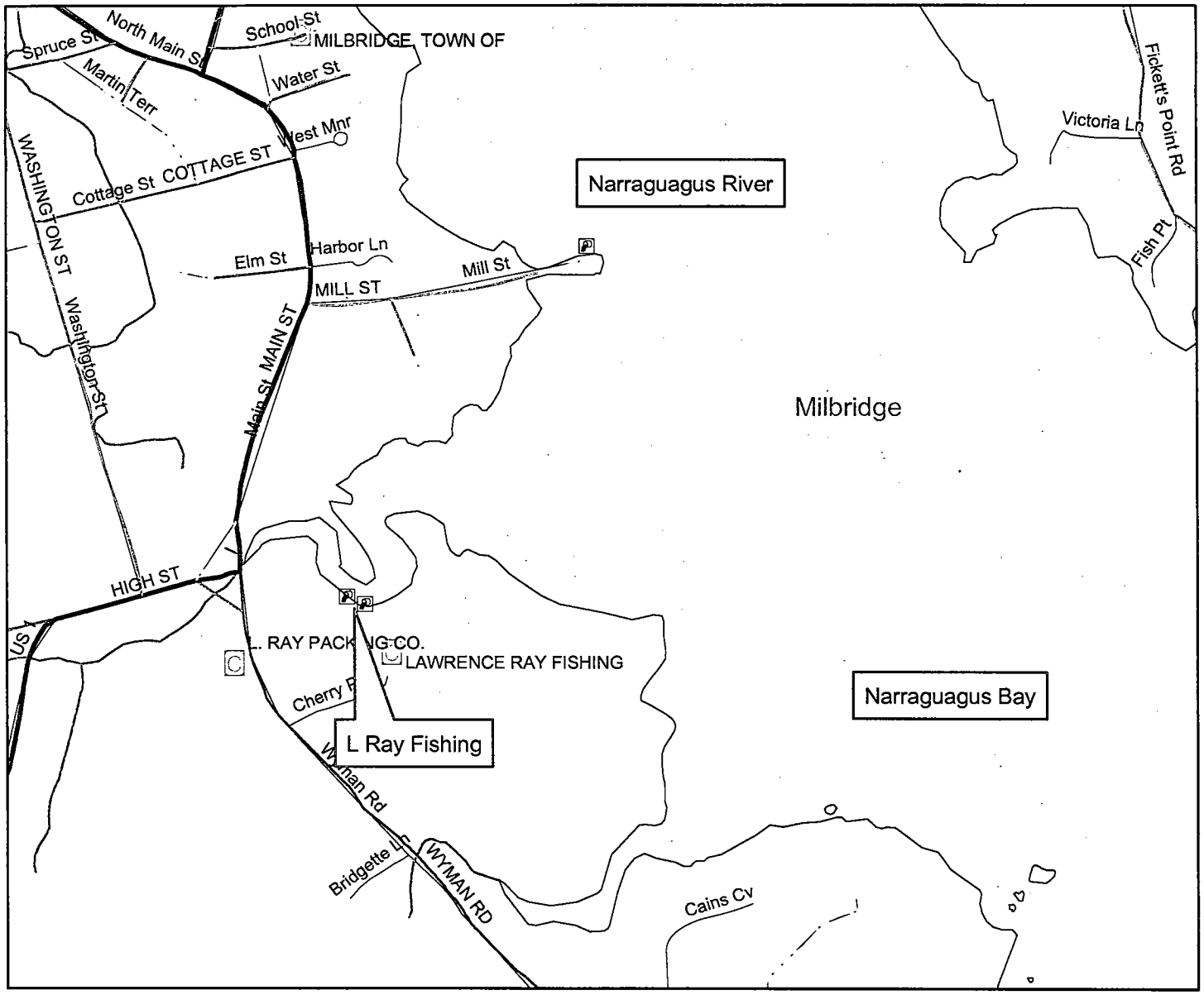
N

0 0.15 0.3 0.6 0.9 1.2 Miles

Lawrence Ray Fishing
Milbridge, Maine

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

DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE OF MAINE



Legend

Streams

- AA
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- Town Road
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- Private Road
- Reservation Road
- Seasonal Parkway
- SA
- SB
- sa
- sb
- sc

N

0 0.05 0.1 0.2 0.3 0.4 Miles

Lawrence Ray Fishing
Milbridge, Maine

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

DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE OF MAINE

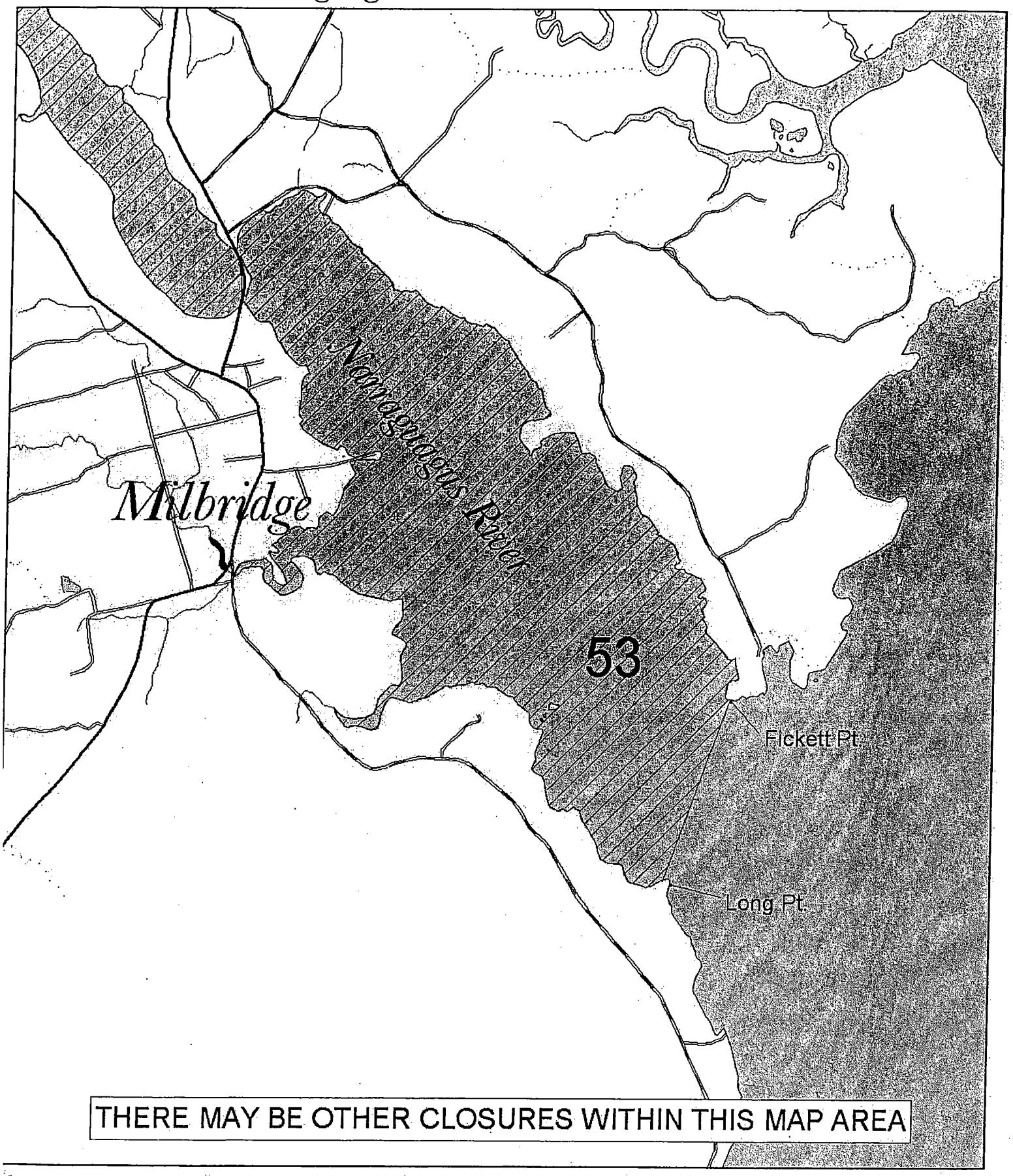
ATTACHMENT B

(Maine DMR Shellfish Closure Map)

Maine Department of Marine Resources

Legal Notice of Shellfish Closure Area

C53 - Narraguagus River 6/3/05



NOTICE OF EMERGENCY RULE REPEAL AND PROMULGATION

AGENCY: Department of Marine Resources

STATUTORY AUTHORITY: 12 M.R.S.A. Sections 6172 and 6192

RULE REPEAL AND PROMULGATION: DMR Regulation 95.09 B, Closed Area No. 53, Narraguagus River, Milbridge, promulgated on December 18, 2003, is repealed and replaced with the following rule:

TEXT OF RULE: 95.09 B, Closed Area No. 53, Narraguagus River, Milbridge.

Effective immediately, because of pollution, it shall be unlawful to dig, take or possess any clams, quahogs, oysters or mussels taken from the shores, flats and waters of the Narraguagus River, in the Town of Milbridge, Washington County, inside (north and west) of a line beginning at Long Point, running north to the southwestern tip of Ficketts Point.

EFFECTIVE DATE: June 3, 2005

AGENCY CONTACT PERSON: Amy Fitzpatrick
Department of Marine Resources
194 McKown Point Road
W. Boothbay Harbor, ME 04575

BANGOR DAILY NEWS
June 7, 2005

STATEMENT OF FACT AND POLICY

The Commissioner of the Maine Department of Marine Resources repeals the emergency DMR Regulation 95.09 B, Closed Area No. 53, Narraguagus River, Milbridge, promulgated on December 18, 2003, and replaces it with a new regulation. This new regulation extends the existing closure along the eastern shore down to Fickett's Point.

Department personnel have sampled and surveyed the Narraguagus River area and determined that a larger closure must be enforced to maintain public health.

Lewis Flagg

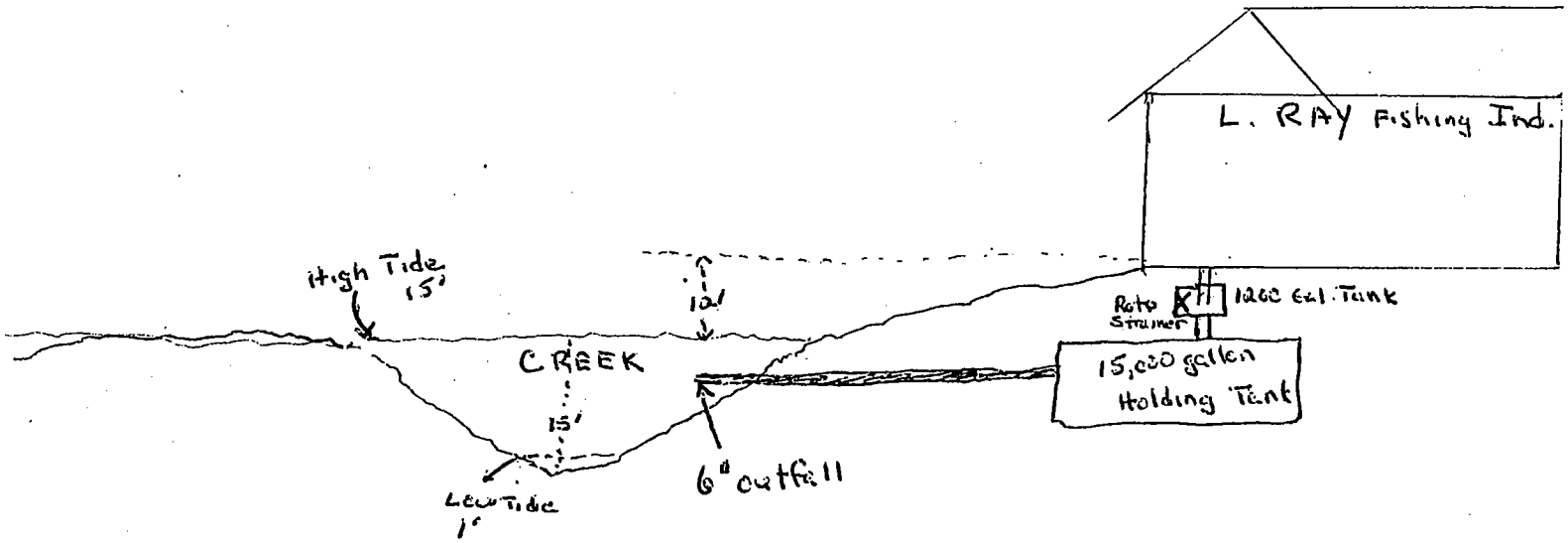
LEWIS FLAGG
DEPUTY COMMISSIONER (EXTERNAL AFFAIRS)

ATTACHMENT C

(Facility Site Plans)

Exhibit 7

From 1995 application

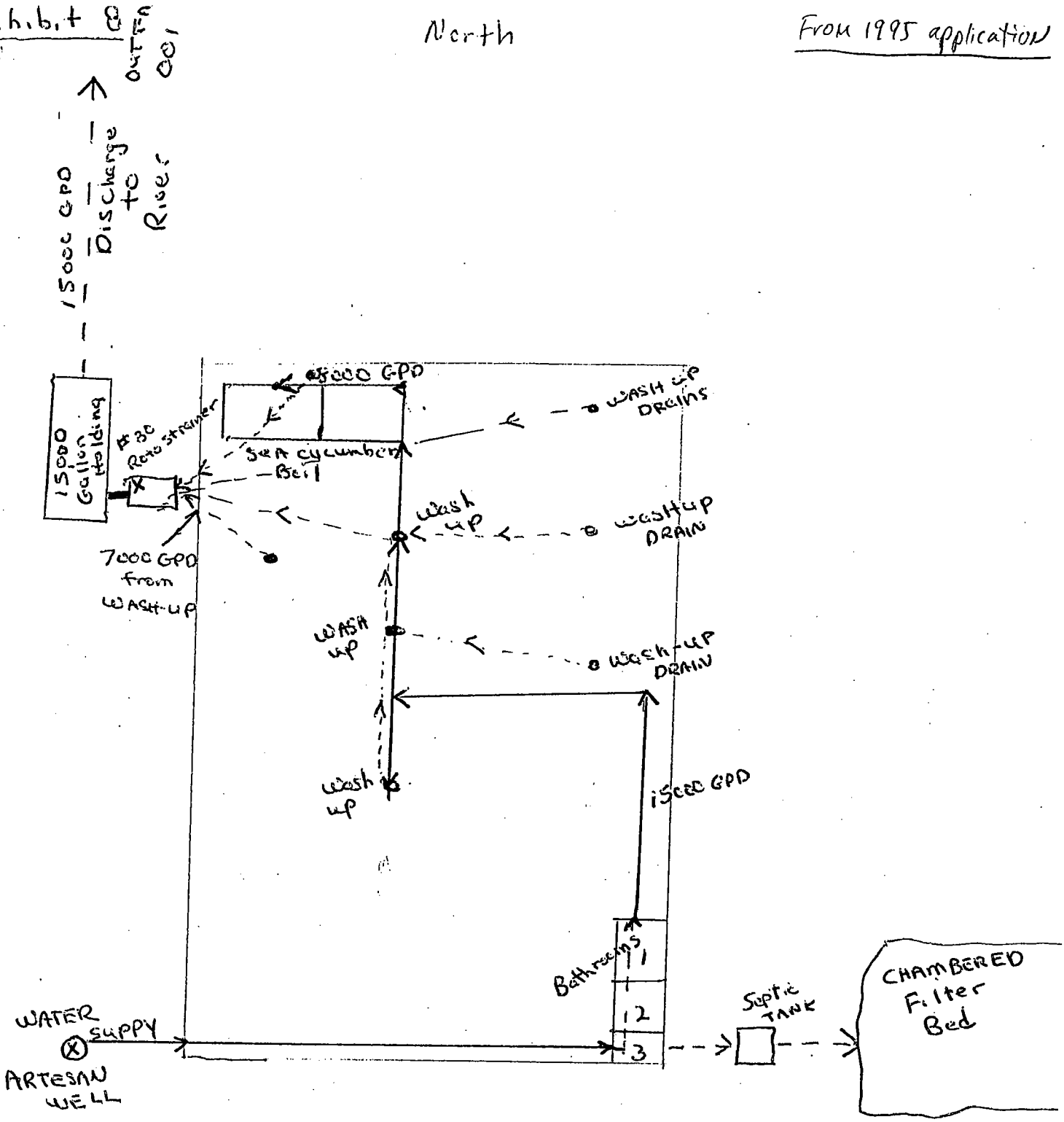


All discharge passes through a # 30 mesh rotostrainer and is then held in a 15,000 gallon holding tank to be discharged on a tide (time) controlled valve. Discharge will occur 1 hours after high tide. The 6" out fall will be located 7 feet below high water. This will assure at least 3' of water covering out fall during discharge. Total time for discharge will be less than 1 hour.

Exhibit B

North

From 1995 application



8000 GPD FROM Cucumber Bed

7000 GPD FROM

South