STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

Beth Nagusky
ACTING COMMISSIONER

October 15, 2010

Mr. Greg Lambert
Atlantic Salmon of Maine, LLC
P.O. Box 380
Oquossoc, Maine 04964

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0110116
Maine Waste Discharge License (WDL) Application # W-004701-6F-E-R
Final Permit, ASM Rangeley Fish Hatchery, Rangeley (Oquossoc)

Dear Greg:

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.*"

If you have any questions regarding the matter, please feel free to call me at (207) 215-1579 or contact me via email at Robert.D.Stratton@maine.gov.

Sincerely,

Bob Stratton DEP

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

Enc./cc: Beth DeHaas (MEDEP); Sandy Mojica (USEPA); Jonathan Adkins (ASM Rangeley);
Norm Rodrigue (Union Water & Power Co.)

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 624-6550FAX: (207) 624-6024
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
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(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
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STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION
AUGUSTA, ME 04333

DEPARTMENT ORDER

IN THE MATTER OF

ATLANTIC SALMON OF MAINE, LLC	)	MAINE POLLUTANT DISCHARGE
RANGELEY, FRANKLIN COUNTY, MAINE	)	ELIMINATION SYSTEM PERMIT
FISH HATCHERY	)	AND
#ME0110116	)	WASTE DISCHARGE LICENSE
#W-004701-6F-E-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 ATLANTIC SALMON OF MAINE, LLC (hereinafter ASM, ASM Rangeley), 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 Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0110116 / Maine Waste Discharge License (WDL) #W-004701-5Q-B-R, which was issued on December 30, 2005 for a five-year term. The MEPDES Permit / Maine WDL approved the discharge of a monthly average of 12 million gallons per day (MGD) of fish hatchery wastewater to the Rangeley River, Class A and a tributary to Mooselookmeguntic Lake, from a commercial Atlantic salmon hatchery and rearing facility in Rangeley (Oquossoc), Maine.

PERMIT SUMMARY

This permitting action is similar to the December 30, 2005 MEPDES Permit / Maine WDL and subsequent permit modifications and revisions in that it is carrying forward all previous terms and conditions with a few exceptions. This permitting action is different in that it is:

1. revising minimum monitoring frequency requirements for formalin;
2. updating requirements related to proper use and record keeping of therapeutic agents and disinfecting/sanitizing agents; and
3. establishing requirements to notify the Department and apply for permit revision if the facility lease agreement and/or conditions governing the minimum volume of water passed to the Rangeley River lapse or change.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated September 13, 2010, revised October 15, 2010 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.

5. The Discharge is necessary and there are no other reasonable alternatives available.

ACTION

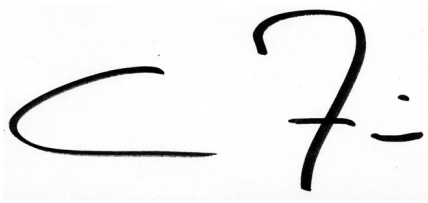
THEREFORE, the Department APPROVES the above noted application of ATLANTIC SALMON OF MAINE, LLC. to discharge fish hatchery and rearing facility wastewater consisting of a monthly average flow of 12 MGD to the Rangeley River, Class A, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and 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.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES



This permit has been digitally signed by Andrew C. Fisk on behalf of Acting Commissioner Beth Nagusky. It is digitally signed pursuant to authority under 10 M.R.S.A. § 9418. It has been filed with the Board of Environmental Protection as of the signature da
2010.10.15 13:25:37 -04'00'

Date of initial receipt of application: May 26, 2010
Date of application acceptance: May 26, 2010

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

SPECIAL CONDITIONS
A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge **fish hatchery and rearing facility wastewater from Outfall #004A** to the Rangeley River. Such discharges shall be limited and monitored by the permittee as specified below. The italicized numeric values bracketed in the table below and in subsequent text are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports (DMRs). Footnotes are found on Pages 5 and 6.

Monitoring Parameter	**Discharge Limitations and Reporting Requirements**				**Minimum Monitoring Requirements**	
	Monthly Average as specified	Daily Maximum as specified	Monthly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Flow *[50050]*	12 MGD *[03]*	---	---	---	Daily *[01/01]*	Measured *[MS]*
BOD[2] *[00310]*	379 lbs/day *[26]*	415 lbs/day *[26]*	6 mg/L *[19]*	10 mg/L *[19]*	2 / month *[02/30]*	Composite[1] *[CP]*
TSS[2] *[00530]*	249 lbs/day *[26]*	285 lbs/day *[26]*	6 mg/L *[19]*	10 mg/L *[19]*	2 / month *[02/30]*	Composite[1] *[CP]*
Total Phosphorus[2] *[00665]*	Report total lbs/month *[76]*	Maximum 660 lbs/year *[50]*	0.102 mg/L *[19]*	report mg/L *[19]*	1/week *[01/07]*	Composite[1] *[CP]*
Fish on Hand *[45604]*	report lbs/day *[26]*	report lbs/day *[26]*	---	---	1/week *[01/07]*	Calculated *[CA]*
Formalin[3] **1-Hour Treatment Maximum** *[51064]*	report lbs/day *[26]*	49 lbs/day *[26]*	report mg/L *[19]*	66 mg/L *[19]*	Once per occurrence *[01/OC]*	Calculated *[CA]*
Formalin[3] **24-Hour Treatment Maximum** *[51064]*	report lbs/day *[26]*	49 lbs/day *[26]*	report mg/L *[19]*	37 mg/L *[19]*	Once per occurrence *[01/OC]*	Calculated *[CA]*
pH *[00400]*	---	---	---	6.0-8.5 S.U. *[12]*	1/week *[01/07]*	Grab *[GR]*

.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS, FOOTNOTES

Effluent Monitoring: Effluent values shall be collected at Outfall #004A following all means of wastewater treatment prior to discharge to the receiving water. All monitoring shall be conducted so as to capture conditions representative of wastewater generating processes at the facility, such as flow-through and cleaning discharge flows, use of therapeutic and disinfecting/sanitizing agents, etc. and in consideration of settling pond detention times. Any change in sampling location must be reviewed and approved by the Department in writing. Sampling and analysis must be conducted in accordance with: a) methods approved in 40 Code of Federal Regulations (CFR) Part 136; b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136; or c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services. Samples that are sent to a POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S.A. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (last amended February 13, 2000). **All effluent limits are gross, end of pipe limits, unless otherwise specified**.

All analytical test results shall be reported to the Department including results which are detected below the respective reporting limits (RLs) specified by the Department or as specified by other approved test methods. If a non-detect analytical test result is below the respective RL, the concentration result shall be reported as <Y where Y is the detection limit achieved by the laboratory for each respective parameter. Reporting a value of <Y that is greater than an established RL is not acceptable and will be rejected by the Department. For mass, if the analytical result is reported as <Y or if a detectable result is less than a RL, report a <X lbs/day, where X is the parameter specific limitation established in the permit.

1. Composite Samples: Samples shall consist of 24-hour composites collected with an automatic composite sampler. Alternatively, when weather conditions and/or equipment prevents automatic compositing and upon approval by the Department's compliance inspector, the permittee may manually composite a minimum of four grab samples collected at two-hour intervals during the working day at the facility.

2. Total Phosphorus: The concentration and mass effluent limits and monitoring requirements shall consist of gross, end-of-pipe values. **Phosphorus concentration** limits and monitoring requirements (mg/L) are seasonal and are only in effect from June 1 through September 30 each year. **Phosphorus mass** limits and monitoring requirements (lbs) are in effect year-round. **The permittee is cautioned that compliance with concentration limits will not necessarily result in compliance with mass limits as they are separately derived**. Laboratory analysis shall consist of a low-level phosphorus analysis with a minimum detection limit of 1 part per billion (1 ug/L).

SPECIAL CONDITIONS

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

3. Formalin: Formalin monitoring shall be conducted only when in use at the facility and shall consist of a calculated effluent value. The permittee shall calculate the effluent formalin concentration through accurate determinations of the formalin mass administered in each facility use, the volume of facility wastewater to which the formalin is added during the treatment period, and the volume of large wastewater structures that receive the effluent (during 1-hour treatments or less). The effluent mass shall be calculated by multiplying the gallons of formalin used by a 9.13 lbs / gallon conversion formula based on the weight of formalin. The permittee shall provide this information and calculations to the Department in a document accompanying the monthly DMR. See Fact Sheet Section 6f for sample calculations. The two-tiered formalin limits correspond to a first tier standard one hour per day treatment typical of hatchery and rearing facility discharges and a second tier for up to a maximum of 24 hours of treatment and discharge for addressing emergency conditions at the facility. Concentration limits for both tiers are based on the Department's BPJ of AWQC that will be protective of aquatic life in the receiving water. **Note, formalin treatments and discharges pursuant to the second tier limits (1 hour to 24 hour discharges) must be conducted no more frequently than once every four days. The permittee shall provide a list of dates on which the second tier limits were utilized and the length of time of each such treatment, with each monthly DMR.**

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.

SPECIAL CONDITIONS

C. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on May 26, 2010; 2) the terms and conditions of this permit; and 3) only from Outfall #004A. 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), *Bypasses*, 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:

    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. If you are receiving printed-copy DMR forms by mail, the completed, returned forms must be **postmarked on or before the thirteenth (13th) day of the month or hand-delivered to the Department's Regional Office such that the DMRs are received by the Department on or before the fifteenth (15th) day of the month** following the completed reporting period. A signed copy of the DMR and all other reports required herein shall be submitted to the Department assigned inspector (unless otherwise specified by the Department) at the following address:

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

SPECIAL CONDITIONS

E. MONITORING AND REPORTING (cont'd)

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

F. OPERATION & MAINTENANCE (O&M) PLAN

This facility shall have a current written comprehensive Operation & Maintenance (O&M) Plan**.** The plan shall provide a systematic approach by which the permittee shall at all times, properly operate and maintain all facilities and 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.

The O&M Plan shall establish Best Management Practices (BMP) to be followed in operating the facility, cleaning the raceways/culture tanks, screens, and other equipment and disposing of any solid waste. The purpose of the BMP portion of the plan is to identify and to describe the practices which minimize the amounts of pollutants (biological, chemical, and medicinal) discharged to surface waters. Among other items, the plan shall describe in detail efficient feed management and feeding strategies to minimize discharges of uneaten feed and waste products, how and when the accumulated solids are to be removed, dewatered, and methods of disposal. The plan shall also describe where the removed material is to be placed and the techniques used to prevent it from re-entering the surface waters from any onsite storage. The plan shall document the recipients and methods of any offsite waste disposal.

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 waste water 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. FACILITY LEASE AGREEMENT AND MINIMUM AMBIENT FLOWS

In the event that the facility lease agreement between Union Water and Power Co. (UWP) and ASM Rangeley and/or conditions governing the minimum volume of water passed to the Rangeley River by UWP and/or ASM Rangeley lapse or change, the permittee shall notify the Department within one working day (24-hours) of discovery and shall apply for revision of the MEPDES Permit / Maine WDL.

H. ALTERNATIVE DISCHARGE STUDY

On or before six-months prior to expiration of this permit, ASM Rangeley is required to submit to the Department for review, an Alternative Discharge Study (ADS) report for the Rangeley facility to determine if practical alternatives to the discharge exist. The ADS report shall evaluate wastewater treatment infrastructure, technologies, practices or other modifications that will result in the elimination of the discharge to the receiving water or improvement in the effluent quality, pursuant to guidance in Fact Sheet Section 7. *[34099]*

I. SETTLING BASIN CLEANING

All wastewater settling structures shall be cleaned when accumulated materials occupy 20% of a basin's capacity, when material deposition in any area of the basins exceeds 50% of the operational depth, or at any time that said materials in or from the basins are contributing to a violation of permit effluent limits. The permittee is responsible for reporting effluent violations pursuant to Standard Conditions D.1 (f) and (g).

J. DISEASE AND PATHOGEN CONTROL AND REPORTING

ASM Rangeley must comply with Maine Department of Inland Fisheries and Wildlife and Maine Department of Marine Resources salmonid fish health rules (12 MRSA, §6071; 12 MRSA, §§7011, 7035, 7201, and 7202, or revised rules). The cited rules include requirements for notification to the appropriate agency within 24-hours of pathogen detection. In the event of a catastrophic pathogen occurrence, in addition to the requirements of the rules, **the permittee shall notify the Department in writing within 24-hours of detection**, with information on necessary control measures and the veterinarian involved. The permittee shall submit to the Department for review and approval, information on the proposed treatment including materials/chemicals to be used, material/chemical toxicity to aquatic life, the mass and concentrations of materials/chemicals as administered, and the concentrations to be expected in the effluent. If, upon review of information regarding a treatment pursuant to this section, the Department determines that significant adverse effects are likely to occur, it may restrict or limit such use.

SPECIAL CONDITIONS

K. THERAPEUTIC AGENTS

All medicated fish feeds, drugs, and other fish health therapeutants shall be registered with USEPA as appropriate, approved by the US Food and Drug Administration (USFDA), and applied according to USFDA accepted guidelines and manufacturer's label instructions. Records of all such materials used are to be maintained at the facility for a period of five years. This permitting action does not authorize routine off-label or extra-label drug use. Such uses shall only be permitted in emergency situations when they are the only feasible treatments available and only under the authority of a veterinarian. **The permittee shall notify the Department in writing within 24-hours of such use.** This notification must be provided by the veterinarian involved and must include the agent(s) used, the concentration and mass applied, a description of how the use constitutes off-label or extra-label use, the necessity for the use in terms of the condition to be treated and the inability to utilize accepted drugs or approved methods, the duration of the use, the likely need of repeat treatments, and information on aquatic toxicity. Such uses and discharges will be subject to Department review and approval. If, upon review of information regarding the use of a drug pursuant to this section, the Department determines that significant adverse effects are likely to occur, it may restrict or limit such use. **The use and discharge of therapeutic agents is subject to the conditions described in Permit Special Condition C, Unauthorized Discharges.**

L. 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 five 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 use and discharge of disinfecting/sanitizing agents is subject to the conditions described in Permit Special Condition C, Unauthorized Discharges.**

M. MINIMUM TREATMENT TECHNOLOGY REQUIREMENT

Based on the information provided and Department BPJ, the permittee shall provide minimum treatment technology for the Rangeley facility that shall consist of treatment equal to or better than 60-micron microscreen filtration of the effluent, wastewater settling/clarification, and removal of solids. ASM Rangeley shall provide treatment and/or effluent quality equal to or better than the BPJ minimum treatment technology and shall comply with all effluent limitations, monitoring requirements, and operational requirements established in this permitting action. Additional treatment may be necessary to achieve specific water quality based limitations.

SPECIAL CONDITIONS

N. SALMON GENETIC TESTING AND ESCAPE PREVENTION

The US Fish and Wildlife Service and the National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries) formally listed the Atlantic salmon as an endangered species on November 17, 2000. In that decision, the Gulf of Maine Distinct Population Segment (DPS) encompassed all naturally reproducing remnant populations of Atlantic salmon downstream of the former Edwards Dam site on the Kennebec River northward to the mouth of the St. Croix River. The watershed structure, available Atlantic salmon habitat, and abundance of Atlantic salmon at various life stages were best known for the following eight rivers: Dennys River, East Machias River, Machias River, Pleasant River, Narraguagus River, Ducktrap River, Sheepscot River, and Cove Brook. On June 15, 2009, the two agencies expanded the Gulf of Maine DPS to include salmon in the Penobscot, Kennebec, and Androscoggin Rivers and their tributaries. Two significant issues of concern regarding the rearing of salmon in Maine involve the genetic integrity of the salmon and escape prevention to avoid impacts on native fish.

Leading up to the 2000 listing and in review of MEPDES Permit / Maine WDLs for other fish hatchery and rearing facilities in Maine, the USFWS and NOAA Fisheries have advocated for genetic testing of Atlantic salmon housed at hatchery and rearing facilities to ensure that they are of North American origin, as well as employment of a fully functional Containment Management System (CMS) at facilities to prevent the escape of raised salmon or other species of concern in order to avoid impacts on native fish populations. The escape of reared fish also has the potential for transmission of diseases and pathogens to native fish populations. These issues are of particular concern for the Gulf of Maine DPS and resulted in establishment of CMS requirements for the ASM Rangeley facility in the previous permitting action.

Maine's Aquaculture General Permit (#MEG130000, Part II, Section I) and individual MEPDES Permits for marine aquaculture facilities contain requirements to address the genetic integrity of Atlantic salmon raised in Maine for aquaculture. The genetic requirements are implemented at the marine sites as well as at the hatchery and rearing facilities that raise and supply salmon for marine aquaculture. **The use of Atlantic salmon eggs or fish originating from non-North American stock is prohibited at the ASM Rangeley facility.** It should be noted, ASM Rangeley's current operation involves raising Atlantic salmon for marine aquaculture. Thus, its eggs and fish are subject to the genetic requirements specified in General Permit #MEG130000 and/or individual MEPDES permits for the marine sites. Further, the ASM Rangeley facility outfalls to the Rangeley River, which then flows to Mooselookmeguntic Lake, Upper and Lower Richardson Lakes, the Rapid River, Umbagog Lake, and the Androscoggin River, which flows across Maine until it meets with the Kennebec River in Merrymeeting Bay. Salmon from ASM Rangeley would have to navigate each of these waters to encounter the nearest DPS water. Because of the unlikeliness of this occurring and because of the requirements already in place in the aforementioned permits, this permitting action is not establishing genetic testing requirements for the ASM Rangeley facility.

SPECIAL CONDITIONS

N. SALMON GENETIC TESTING AND ESCAPE PREVENTION (cont'd)

Based on requirements established in Maine's Aquaculture General Permit, individual MEPDES Permits for marine aquaculture facilities, and guidance developed by the Maine Aquaculture Association, this permitting action carries forward the requirement that **the permittee shall employ a fully functional CMS at the facility** designed, constructed, and operated so as to prevent the accidental or consequential escape of fish to open water. The CMS plan shall include a site plan or schematic with specifications of the particular system. The permittee shall develop and utilize a CMS consisting of management and auditing methods to describe or address the following: site plan description, inventory control procedures, predator control procedures, escape response procedures, unusual event management, severe weather procedures and training. The CMS shall contain a facility specific list of critical control points (CCP) where escapes have been determined to potentially occur. Each CCP must address the following: the specific location, control mechanisms, critical limits, monitoring procedures, appropriate corrective actions, verification procedures that define adequate CCP monitoring, and a defined record keeping system.

The CMS site specific plan shall describe the use of effective containment barriers appropriate to the life history of the fish. The facility shall have in place both a three-barrier system for fish up to 5 grams in size and a two barrier system for fish 5 grams in size or larger. The three-barrier system shall include one barrier at the incubation/rearing unit, one barrier at the effluent from the hatch house/fry rearing area and a third barrier placed inline with the entire effluent from the facility. Each barrier shall be appropriate to the size of fish being contained. The two-barrier system shall include one barrier at the individual rearing unit drain and one barrier inline with the total effluent from the facility. Each barrier shall be appropriate to the size of fish being contained. Barriers installed in the system may be of the screen type or some other similarly effective device used to contain fish of a specific size in a designated area. Barriers installed in the system for compliance with these requirements shall be monitored daily. Additional requirements include:

1. The CMS shall be audited **at least once per year and within 30 days of a reportable escape** (more than 50 fish) by a party other than the facility operator or owner qualified to conduct such audits and approved by the Department. ***[09008]*** A written report of these audits shall be provided to the permittee and the Department for review and approval **within 30 days of the audit being conducted.** If deficiencies are identified during the audit, the report shall contain a corrective action plan, including a timetable for implementation and re-auditing to verify deficiencies are addressed as in the corrective action plan approved by the Department. Additional third party audits to verify correction of deficiencies shall be conducted in accordance with the corrective action plan or upon request of the Department. The permittee shall notify the Department upon completion of corrective actions.

2. Facility personnel responsible for routine operation shall be properly trained and qualified to implement the CMS. **Prior to any containment system assessment** associated with this permit, the permittee shall provide to the Department documentation of the employee's or contractor's demonstrated capabilities to conduct such work.

SPECIAL CONDITIONS

N. SALMON GENETIC TESTING AND ESCAPE PREVENTION (cont'd)

3. The permittee shall maintain complete records, logs, reports of internal and third party audits and documents related to the CMS on site for a period of 5 years.

4. For new facilities, a CMS shall be prepared and submitted to the Department for review and approval prior to fish being introduced into the facility.

The permittee shall report any known or suspected escapes of more than 50 fish within 24 hours to the Maine Dept of Marine Resources Bureau of Sea-Run Fisheries and Habitats at 207-941-9973 (Pat Keliher and Joan Trial), Maine Department of Inland Fisheries and Wildlife at 207-287-5202 (Commissioner's office), USFWS Maine Field Office at 207-827-5938, and NOAA Fisheries Maine Office at 207-866-7379. During off-hours, the reports can be called to 800-432-7381.

O. 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, or any other pertinent test results or information obtained during the term of this permit, the Department may, at any time and with notice to the permittee, modify this permit to; 1) include effluent limits necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded, (2) require additional effluent and or ambient water quality monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information including, but not limited to, new information from ambient water quality studies of the receiving water.

P. SEVERABILITY

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: September 13, 2010
Revised: October 15, 2010

MEPDES PERMIT NUMBER: #ME0110116
MAINE WDL NUMBER: #W-004701-6F-E-R

NAME AND ADDRESS OF APPLICANT:

ATLANTIC SALMON OF MAINE, LLC
P.O. Box 380
Oquossoc, Maine 04964

COUNTY: FRANKLIN

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

ATLANTIC SALMON OF MAINE, LLC
P.O. Box 380
Oquossoc, Maine 04964

RECEIVING WATER / CLASSIFICATION: Rangeley River
Class A, Tributary to Mooselookmeguntic Lake

COGNIZANT OFFICIAL AND TELEPHONE NUMBER:

Greg Lambert (207) 446-6295, greg.lambert@cookeaqua.com
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1. APPLICATION SUMMARY

The applicant has applied for a renewal of Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0110116 / Maine Waste Discharge License (WDL) #W-004701-5Q-B-R, which was issued on December 30, 2005 for a five-year term. The MEPDES Permit / Maine WDL approved the discharge of a monthly average of 12 million gallons per day (MGD) of fish hatchery wastewater to the Rangeley River, Class A and a tributary to Mooselookmeguntic Lake, from a commercial Atlantic salmon hatchery and rearing facility in Rangeley (Oquossoc), Maine.

2. PERMIT SUMMARY

a. Regulatory - On 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 discharges. That decision was subsequently appealed. On August 8, 2007, a panel of the U.S. First Circuit Court of Appeals ruled that Maine's environmental regulatory jurisdiction applies uniformly throughout the State. From January 12, 2001 forward, the program has been referred to as the MEPDES program and permit #ME0110116 (same as NPDES permit number) utilized as the primary reference number for the Rangeley facility.

b. Terms and conditions – This permitting action is similar to the December 30, 2005 MEPDES Permit / Maine WDL and subsequent permit modifications and revisions in that it is carrying forward all previous terms and conditions with a few exceptions. This permitting action is different in that it is:

1. revising minimum monitoring frequency requirements for formalin;
2. updating requirements related to proper use and record keeping of therapeutic agents and disinfecting/sanitizing agents; and
3. establishing requirements to notify the Department and apply for permit revision if the facility lease agreement and/or conditions governing the minimum volume of water passed to the Rangeley River lapse or change.

c. History: The most recent relevant regulatory actions include the following:

July 27, 1983 – The Maine Board of Environmental Protection issued WDL #4701 to Steve Swartz and Sam Hutchinson for the discharge of 0.45 MGD of treated fish hatchery wastewater from a former Maine Department of Inland Fisheries and Wildlife fish hatchery in Oquossoc (Rangeley) to the Rangeley River, Class B-1. The WDL was issued for a one-year term.

December 12, 1986 – The Department issued WDL #W-004701-41-A-R to Downeast Aquaculture for the discharge of a maximum of 15.5 MGD of fish hatchery and rearing facility wastewater to the Rangeley River, Class B, in Rangeley. The WDL was issued for a five-year term.

May 13, 1987 – The Department issued # W-004701-41-B-M, transferring the WDL for the Rangeley facility to Atlantic Salmon of Maine, Inc. The term of the WDL remained the same as in #W-004701-41-A-R.

2. PERMIT SUMMARY (cont'd)

December 18, 1987 - ASM applied to the USEPA for a NPDES permit for the Rangeley facility discharge, which was accepted by USEPA as complete on February 11, 1988 and assigned #ME0110116. USEPA issued a draft NPDES permit on June 27, 1989, but issuance of the final permit was contingent upon the Department certifying that the permit met applicable sections of the Federal Water Pollution Control Act and State laws. The Department has no evidence that the NPDES permit was ever issued.

September 30, 1989 – The Maine legislature amended the water classification statute (38 MRSA, Section 467.1.C, P.L. 1989 Chapter 228) to upgrade a portion of the Rangeley River from Class B to Class A. The upgraded section included the point at which the Rangeley hatchery discharges its effluent.

November 15, 1989 – The Department's Division of Environmental Assessment recommended to the Department's Division of (Water) Licensing and Enforcement that a pending draft WDL include a 125 kg/year (275 lb/year) phosphorus limit to prevent an increase in the trophic state of Mooselookmeguntic Lake. Reportedly, this recommendation was previously made in 1986, but mistakenly omitted from the 1987 transfer order.

May 24, 1990 – The Maine Department of Inland Fisheries and Wildlife issued a letter informing MEDEP that MDIFW discovered algae and (sphaerotilus) fungus in the Rangeley River and identified the cause as the ASM Rangeley facility.

April 17, 1992 – USEPA issued draft NPDES permit #ME0110116 for the Rangeley facility. USEPA and the Department then issued a joint public notice of a draft NPDES permit for the facility's discharge on November 7, 1992. Subsequent correspondence indicates that USEPA provided additional time for ASM to conduct ambient and effluent monitoring prior to issuance of the permit. The Department has no evidence that the NPDES permit was ever issued.

January 24, 1996 - The Department interpreted the Legislature's intent in its September 30, 1989 upgrade of the Rangeley River in Rangeley to "grandfather" the discharge existing at that time from the Class A requirement that the effluent be of equal or better quality than the receiving water. See Fact Sheet Section 6 for clarification of this grandfathering.

December 30, 2005 – The Department issued MEPDES Permit #ME0110116 / Maine WDL #W-004701-5Q-B-R to ASM Rangeley for the discharge of a monthly average of 12 MGD of fish hatchery and rearing facility wastewater to the Rangeley River in Rangeley, Class A. The Permit / WDL was issued for a five-year term.

April 6, 2006 - The Department issued an Administrative Modification of MEPDES Permit #ME0110116 / Maine WDL #W-004701-5Q-B-R for a one-time use of the therapeutant SLICE (Emamectin) at the Rangeley facility, establishing use restrictions and requirements for Whole Effluent Toxicity (WET) testing and pursuant to a SLICE Testing Work Plan dated April 4, 2006

2. PERMIT SUMMARY (cont'd)

October 26, 2006 - The Department issued an Administrative Modification of the MEPDES Permit / Maine WDL for use of SLICE on Atlantic salmon smolts housed at the facility and ultimately for the discharge the therapeutant in its wastewater discharge to the Rangeley River (Class A). The use was conducted as part of the USFDA Federal Investigational New Animal Drug (INAD) program #10-418. The Administrative Modification established use restrictions within the Rangeley (Oquossoc) facility based on use of the therapeutant in the spring of 2006.

October 31, 2006 – The Department issued an Administrative Modification of MEPDES Permit #ME0110116 / Maine WDL #W-004701-5Q-B-R revising the deadline for compliance with more stringent annual phosphorous mass limits from September 1, 2008 to January 1, 2009.

June 27, 2007 – The Department issued a Minor Revision of MEPDES Permit #ME0110116 / Maine WDL #W-004701-5Q-B-R, to eliminate permit requirements for annual macroinvertebrate biomonitoring. The Department's review of 2006 macroinvertebrate monitoring data indicated that the Rangeley River meets Class A aquatic life standards.

October 6, 2008 – The Department issued Minor Revision #W-004701-5Q-C-M / MEPDES Permit #ME0110116 to revise effluent formalin limitations based on newly obtained toxicity data and a revision of the Department's best professional judgement of ambient water quality criteria.

July 20, 2009 – The Department issued Minor Revision #W-004701-5Q-D-M / MEPDES Permit #ME0110116 to revise effluent BOD_5 and TSS minimum monitoring frequency requirements from once / week to twice / month.

May 17, 2010 – ASM Rangeley submitted an Alternative Discharge Study for the Rangeley facility, which verified earlier findings of no practical alternative to the wastewater discharge to the Rangeley River.

May 26, 2010 – ASM Rangeley submitted a timely application for renewal of its MEPDES Permit / WDL. The application was assigned MEPDES Permit #ME0110116 / WDL #W-004701-6F-E-R.

d. Source Description/ Facility Operation:

The Rangeley (Oquossoc) facility was originally constructed as a federal salmon hatchery in the early 1900s. In the 1950s, the facility was acquired and reconstructed by the Maine Department of Inland Fisheries and Wildlife for use as a fish hatchery and rearing facility. Throughout its history, the facility has alternated between periods of use and dormancy. The current ASM Rangeley facility is a salmon farming operation that receives and incubates Atlantic salmon eggs, ships them to other facilities for hatching and initial development, then reacquires fry for rearing to smolts over a 10-16 month process for use ultimately in human consumption. ASM Rangeley reports the maximum quantity of fish on station entails 600,000 first-year salmon, weighing 110,000 pounds.

2. PERMIT SUMMARY (cont'd)

Influent Water:

All influent water for the ASM facility is obtained from the Rangeley River, which outfalls from Rangeley Lake. All inlet pipes originate at the Rangeley Dam and draw water from a depth of 14-18 feet, depending on lake level. Water temperatures range from 0.5 degrees Celsius (˚C) to 27C (33 degrees Fahrenheit (˚F) to 80˚F). One 20-inch diameter cast iron pipe draws on the upstream side of the Rangeley Dam. The 20-inch line is fitted with a coarse screen of expanded steel mesh. The 20-inch line extends 300 feet to a main headbox valve house. Four other pipes originate at the Rangeley Dam from a 23-foot by 6-foot by 16-foot (16,500-gallon) gallery with one trash screen and a boom on the upstream side of the dam, and a second coarse screen in the gallery keyway. This second screen can be hoisted up inside the dam for a periodic cleaning. The four pipes that flow from this gallery are: one 8-inch diameter cast iron, two 8-inch diameter HDPE, and one 12-inch diameter cast iron pipe. The two 8-inch HDPE pipes are coupled with one 16-inch HDPE pipe approximately 30 feet down from the dam. All mentioned pipes run to the main headbox valve house and can be used to fill the headbox pump station.

All influent water flows into the approximately 105,000-gallon (20-foot by 35-foot by 20-foot) main headbox. This water can fill the main headbox by gravity or can be pumped by one of two 35 horsepower Cascade pumps. The water is pumped into the main headbox to increase the total head by 2 feet for increased flows when gravity is insufficient to meet the growout fields and hatchery demand. The water is then distributed to the facility, which includes the hatchery operations and growout fields. Influent water volumes in excess of ASM Rangeley's monthly average discharge flow of 12 MGD (8,333 GPM) are diverted to the Rangeley River via piping prior to contact with any fish or eggs at the ASM Rangeley facility.

Hatchery Operation:

ASM's hatchery operation is housed in two locations, the hatch house and the cold water egg room, and consists of EWOS troughs, Heath tray stacks, and upwellers. All incoming water is sent from the main headbox to two 25-50 micron bag filters. The filtered water is then sent through a high intensity ultraviolet (UV) filter system comprised of 96 UV tubes before being pumped to a degasser unit and four hatchhouse headboxes with capacities of 55 gallons (2), 125 gallons (1), and 175 gallons (1), each with the capability of using heated, ambient temperature, or mixed water. During this cycle ASM has the option of increasing the temperature by the addition of heated water ranging from 1˚C to 8˚C (33˚F to 46˚F) for egg incubation.

In November - December, green eggs are brought to ASM Rangeley from the Cobscook Bingham hatchery, UMCCAR Franklin hatchery, and/or ASM's egg suppliers in the Maritime Provinces and incubated in EWOS troughs, Heath tray stacks and upwellers. In the hatch house, ASM has ninety-two fiberglass EWOS troughs (with 4 bins/trough), 11 Heath tray stacks (16 trays/stack, total 176 trays), and five 3-foot tall by 1-foot diameter (17.5-

2. PERMIT SUMMARY (cont'd)

gallon) circular plastic upwellers. In the hatch house, water is provided at ambient temperature through December, then heated in January. The water can be heated up to 8˚C depending on the egg development required. In the cold water egg room, ASM Rangeley has 20 Heath tray double stacks (16 trays/stack, total 320 trays) and 10 Heath tray single stacks (8 trays/stack, 80 trays) with water provided only at ambient temperature. ASM Rangeley no longer hatches salmon eggs on site nor provides fry first-feeding. Instead, eyed (incubated) eggs are shipped to the rearing facilities at Cobscook Bingham, Phoenix Gardner Lake, facilities in the Maritime Provinces, and elsewhere.

All effluent water from the hatchery operations is pumped to a heat exchange unit to reclaim some of the water temperature, if heating is being performed.

Rearing Operations:

ASM Rangeley's current operation involves acquiring salmon fry (5-10 grams) in June of each year from the Cobscook Bingham facility. The fry are housed in the facility's outside tank fields.

Upper 6-Meter (M) Tank Field: ASM's upper 6M tank field consists of twenty 6-meter diameter by 2-meter deep circular fiberglass (15,000-gallons each) tanks. Water is provided to the upper 6M-tank field through one 18-inch diameter water line from the main headbox. Each 6M tank is fitted with 4-inch inlet valves and operates between 45-90 gallons per minute (gpm) depending on season and biomass. The 6M tanks are operated with a maximum of 1,600 kg (3,527 lbs) of fish per tank.

Lower 6M Tank Field: ASM's lower 6M tank field consists of sixteen 6-meter diameter by 2-meter deep circular fiberglass (15,000-gallons each) tanks. Water is provided to the lower 6M tank field through two pipes from the main headbox. The 12-inch diameter cast iron pipe runs approximately 350 ft to supply water to six of the tanks. A 16-inch diameter HDPE pipe supplies water to the remaining ten 6M tanks. The operating flows are similar to the upper field and range between 45-90 gpm depending on season and biomass. Flows are controlled by 4-inch valves on each tank. The 6M tanks are operated with a maximum 1,600 kg (3,527 lbs) of fish per tank.

ASM Rangeley raises the fry to parr and smolt stage. During October – November and/or the following May - June, the salmon smolts, which can be up to 75-180 grams and 8-10-inches long, are transferred to ASM's marine aquaculture netpens in Eastport, Lubec, near Mount Desert Island, Machiasport, and/or Jonesport, As of the date of this Order, ASM states that the maximum amount of feeding occurs during September - October, consisting of approximately 450 pounds of food per day.

2. PERMIT SUMMARY (cont'd)

e. Wastewater Treatment:

Wastewaters from the hatchery operations is routed to a 27-inch diameter SDR drainpipe. Wastewater from the upper 6M tank field is discharged through one 12-inch diameter and two 18-inch diameter SDR pipes, which combine their flows into the same above referenced 27-inch diameter drainpipe. Wastewater from the lower 6M tank field is discharged through two 10-inch diameter, one 12-inch diameter, and one 15-inch diameter SDR pipe, which combine their flows into one 24-inch diameter SDR drainpipe. All wastewater from the ASM facility flows via gravity to two 60-micron rotary drum filters housed in a new (2008) filter building. The drum filters are automatically backwashed with water from the main headbox, sending accumulated solids and drum washwater to a 1,470-gallon concrete sludge storage tank. The sludge storage tank is managed pursuant to Permit Special Condition I, periodically emptied by a local septage hauler and disposed of off-site. The permittee also utilizes an ORP meter to indicate when materials must be removed in response to anaerobic conditions that may lead to increased dissolved phosphorus in the supernatant that rejoins the facility waste-stream.

Treated facility wastewater is discharged through a 48-inch rectangular pipe into the Rangeley River, which flows to Mooselookmeguntic Lake.

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 467.1.C classifies the Rangeley River at the point of discharge as a Class A water. Maine law, 38 M.R.S.A., Section 465.2, describes the standards for Class A waters. The Rangeley River is also a tributary to Mooselookmeguntic Lake, a class GPA water as defined in 38 M.R.S.A., Section 465-A.

4. RECEIVING WATER QUALITY STANDARDS (cont'd)

On September 30, 1989, the Maine Legislature amended the water classification statute to upgrade the portion of the Rangeley River including the Rangeley hatchery's point of discharge from Class B to Class A. On January 24, 1996, the Department interpreted the Legislature's intent to "grandfather" the discharge existing at that time from the Class A requirement that the effluent be of equal or better quality than the receiving water. See Fact Sheet Section 6 for clarification of this grandfathering.

Maine law, 38 M.R.S.A., Section 465.2(C) states that discharges into Class A waters *"licensed prior to January 1, 1986, are allowed to continue only until practical alternatives exist"*. Maine law, 38 M.R.S.A., Section 464.4.A(§§2,3,4) states, "*notwithstanding section 414-A, the department may not issue a water discharge license for*…(a) *new direct discharge of domestic pollutants to tributaries of Class-GPA waters;…any discharge into a tributary of GPA waters that by itself or in combination with other activities causes water quality degradation that would impair the characteristics and designated uses of downstream GPA waters or causes an increase in the trophic state of those GPA waters;* (or a)… *discharge of pollutants to waters of the State that imparts…properties that cause those waters to be unsuitable for the designated uses and characteristics ascribed to their class"*.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2010 draft *Integrated Water Quality Monitoring and Assessment Report* (DEPLW-1187), prepared pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act contains lists of waters in Maine that are attaining water quality standards as well as those that are impaired. The report lists a 1.3 mile segment of the *Rangeley River from Rangeley Lake Dam to Mooselookmeguntic Lake in* Oquossoc, Class A, in Category 3, Rivers and Streams with Insufficient Data or Information to Determine if Designated Uses are Attained (One or More Uses may be Impaired) (Assessment Unit ID ME0104000101_403R_01). It further states, "*Rangeley River – Cooke Oquossoc Hatchery-final hatchery permit issued 12/30/05; exp date 12/30/10; Lake outlet effect confounds interpretation of effect of salmon hatchery*", with a scheduled monitoring date of 2013.

All freshwaters in Maine are listed as only partially attaining the designated use of recreational fishing due to a fish consumption advisory (Category 5-C). The advisory was established in response to elevated levels of mercury in some fish caused by atmospheric deposition.

It is noted that the Department's review of macroinvertebrate monitoring data collected by the permittee in 2006 indicated that the Rangeley River meets Class A aquatic life standards. The Department has no information that ASM Rangeley causes or contributes to the non-attainment conditions listed in the draft 303(d)/305(b) report indicated above.

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…*" 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.

At the time of the previous permitting action, the Department undertook to revise its wastewater discharge permitting program for fish hatcheries and rearing facilities to provide for establishment of scientifically valid and consistently applied effluent limitations, monitoring and operational requirements based on the Department's best professional judgement (BPJ) of best practicable treatment (BPT) or site specific water quality conditions. This permitting action represents a continuance of that process based on observations and analyses conducted for ASM Rangeley and other facilities since issuance of the previous permitting actions.

In a January 24, 1996 letter, the Department addressed the issue of applicable effluent and water quality standards for those licensed discharges existing when a receiving water classification is upgraded from Class B to Class A, as was the case for the ASM Rangeley facility. Class A water standards (38 MRSA, Section 465.2(C)) require that the effluent from direct discharges licensed after January 1, 1986, must "be equal to or better than the existing water quality of the receiving waters" and that discharges licensed before January 1, 1986, "are allowed to continue only until practical alternatives exist". Based on the Department's 1996 letter and as clarified in 2004, for those existing licensed discharges the Department will apply the more stringent of the previous discharge license effluent limits, newly calculated BPT or water quality based effluent limits, or past demonstrated effluent performance, in lieu of the "equal to or better" standard. The aquatic life, bacteria, and dissolved oxygen standards applicable to the previous discharge license (Class B standards) were carried forward until the receiving water met Class A standards. Class A standards now apply to the Rangeley River in the vicinity of the ASM Rangeley discharge based on the results of macroinvertebrate biomonitoring conducted in 2006. The permittee must conduct an Alternative Discharge Study at least prior to each relicensing to determine if the discharge can be eliminated or if there is treatment technology and/or practices available that will result

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

in improved effluent and receiving water quality, ultimately resulting in attainment of Class A standards. All new discharges of pollutants or increases in pollutants in a permitted facility's existing discharge, excluding flow, must meet all Class A standards and "*be equal to or better than the existing water quality of the receiving waters*". It is noted that these standards will apply to any future requests to incorporate methods or materials onsite that may result in the discharge of new pollutants or increased amounts of permitted pollutants. Accordingly, if ASM Rangeley wishes to increase the number and mass of fish on station, it will likely need to provide additional wastewater treatment that will hold effluent quality constant.

a. Flow: The previous permitting action established a monthly average discharge limit of 12 MGD, carried forward in this permitting action. The required minimum measurement frequency of once daily is also carried forward, consistent with Department guidelines for wastewater treatment facility discharges.

A review of the Discharge Monitoring Report (DMR) data for the ASM Rangeley facility for the period of January 2006 through May 2010 indicates the following.

EFFLUENT FLOW

Value	Limit	Minimum	Maximum	Average	# Values
Monthly Avg.	12 MGD	2.46 MGD	11.5 MGD	6.19 MGD	48

b. Dilution Factors: The Department has made the determination that dilution factors associated with the discharges shall be derived in accordance with freshwater protocols established in Department Regulation Chapter 530, *Surface Water Toxics Control Program*, October 2005 and methods for low flow calculation contained in Estimating Monthly, Annual, and Low 7-day, 10-year Streamflows for Ungaged Rivers in Maine (Scientific Investigations Report 2004-5026, US Department of Interior, US Geological Service). To calculate potential effects from a facility's effluent discharge, the Department utilizes the receiving water's available dilution during low flow conditions. The ASM facility discharges its treated effluent into the side of the Rangeley River. Typically, these types of discharges do not achieve rapid and complete mixing with the receiving water since initial dilution is based on mixing resulting from the momentum of a discharge as it exits a discharge pipe (jet effect) as well as the dispersion of the effluent plume as it rises to the surface of the receiving water.

The Rangeley Lake dam, associated structures, and the ASM Rangeley property itself, were previously owned by Union Water and Power Company (UWP). The dam is now owned by Florida Power and Light Company, subject to reservation of UWP's rights and responsibilities as landlord of the ASM Rangeley facility. Operation of the dam controls the amount of water available to ASM Rangeley and the Rangeley River and thus the available dilution. Pursuant to a November 26, 1996 lease agreement between ASM and UWP, "*Landlord acknowledges that at least 12,000 gallons per minute of water is*

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

required for the operation of the Hatchery and Landlord agrees to furnish this flow to the Leased Premises (and at all times to release into the river below the dam a quantity of water at least equal to the quantity of water actually furnished from time to time by Landlord from said Dam to the Leased Premises…". This lease agreement was reissued on November 18, 2005 and shall remain in place through December 31, 2006 and potentially through four additional five-year renewal periods provided in the lease agreement. This agreement is interpreted by the involved parties to require the landlord to provide necessary flows up to 12,000 gpm (17.28 MGD) to ASM Rangeley and to provide a minimum of 12,000 gpm (17.28 MGD) to the Rangeley River. As noted in Section 2D above, influent water volumes in excess of ASM Rangeley's monthly average discharge flow of 12 MGD (8,333 GPM) are diverted to the Rangeley River via piping prior to contact with any fish or eggs at the ASM Rangeley facility. This additional influent flow of 5.28 MGD (3,667 GPM) is added to the passed flow of 17.28 MGD (12,000 GPM) to provide a total flow of 22.56 MGD (15,667 GPM) available for dilution of the facility effluent. Based on this information and using the monthly average discharge limitation of 12 MGD (8,333 gpm), the Department has calculated acute (1Q10), chronic (7Q10), and harmonic mean dilution factors for ASM Rangeley as follows:

22.56 MGD + 12 MGD / 12 MGD = 2.9:1

Chapter 530.4(B)(1) states that analyses using numeric acute criteria for aquatic life must be based on ¼ of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone. The regulation goes on to say that where it can be demonstrated that a discharge achieves rapid and complete mixing with the receiving water by way of an efficient diffuser or other effective method, analyses may use a greater proportion of the stream design, up to including all of it. As stated above, ASM Rangeley's discharge does not achieve rapid and complete mixing, thus the Department is utilizing the default stream flow of ¼ of the 22.56 MGD 1Q10 flow pursuant to Chapter 530 in acute evaluations, as follows:

5.64 MGD (Mod. Acute ¼ 1Q10) + 12 MGD / 12 MGD = 1.47:1

The dilutions calculated above and water quality based effluent limits described below are only accurate as long as the lease agreement between Union Water and Power Co.(UWP) and ASM Rangeley continues as described above, including the minimum flow volumes to be provided to the Rangeley River and the ASM Rangeley facility. In the event that the facility lease agreement and/or conditions governing the minimum volume of water passed to the Rangeley River by UWP and/or ASM Rangeley lapse or change, the permittee shall notify the Department within one working day (24-hours) of discovery and shall apply for revision of the MEPDES Permit / Maine WDL, as required in Permit Special Condition G.

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

c. Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS): The previous permitting action established monthly average and daily maximum concentration limits of 6 mg/L and 10 mg/L respectively for BOD_5 and TSS based on Department BPJ of Best Practicable Treatment (BPT), which are being carried forward in this permitting action. These limits were based on recommendations included in USEPA's 2002 proposed draft National Effluent Guidelines for TSS from fish hatchery wastewater receiving a secondary level of treatment, the Department's long-standing view of the relationship with and significance of BOD_5, and consideration of effluent quality from facilities utilizing the Department's BPJ of minimum treatment technology. Mass limits were determined pursuant to the Department's upgrade "grandfathering" determination described in Fact Sheet Section 6. Mass values were calculated using the previously established net concentration limits as converted to gross limits and the previous discharge flow limit, then compared to values calculated using current concentration and flow limits. The former method provided the more stringent mass limits, monthly average limits of 379 lbs/day of BOD and 249 lbs/day of TSS and daily maximum limits of 415 lbs/day for BOD and 285 lbs/day for TSS, which were established in lieu of the "equal to or better" standard for Class A waters. Pursuant to Class A water standards, all new discharges of pollutants or increases in pollutants in a permitted facility's existing discharge must meet all Class A standards and "*be equal to or better than the existing water quality of the receiving waters*". Accordingly, the previously established BOD_5 and TSS mass limits are being carried forward in this permitting action. It should be noted, if ASM Rangeley wishes to increase the number and mass of fish on station, it will likely need to provide additional wastewater treatment that will hold effluent quality constant.

A review of the DMR data for the ASM Rangeley facility for the period of January 2006 through May 2010 indicates the following.

BOD MASS

Value	Limit	Minimum	Maximum	Average	# Values
Monthly Avg.	379 lbs/day	30 lbs/day	480 lbs/day	146 lbs/day	42
Daily Max.	415 lbs/day	60 lbs/day	951 lbs/day	192 lbs/day	42

2 exceedences of monthly average limit
2 exceedences of daily maximum limit

BOD CONCENTRATION

Value	Limit	Minimum	Maximum	Average	# Values
Monthly Avg.	6 mg/L	<2 mg/L	5.8 mg/L	<2.7 mg/L	42
Daily Max.	10 mg/L	<2 mg/L	9.9 mg/L	<3.5 mg/L	42

TSS MASS

Value	Limit	Minimum	Maximum	Average	# Values
Monthly Avg.	249 lbs/day	28 lbs/day	192 lbs/day	76 lbs/day	43
Daily Max.	285 lbs/day	30 lbs/day	277 lbs/day	104 lbs/day	43

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

TSS CONCENTRATION

Value	Limit	Minimum	Maximum	Average	# Values
Monthly Avg.	6 mg/L	<1 mg/L	3.9 mg/L	<1.5 mg/L	43
Daily Max.	10 mg/L	<1 mg/L	9.1 mg/L	<2.1 mg/L	43

The previous permitting action established minimum monitoring requirements of once per week for effluent BOD_5 and TSS, which were modified to twice per month in July 2009, based on revised Department BPJ of monitoring frequencies necessary to more accurately characterize facility effluent conditions. This permitting action carries forward the twice per month minimum monitoring frequency requirement.

d. Total Phosphorus and Orthophosphate: Phosphorus is a nutrient that encourages the growth of plants such as planktonic algae and macrophytes in northern waters. Oxygen levels in the water are reduced in the early morning hours due to extended nighttime respiration of algae. The decomposition of excess plant material further reduces the amount of available oxygen in the water through biochemical oxygen demand. Lowering oxygen levels in a receiving water impacts the aquatic life in that water, making it unfit for some forms of life. Further, enrichment from excess nutrients, such as phosphorus, can result in reductions in aquatic macro-invertebrate species diversity, an indicator of the overall health of a receiving water. Excess phosphorus can also result in undesirable aesthetic conditions in a receiving water, impacting that water's ability to meet standards for maintaining recreational use, a designated use by law. Any increase in the phosphorus content in a receiving water has the potential to cause or contribute to non-attainment of classification standards. Phosphorus concerns for the ASM Rangeley facility are two-fold in that the facility discharges its effluent to a Class A river that serves as a tributary to a GPA water. Both types of waters are sensitive to these pollutants, but must be managed differently. Pursuant to Maine law (38 MRSA § 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*". The amount of any pollutant, including phosphorus, in a discharge must not contribute, now or in the future, to an increase in the trophic state of the lake or otherwise cause or contribute to nonattainment of the class standards.

Lake Concerns: In implementation of this standard, which is also applied to changes of land use in lake watersheds in section 465-A, the Department has recognized (1) that most lakes can accept some small increment of increased phosphorus load before they will demonstrate a perceivable increase in trophic state, and (2) that this increment would more likely be the result of the cumulative loading from a number of sources and not be provided by one source. This is the basis for the phosphorus technical guide (Phosphorus Control in Lake Watersheds: A Technical Guide for Evaluating New Development. DEP, 1992), which is used under Department Regulation, Chapter 500, Stormwater Management, the Site Location of Development Law (38 MRSA, §§ 481-490), and many town land use ordinances to define a maximum allowable increase in phosphorus load to

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

each lake which will not risk a perceivable increase in trophic state; and to distribute that increase among proposed and anticipated development activities in the lake's watershed.

The 1992 phosphorus technical guide defines the maximum increment of increased phosphorus content that will not risk a perceivable increase in lake trophic state. This "acceptable increase in phosphorus concentration" is a function of the lake's current water quality, its potential for developing a significant phosphorus recycling problem, and whether or not it supports, or has the potential to support, a coldwater fishery. An in-depth description of the model assumptions and methodology is provided in the Fact Sheet of the previous permitting action.

Atlantic Salmon of Maine, Rangeley River, tributary to Mooselookmeguntic Lake

According to the Department's Division of Watershed Management at the time of development of the previous permitting action, Mooselookmeguntic Lake is a large, mesotrophic, coldwater fishery lake. Its upper basin, also known as Cupsuptic Lake has a higher trophic state than the main basin. Recent Kendall Tau trend analysis of both basins indicate a trend of increasing trophic state expressed by a declining trend of secchi disc transparency. The trend in the main, lower basin is significant at the 95% level. The water quality category of the lake is moderate/sensitive and the level of protection high, resulting in an acceptable increase in lake phosphorus concentration of 0.75 ppb. The allowable increase in phosphorus load to the lake is 962.3 kg. Growth rate in the watershed as a whole is low, although it is comparatively high in the town of Rangeley. The watershed growth rate as a whole is low so the point source allocation is 20% and the resulting allocated load is 0.20 X 962.3 kg/yr or 192.4 kg/yr (424 lbs/year). Discharge data from the hatchery indicates substantially higher phosphorus loading than this limit would allow, so significant reduction in phosphorus discharge will be required.

The Department recognizes that the water source, the Rangeley River, contains ambient levels of phosphorus that would naturally enter Mooselookmeguntic Lake. The Department calculated ASM Rangeley's total allowable phosphorus discharge, including background levels of phosphorus in the source waters, to be 660 lbs/yr (299.5 kg/yr). These limits became effective on January 1, 2009 (see Fact Sheet Section 2c) and are being carried forward in this permitting action. A daily maximum mass limit is not being established to provide ASM with management flexibility to meet the yearly mass limits. However, this permitting action is continuing the requirement for ASM Rangeley to report the mass of phosphorus discharged per month to provide for short term phosphorus management, as well as to identify either trends or effluent fluctuations related to seasonal and/or operational changes. The monitoring frequency of once per week is designed to ensure that representative facility and effluent conditions are captured and is being carried forward based on the sensitivity of the receiving water.

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

River Concerns: In the previous permitting action, the Department established a seasonal monthly average phosphorus concentration limit based on a 0.035-mg/L BPJ instream ambient water quality (AWQ) threshold and ASM Rangeley's chronic dilution factor of 2.9:1. The resulting monthly average limit of 0.102 mg/L is being carried forward in this permitting action, as is a daily maximum concentration monitoring requirement. Based on Department research, the AWQ threshold of 0.035 mg/L corresponds to the maximum level at which algae blooms will not typically occur in a receiving river or stream under normal circumstances. As phosphorus is typically of concern under chronic discharge conditions, the 7Q10 dilution of 2.9:1 described in Fact Sheet Section 6b, Dilution Factors, is utilized in calculation of a water quality based effluent limit. In free flowing rivers and streams, phosphorus is typically a summer time concern for water quality. Therefore, the effluent concentration limits and monitoring requirements were in effect from June 1 through September 30 each year. A required minimum monitoring frequency of once per week was established based on the Department's BPJ of monitoring frequencies necessary to more accurately characterize facility effluent conditions. Each of these factors is carried forward in this permitting action.

Both the Rangeley River and Mooselookmeguntic Lake will receive phosphorus discharged from the Rangeley facility. Both receiving waters are sensitive to the effects of this pollutant, therefore the discharge must be managed according to receiving water specific needs. This permitting action is continuing annual phosphorus mass limits based on water quality specific needs in Mooselookmeguntic Lake and seasonal phosphorus concentration limits based on water quality specific needs in the Rangeley River. Limits and monitoring requirements are expressed in gross end-of-pipe values.

It should be noted that as the concentration and mass limits are calculated based on different receiving waters, compliance with the established concentration limit will not necessarily result in compliance with the established mass limit. The permittee will need to actively manage its phosphorus discharge to achieve compliance and prevent adverse impacts in the receiving waters. All new proposed discharges of pollutants or increases in pollutants in the existing discharge, excluding flow, must meet all Class A standards. Therefore, if ASM wishes to increase the number and mass of fish on station, it will likely need to provide additional wastewater treatment that will hold effluent quality constant.

The previous permitting action established a one year monitoring requirement for monthly average and daily maximum orthophosphate mass and concentration. Orthophosphate is the portion of total phosphorous that is readily available for uptake by aquatic plants. The requirement was fulfilled and is not being carried forward in this permitting action.

A review of the DMR data for the ASM Rangeley facility for the period of January 2006 through May 2010 indicates the following.

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

PHOSPHORUS MASS

Value	Limit	Minimum	Maximum	Average	# Values
lbs/month	report lbs / month	1.3 lbs / month	339.5 lbs / month	72.1 lbs / month	43
lbs/year	1682 lbs/year 660 lbs/year	372 lbs/yr	1728 lbs/yr	881 lbs/yr	4

1 exceedence of annual phosphorous mass limit

PHOSPHORUS CONCENTRATION

Value	Limit	Minimum	Maximum	Average	# Values
Monthly Avg.	report mg/L 0.1 mg/L	0.005 mg/L	0.118 mg/L	0.047 mg/L	43
Daily Max.	report mg/L report mg/L	0.01 mg/L	0.190 mg/L	0.063 mg/L	43

1 exceedence of monthly average phosphorus concentration limit

ORTHO-PHOSPHORUS MASS

Value	Limit	Minimum	Maximum	Average	# Values
Monthly Avg.	report lbs/day	3.25 lbs/day	4.05 lbs/day	4.8 lbs/day	3
Daily Max.	report lbs/day	4.8 lbs/day	8.0 lbs/day	6.2 lbs/day	3

ORTHO-PHOSPHORUS CONCENTRATION

Value	Limit	Minimum	Maximum	Average	# Values
Monthly Avg.	report mg/L	0.039 mg/L	0.073 mg/L	0.0052 mg/L	3
Daily Max.	report mg/L	0.061 mg/L	0.1 mg/L	0.08 mg/L	3

For the purpose of this permitting action the Department is continuing to utilize the BPJ AWQ threshold for phosphorus described above. It is noted that the Department is currently undergoing rulemaking to establish new nutrient criteria. The adoption of Department Rule Chapter 583, Use Attainment Evaluation Using Nutrient Criteria for Surface Waters, may, or may not, effect future limits for phosphorus.

e. Fish on Hand: This permitting action is carrying forward the reporting requirement for monthly average and daily maximum mass of fish on hand. This parameter is intended to assist both the Department and the permittee in evaluating management practices at the facility and trends in effluent quality and receiving water impacts. This permitting action is also carrying forward the required minimum monitoring frequency of once per week on a year round basis based on the Department's BPJ of the monitoring frequency necessary to more accurately characterize facility effluent conditions.

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

A review of the DMR data for the ASM Rangeley facility for the period of January 2006 through May 2010 indicates the following.

FISH ON HAND

Value	Limit	Minimum	Maximum	Average	# Values
Monthly Avg.	report lbs/day	966 lbs/day	106,220 lb/day	54,107 lb/day	43
Daily Max.	report lbs/day	4,822 lbs/day	120,557 lb/day	61,399 lb/day	43

f. Formalin: Fish hatcheries and rearing facilities commonly use formalin based biocides for therapeutic treatment of fungal infections and external parasites of finfish and finfish eggs. ASM Rangeley reports that approximately 450-gallons of formalin are used at the Rangeley facility annually. The previous permitting action established monthly average mass and concentration reporting requirements and daily maximum mass and concentration limits for formalin with a required minimum monitoring frequency requirement of once per week and guidance for calculating the levels of effluent formalin. For the previous permitting action, as existing studies revealed significant variability in formalin toxicity, the MEDEP undertook its own investigation to determine appropriate limitations, contracting with a commercial laboratory for Whole Effluent Toxicity (WET) testing on *Ceriodaphnia dubia* for 48-hour acute toxicity, pursuant to standard methods. Pursuant to MEDEP's long standing goal of 100% survival of the test species, Lotic Inc. identified a BPJ of ambient water quality criteria (AWQC) of 1.56 mg/L. The 1.56 mg/L BPJ of AWQC was multiplied by the facility's acute (1Q10) ambient to effluent dilution to calculate concentration limits under acute critical low flow conditions. Mass limits were calculated based on the projected maximum amount of formalin used per day, multiplied by a conversion factor of 9.13 lbs / gallon representing the weight of formalin. Though standard methods and assumptions were utilized in the Lotic study, realistically no facilities utilize formalin for 48-hours continuously. Thus, using the standard methods and assumptions appeared to overestimate impacts to aquatic life. In 2008, the Maine Department of Inland Fisheries and Wildlife (MDIFW) provided results of its study of acute toxicity at more targeted time frames of less than 48-hours, typical of rearing facility operations.

MDIFW utilized statistical "bootstrapping" to lend greater statistical significance to the data set. These results were reviewed by MEDEP and determined to represent a more appropriate means of establishing toxicity based effluent limits for formalin. Simultaneously, MEDEP revised its survival goals to 95% of test species to correspond with toxicity work conducted by USEPA. A MEDEP biologist noted, "*the basis for all of EPA's ambient water quality criteria for aquatic life (is) to protect 95% of the species*" and determined that using the 5^{th} percentile of MDIFW's 1-hour exposure data "*gives an equivalent amount of protection to aquatic life*." Based on this, in 2008 the Department developed a revised BPJ of AWQC of 45 mg/L based on a one hour treatment, typical of most hatchery and rearing facility discharges. Under emergency conditions, it is acknowledged that additional rearing structures may need to be treated, causing formalin discharges to extend beyond the typical one hour period. To accommodate this, the

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

Department also developed a BPJ of AWQC of 25 mg/L based on a maximum 24-hour treatment period. Such emergency treatments and discharges must be conducted no more frequently than once every four days to ensure the average formalin concentration does not exceed the 5th percentile level. Based on this research, the Department revised ASM Rangeley's MEPDES Permit / Maine WDL on October 10, 2008, revising hatchery and rearing station permit concentration limits for formalin.

In this permitting action, the Department is utilizing the same procedure to calculate formalin concentration limits. These calculations utilize a 1-hour exposure criteria typical of normal treatment operations, a 24-hour exposure criteria to accommodate emergency treatment conditions, and the 1.47:1 effluent to ambient acute dilution applicable to this facility and its receiving water.

45 mg/L (1-hour acute criteria) x 1.47 (effluent dilution) = 66 mg/L formalin limit.
25 mg/L (24-hour acute criteria) x 1.47 (effluent dilution) = 37 mg/L formalin limit.

The previously established daily maximum formalin mass limit of 49 lbs/day, developed pursuant to Department Rules, Chapter 523.6(f) based on projected use at ASM Rangeley, is being carried forward in this permitting action. It must be noted that the concentration and mass limits are derived separately and that compliance with one does not guarantee compliance with the other. Throughout the term of the permit, the permittee shall report the monthly average effluent formalin mass and concentration. Effluent values shall be determined through calculations, as described below. This permitting action is establishing effluent limitations and monitoring requirements for formalin, as this is the commonly used form, and not for formaldehyde. The Department is requiring ASM Rangeley to report therapeutic agents used at the facility that have the potential to be discharged to the receiving water. This permitting action revises the minimum monitoring frequency requirement to once per occurrence (each formalin use), consistent with Department BPJ and requirements for other facilities within this industry.

A review of the DMR data for the ASM Rangeley facility for the period of January 2006 through May 2010 indicates the following.

FORMALIN MASS

Value	Limit	Minimum	Maximum	Average	# Values
Monthly Avg. 1-hr treatment 24-hr treatment	 report lbs/day report lbs/day	1.4 lbs/day	48.4 lbs/day	26.6 lbs/day	32
Daily Max. 1-hr treatment 24-hr treatment	 49 lbs/day 49 lbs/day	15.0 lbs/day	48.4 lbs/day	34.5 lbs/day	32

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

FORMALIN CONCENTRATION

Value	Limit	Minimum	Maximum	Average	# Values
Monthly Avg. 1-hr treatment 24-hr treatment	 report mg/L report mg/L	 0.016 mg/L	 31.5 mg/L	 10.2 mg/L	 32
Daily Max. 1-hr treatment 24-hr treatment	 66 mg/L 37 mg/L	 3.75 mg/L	 35.3 mg/L	 14.1 mg/L	 32

Effluent levels of formalin can be calculated based on the amount of formalin used at the facility for hatchery, rearing, and broodstock functions and the dilution available in large wastewater settling structures and through mixing in the total facility waste-stream. Previously, the Department developed methods for calculating effluent formalin concentrations and mass values utilizing the varying treatment concentrations in the different facility functions and various internal dilutions provided within the facility. In this permitting action, the Department is providing a more simplified recommendation that utilizes the total mass of formalin used for all functions during the treatment period and the dilutions described above during the same time period. The facility may propose alternative methods for Department review and approval. Effluent formalin values must be calculated upon each use at the facility.

In this example, a theoretical facility adds approximately 0.172-gallons (650 ml) of undiluted formalin directly to each line of hatchery egg troughs to achieve the desired dose during a 15-minute treatment period. The hatchery facility uses a maximum of 6 lines of egg troughs for treatment at a time. The hatchery facility wastewater joins with the total facility wastewater prior to discharge to the receiving water. With a total facility discharge flow of 3.0 MGD, the flow during the 15-minute treatment period equates to 31,250-gallons (3.0 MGD / 24-hours / 4) available for dilution of the 1.03 gallons of formalin administered (0.172 gal x 6 troughs). The combined wastewater flow is then discharged to the receiving water. The end of pipe concentration from egg treatments can be calculated as follows, using 1 million parts per million to provide for the concentration of undiluted formalin.

31,250-gal wastewater / 1.03 gal formalin = 30,340:1 dilution
1,000,000 ppm (undiluted) formalin / 30,340 = 33 ppm formalin discharged

For treatments on fish in rearing structures, the same facility adds approximately 6-gallons of undiluted formalin at the head of raceway pools by drip and allows it to flow through the entire line over a one hour period. As in the example above, the rearing facility wastewater joins with the total facility wastewater prior to discharge to the receiving water. With a total facility discharge flow of 3.0 MGD, the flow during the one hour treatment period equates to 125,000-gallons (3.0 MGD / 24-hours) available for dilution of the 6.0 gallons of formalin administered. The combined wastewater flow is then discharged to the receiving water. The end of pipe concentration from fish treatment can be calculated as follows:

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

125,000-gal rearing facility wastewater / 6 gal formalin = 20,833:1 dilution
1,000,000 ppm (undiluted) formalin / 20,833 = 48 ppm formalin discharged

These examples consider hatchery and rearing facility treatments to be conducted on different occasions. If multiple treatments occur simultaneously, the total amount of formalin must be considered in calculating the end of pipe concentration. For brevity, these examples do not include a broodstock function, which would be calculated in a similar manner. If extended period pool treatments are conducted at the facility, the time during which the pool volume is discharged into the facility waste-stream should be used to determine an appropriate dilution volume instead of the time the formalin is added to the pool. Also, these examples utilized a facility that discharges its effluent without significant wastewater settling. If the facility used a 500,000-gallon settling basin, the rearing facility discharge under the one-hour discharge scenario could be analyzed as follows.

125,000-gal rearing facility wastewater / 6 gal formalin = 20,833:1 dilution
500,000-gal basin volume / 125,000 combined waste-stream = 4:1 dilution
1,000,000 ppm (undiluted) formalin / 20,833 / 4 = 12 ppm formalin discharged

Use of the settling basin volume as an additional dilution is only applicable for the one-hour treatment scenario. Under a greater period of time of treatment and discharge, the additional settling volume becomes part of the facility infrastructure and the total facility discharge flow is used. It must be noted that to obtain an accurate end-of-pipe calculation, each facility must utilize accurate amounts of formalin used for all treatment functions, accurate volumes of the facility's effluent flow during the treatment period, and accurate volumes of water within any large settling structures. Effluent flow limits and design criteria can not be used. These examples illustrate end-of-pipe (EOP) concentrations, which would be further diluted depending upon the facility's effluent dilution in the receiving water. If a facility receives a 3:1 effluent dilution in the receiving water, the calculated EOP concentration should be divided by three to provide the concentration in the receiving water after mixing.

g. pH: This permitting action is carrying forward the daily maximum pH range limit of 6.0-8.5 standard units (su), considered by the Department as a best practicable treatment standard for fish hatcheries and rearing facilities and consistent with the pH limit established in discharge permits for these facilities. This permitting action carries forward the minimum pH monitoring frequency requirement of once/week to provide for more accurate characterization of facility effluent conditions. A review of the DMR data for the ASM Rangeley facility for the period of January 2006 through May 2010 indicates the following.

pH RANGE

Value	Limit	Minimum	Maximum	Average	# Values
Monthly Avg.	---	6.0 s.u.	7.0 s.u.	---	43
Daily Max.	6.0-8.5 s.u.	6.1 s.u.	7.1 s.u.	---	43

7. ALTERNATIVE DISCHARGE STUDY

Maine Law, 38 M.R.S.A., § 465.2(C), states that discharges into Class A waters *"…licensed prior to January 1, 1986, are allowed to continue only until practical alternatives exist"*. Further, "*…the department shall require the applicant to objectively demonstrate to the department's satisfaction that the discharge is necessary and that there are no other reasonable alternatives available*." The Rangeley River in the vicinity of the Rangeley facility's discharge was upgraded from Class B to Class A in 1989. The Rangeley facility's wastewater discharge is subject to "grandfathering" to the extent outlined in Fact Sheet Section 6. However, the Rangeley facility is still subject to the above cited requirements.

The previous permitting action required ASM Rangeley to conduct and submit a study of alternatives to the discharge of hatchery wastewater to the Rangeley River on or before six-months prior to expiration of the permit. On May 17, 2010, ASM Rangeley submitted Alternative Discharge Study, Oquossoc Hatchery. In this review, ASM Rangeley has demonstrated to the Department's satisfaction that it currently has no practical alternative to its wastewater discharge to the Rangeley River. Further, ASM Rangeley has demonstrated that it currently has no practical modifications to the existing wastewater treatment infrastructure and practices available that will yield significant improvements in effluent quality.

In keeping with the requirements of 38 M.R.S.A., § 465.2(C) and as described in Permit Special Condition H, on or before six-months prior to expiration of this permit, ASM Rangeley is required to submit to the Department for review, an Alternative Discharge Study (ADS) report for the Rangeley facility to determine if practical alternatives to the discharge exist. The ADS report shall evaluate wastewater treatment infrastructure, technologies, practices or other modifications that will result in the elimination of the discharge to the receiving water or improvement in the effluent quality.

Alternative Discharge Studies (ADS) typically evaluate the technical feasibility, estimated costs, and potential environmental impact from alternatives that will result in elimination of a discharge to a receiving water. Such alternatives include, but are not limited to, piping the discharge to a less restrictive receiving water, connecting the discharge to a municipal wastewater treatment facility, and constructing storage capacity and land applying effluent. The study shall include a material and cost breakdown of each identified option, additional equipment necessary, any needed real estate purchases or easements, and other issues and expenses. If no practical alternative for elimination of the discharge exists, then the ADS shall also evaluate modifications to existing wastewater treatment infrastructure and practices that will result in improvement of the effluent quality, such as additional or alternative treatment technology or methods, operational changes, seasonal modifications, discharge reduction, etc.

8. SETTLING BASIN CLEANING

Discharge of inadequately treated fish hatchery wastewater (excess feed and fish waste) contributes solids, BOD, and nutrients to receiving waters, which can contribute to eutrophication and oxygen depletion. This, in combination with other pollutant specific toxic effects, impacts the aquatic life and habitat value in the receiving water. Typical hatchery wastewater treatment practices include effluent filtration and settling with solids removal.

At the time of this Order, the ASM Rangeley facility has no separate effective settling basins or tanks. However, facility treatment upgrades are possible in the future. This permitting action carries forward requirements that the permittee must clean any settling structures at a minimum when accumulated materials occupy 20% of a basin's capacity, when material deposition in any area of the basin exceeds 50% of the operational depth, or at any time that said materials in or from the basins are contributing to a violation of permit effluent limits.

9. DISEASE AND PATHOGEN CONTROL AND REPORTING

Maine Department of Inland Fisheries and Wildlife (MDIFW) Rules (Chapter 2.03-A) and Maine Department of Marine Resources (MeDMR) Rules (Chapter 24.21) state that *"the transfer and/or introduction of organisms fall within the jurisdiction of the Department of Marine Resources (12 MRSA, §6071) into coastal waters within the State of Maine and the Department of Inland Fisheries and Wildlife (12 MRSA, §§7011, 7035 and 7201, 7202) into public and/or private waters within the State of Maine. These rules are intended to protect wild and farmed salmonid fish populations and shall be applicable to all individuals involved in the culture and movement of live salmonids and gametes."* Further, both agencies' rules define Diseases of Regulatory Concern as *"…infectious agents that have been demonstrated to cause a significant increase in the risk of mortality among salmonid populations in the State of Maine. Diseases of Regulatory Concern are classified by the Commissioner into three (3) disease categories: exotic, endemic (limited distribution) and endemic based on an annual review and analysis of epidemiological data."* This permitting action carries forward requirements that the permittee must comply with MDIFW and MeDMR salmonid fish health rules (12 MRSA, §6071; 12 MRSA, §§7011, 7035, 7201, and 7202, or revised rules). The cited rules include requirements for notification to the appropriate agency within 24-hours of pathogen detection. In the event of a catastrophic pathogen occurrence, in addition to the requirements of the rules, the permittee shall notify the Department in writing within 24-hours of detection, with information on necessary control measures and the veterinarian involved. The permittee shall submit to the Department for review and approval, information on the proposed treatment including materials/chemicals to be used, material/chemical toxicity to aquatic life, the mass and concentrations of materials/chemicals as administered, and the concentrations to be expected in the effluent. If, upon review of information regarding a treatment pursuant to this section, the Department determines that significant adverse effects are likely to occur, it may restrict or limit such use.

10. THERAPEUTIC AGENTS

In the June 30, 2004, USEPA Effluent Limitations Guidelines and New Source Performance Standards for the Concentrated Aquatic Animal Production Point Source Category (National Effluent Guidelines), EPA requires proper storage of drugs, pesticides and feed and requires facilities to report use of any investigational new animal drug (INAD), extra-label drug use, and spills of drugs, pesticides or feed that results in a discharge to waters of the U.S. This permitting action carries forward the previous requirements that all medicated fish feeds, drugs, and other fish health therapeutants shall be approved by the US Food and Drug Administration (USFDA) and applied according to USFDA accepted guidelines and manufacturer's label instructions and that therapeutic agents must also be registered with USEPA, as appropriate. Further, records of all such materials used must be maintained at the facility for five years.

This permitting action does not authorize routine off-label or extra-label drug use. Such uses shall only be permitted in emergency situations when they are the only feasible treatments available and only under the authority of a veterinarian. The permittee shall notify the Department in writing within 24-hours of such use. This notification must be provided by the veterinarian involved and must include the agent(s) used, the concentration and mass applied, a description of how the use constitutes off-label or extra-label use, the necessity for the use in terms of the condition to be treated and the inability to utilize accepted drugs or approved methods, the duration of the use, the likely need of repeat treatments, and information on aquatic toxicity. If, upon review of information regarding the use of a drug pursuant to this section, the Department determines that significant adverse effects are likely to occur, it may restrict or limit such use.

This permitting action does not authorize the discharge of drugs authorized by the USFDA pursuant to the Investigational New Animal Drug (INAD) program. As the INAD program typically involves the long-term study of drugs, their benefits and effects, the permittee is anticipated to be able to notify the Department of its intent to conduct, and provide information related to, such study. The permittee is required to provide notification to the Department for review and approval prior to the use and discharge of any drug pursuant to the INAD program. This notification must include information to demonstrate that the minimum amount of drug necessary to evaluate its safety, efficacy, and possible environmental impacts will be used. Notifications must also include an environmental monitoring and evaluation program that at a minimum describes sampling strategies, analytical procedures, evaluation techniques and a timetable for completion of the program. The program must consider the possible effects on the water column, benthic conditions and organisms in or uses of the surrounding waters. INAD related uses and discharges will be subject to Department review and approval. ASM Rangeley indicates that the following therapeutic agents may be used at the Rangeley facility. These agents must be used pursuant to the requirements specified herein.

10. THERAPEUTIC AGENTS (cont'd)

Formalin. Effluent limitations and monitoring requirements related to the use of formalin at the facility are addressed in Permit Special Condition A, footnote 3 and Fact Sheet Section 6.f.
Perox-Aid 35% hydrogen peroxide for control of fungus on eggs and bacterial gill disease on fish. This product is seen as a potential complete/partial replacement for Parasite-S (formalin). Small scale studies will need to be run prior to the elimination of Parasite-S, thus a total volume per year is unavailable at this time.
Aquaflor antibiotic for the control of cold water disease or furunculosis only under the guidance of a veterinarian. Active ingredient Florfenicol. Used previously in 2003 under INAD 10-697. Fed at an inclusion rate of 10 mg/kg fish/day for a 10 day period. INAD 10-697 has since been replaced by use through a Veterinary Feed Directive.
Oxytetracycline antibiotic for the control of enteric red mouth and furunculosis only under the guidance of a veterinarian. Active ingredient oxytetracycline dihydrate. Used at a rate of 3.75 g/100lbs fish for 10 days. While a prescription is not required, it is the policy of ASM Rangeley to acquire a prescription prior to usage of antibiotics.
Romet (-30 or –TC) antibiotic for control of furunculosis, enteric red mouth, and cold water disease only under the guidance of a veterinarian. No previous use. If used, administration would be at 50 mg/kg fish for 5 consecutive days. While a prescription is not required, it is the policy of ASM Rangeley to acquire a prescription prior to usage of antibiotics.
Chloramine T for control of bacterial gill disease. Active ingredients N-chloro-toluenesulfonamide and sodium salt tri hydrate. Approximately 5 pounds per year are used as an equipment disinfectant. The Hatchery is enrolled in INAD 9321 for the disinfection of fish, however the product has never been utilized on fish at the hatchery.
MS 222 fish anesthetic to allow for close examination including fin clippings and vaccinations. Active ingredient ethyl m-amino benzoate. Approximately 6 kg (13 lbs) per year are used, with the largest amount during November during vaccination.
Sodium Chloride to assist fish in times of high stress. It induces additional slime production to aid in combat against naturally occurring freshwater parasites. Approximately 3,000 kg (6,600 lbs)/year used to create solutions of 5 parts per thousand within isolated treatment areas.
SLICE contained in feed mixture prior to shipping fish to marine sites to combat sea lice in sea water. Active ingredient Emamectin Benzoate. SLICE was used at ASM Rangeley in 2006, 2009, and 2010 pursuant to 2006 and 2007 Administrative Modifications (Fact Sheet Section 2.c) as part of USFDA INAD program #10-418. As with prior use, SLICE will only be used under the guidance of a veterinarian and according to USFDA and/or USEPA requirements as specified above, and pursuant to the recent USFWS INAD #11-370. Also, as previous, the Emamectin concentration within the Rangeley facility shall not exceed 27.7 parts per thousand unless previously approved by the Department based on Whole Effluent Toxicity (WET) testing results to compliment 2006 WET testing conducted.

The use and discharge of the materials described above or incorporated in the future are subject to the conditions described in Permit Special Condition C, Unauthorized Discharges.

11. DISINFECTING/SANITIZING AGENTS

ASM Rangeley indicates that the following disinfecting/sanitizing agents may be used at the Rangeley facility. These agents must be used pursuant to the requirements specified herein.

Ovadine for disinfection of salmonid eggs (≤ 100 ppm during February-April) and equipment (≤ 200 ppm year round). Active ingredient 10% polyvinylpyrrolidinone iodine and 90% inert ingredients. Approximately 10 gallons used per year.
Virkon Aquatic footbath disinfectant (≤ 2% solution). Active ingredients potassium peroxymonosulfate, sodium chloride, other inert ingredients. Approximately 40 pounds of powder used per year.
Simple Green for cleaning and disinfection of tanks. Active ingredients sodium metasilicate, sodium phosphate tribasic. Approximately 15 gallons used per year, generally during May, June, October, and November.
I2R for vehicle disinfection. Active ingredients iodine, phosphoric acid. Approximately 5 gallons per year at a dosage of 100 ppm.

Wastewater from egg disinfection and tank cleaning can be expected to enter the facility wastewater stream, while footbath wastewater does not. All iodine solution disposed of in the facility wastewater stream is further diluted in the full facility wastewater flow prior to discharge to the receiving water. At this time, there are no ambient water quality criteria for iodine.

In this permitting action, the Department carries forward the requirement that the permittee must maintain records of all sanitizing agents and/or disinfectants 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 five 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. The use and discharge of the materials described above or incorporated in the future are subject to the conditions described in Permit Special Condition C, Unauthorized Discharges.

12. MINIMUM TREATMENT TECHNOLOGY REQUIREMENT

Between 2000 and 2002, eleven Maine fish hatcheries were evaluated to identify potential options for facility upgrades. All nine Maine Department of Inland Fisheries and Wildlife hatcheries were evaluated by FishPro Inc., while the two USFWS hatcheries were evaluated by the Freshwater Institute. Recommended wastewater treatment upgrades for each of the facilities included microscreen filtration of the effluent. In the previous permitting action, based on the information provided and Department BPJ, the Department required that the permittee shall provide minimum treatment technology for the Rangeley facility that shall consist of treatment equal to or better than 60-micron microscreen filtration of the effluent, wastewater settling/clarification, removal of solids. This determination is being carried

12. MINIMUM TREATMENT TECHNOLOGY REQUIREMENT (cont'd)

forward in this permitting action. ASM Rangeley shall provide treatment and/or effluent quality equal to or better than the BPJ minimum treatment technology and shall comply with all effluent limitations, monitoring requirements, and operational requirements established in this permitting action. Additional treatment may be necessary to achieve specific water quality based limitations.

13. AMBIENT MACROINVERTEBRATE BIOMONITORING

Based on limited available data and Department concerns with potential effects of the facility's effluent discharges on the aquatic life in the Rangeley River, the previous permitting action required the permittee to conduct ambient macroinvertebrate biomonitoring annually beginning calendar year 2005. Results were to be reported to the Department annually. The previous permitting action contained provisions for modification or discontinuance of the biomonitoring requirement if the receiving water was determined by the Department to be meeting criteria, standards, and designated uses for its assigned water quality class.

The permittee conducted the required sampling and submitted the results to the Department for review. The Department evaluated the results of the macro-invertebrate sampling and determined that 2006 data indicated that the Rangeley River was attaining Class A aquatic life standards below the discharge from the ASM Rangeley facility. On June 27, 2007, pursuant to the conditions described above, the Department modified the MEPDES Permit / Maine WDL (#ME0110116 / #W-004701-5Q-B-R) to remove requirements for annual macroinvertebrate biomonitoring. The Department has no information that indicates that additional macroinvertebrate testing is required at this time.

14. SALMON GENETIC INTEGRITY AND HATCHERY ESCAPE PREVENTION

The US Fish and Wildlife Service and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) formally listed the Atlantic salmon as an endangered species on November 17, 2000. In that decision, the Gulf of Maine Distinct Population Segment (DPS) encompassed all naturally reproducing remnant populations of Atlantic salmon downstream of the former Edwards Dam site on the Kennebec River northward to the mouth of the St. Croix River. The watershed structure, available Atlantic salmon habitat, and abundance of Atlantic salmon at various life stages were best known for the following eight rivers: Dennys River, East Machias River, Machias River, Pleasant River, Narraguagus River, Ducktrap River, Sheepscot River, and Cove Brook. On June 15, 2009, the two agencies expanded the Gulf of Maine DPS to include salmon in the Penobscot, Kennebec, and Androscoggin Rivers and their tributaries. Two significant issues of concern regarding the rearing of salmon in Maine involve the genetic integrity of the salmon and escape prevention to avoid impacts on native fish.

14. SALMON GENETIC INTEGRITY AND HATCHERY ESCAPE PREVENTION (cont'd)

On December 4, 2000, in regard to the Department's pending delegation to administer the NPDES Permit Program, USEPA Region I informed the Department that "*permits issued to freshwater hatcheries raising salmon will require that the facility be designed or modified to achieve zero escapement of fish from the facility*". The EPA also stated, "*The information contained in the* (US Fish and Wildlife and NOAA Fisheries) *Services' listing documents indicates that a remnant population of wild Atlantic salmon is present in…*" Maine waters "*…and that salmon fish farms and hatcheries are activities having a significant impact on the…*" Gulf of Maine Distinct Population Segment of Atlantic salmon (DPS) "*…through, among other things, the escape of farmed and non-North American strains of salmon which may interbreed with the wild Maine strains, compete for habitat, disrupt native salmon redds, and spread disease." "Based on this information, the Services have concluded that the escape of farm-raised salmon from fish farms and hatcheries is likely to significantly impair the growth, reproduction and habitat of wild salmon, thereby impairing the viability of the DPS." "EPA has analyzed current information, including these findings, and based on this information believes that this remnant population constitutes an existing instream use of certain Gulf of Maine rivers and considers that the above-described impacts to the population would be inconsistent with Maine's water quality standards. Assuming the information discussed above does not significantly change, EPA will utilize its authorities to ensure compliance with Maine water quality standards by ensuring that conditions to protect the remnant population of Atlantic salmon are included in NPDES permits for salmon fish farms and hatcheries, which are subject to regulation as concentrated aquatic animal production facilities." "In view of the substantial danger of extinction to the DPS described by the Services, it is EPA's view that proposed permits authorizing activities that would adversely affect the population, as described earlier in this letter, would be inconsistent with Maine's water quality standards and objectionable under the CWA.*"

Leading up to the 2000 listing and in review of MEPDES Permit / Maine WDLs for other fish hatchery and rearing facilities in Maine, the USFWS and NOAA Fisheries have advocated for genetic testing of Atlantic salmon housed at hatchery and rearing facilities to ensure that they are of North American origin, as well as employment of a fully functional Containment Management System (CMS) at facilities to prevent the escape of raised salmon or other species of concern in order to avoid impacts on native fish populations. The escape of reared fish also has the potential for transmission of diseases and pathogens to native fish populations. These issues are of particular concern for the Gulf of Maine DPS and resulted in establishment of CMS requirements for the ASM Rangeley facility in the previous permitting action.

14. SALMON GENETIC INTEGRITY AND HATCHERY ESCAPE PREVENTION (cont'd)

Genetic Integrity: ASM Rangeley receives all of its salmon eggs, which are raised to the eyed stage and subsequently shipped to other facilities, from the Cobscook Bingham hatchery, UMCCAR Franklin hatchery (NCWMAC), and/or ASM's egg suppliers in the Maritime Provinces. ASM Rangeley receives salmon fry, which are raised to the smolt stage, from the Cobscook Bingham facility. Cobscook Bingham utilizes only one strain of salmon in its production, the St. John River Strain. All of Cobscook Bingham's broodstock fish are analyzed according to Microsatellite Protocols, with results shipped to USFWS. Only those fish deemed twice as likely to be of North American origin are utilized.

Maine's Aquaculture General Permit (#MEG130000, Part II, Section I) and individual MEPDES Permits for marine aquaculture facilities contain requirements to address the genetic integrity of Atlantic salmon raised in Maine for aquaculture. The genetic requirements are implemented at the marine sites as well as at the hatchery and rearing facilities that raise and supply salmon for marine aquaculture. As this is precisely the nature of ASM Rangeley's business and the purpose of the Rangeley facility, it is assumed that all salmon at the facility shall comply with these requirements. Additionally, the use of Atlantic salmon eggs or fish originating from non-North American stock is prohibited at the ASM Rangeley facility (Permit Special Condition N). As ASM Rangeley's current operation involves raising Atlantic salmon for marine aquaculture, its eggs and fish are subject to the genetic requirements specified in General Permit #MEG130000 and/or individual MEPDES permits for the marine sites. Further, the ASM Rangeley facility outfalls to the Rangeley River, which then flows to Mooselookmeguntic Lake, Upper and Lower Richardson Lakes, the Rapid River, Umbagog Lake, and the Androscoggin River, which flows across Maine until it meets with the Kennebec River in Merrymeeting Bay. Salmon from ASM Rangeley would have to navigate each of these waters to encounter the nearest DPS water. Because of the unlikeliness of this occurring and because of the requirements already in place in the aforementioned permits, this permitting action is not establishing genetic testing requirements for the ASM Rangeley facility.

Escapement: ASM Rangeley raises Atlantic salmon from eggs to smolts over a 10 to 16 month cycle for use ultimately in human consumption. ASM indicates that the Rangeley facility is designed to prevent escapement of fish and has identified the following critical control points, pursuant to Maine's Aquaculture General Permit requirements. For hatchery functions (egg to 5 grams in size), ASM Rangeley maintains escape prevention screens through (1) the screens in the EWOS troughs, Heath trays, and upwellers themselves; (2) a screen prior to the heat exchange system when used or through a fiberglass mesh in the trough to trough connections when heat reclaim is not conducted; and (3) in the main facility drum filters. For larger fish (greater than 5 grams) functions, ASM Rangeley maintains escape prevention screens through (1) outlet screens on each smolt tank; and (2) in the main facility drum filters. ASM Rangeley reports that all devices are inspected daily. Any escapees would have to elude these measures to make it to the receiving water.

14. SALMON GENETIC INTEGRITY AND HATCHERY ESCAPE PREVENTION (cont'd)

Based on requirements established in Maine's Aquaculture General Permit, individual MEPDES Permits for marine aquaculture facilities, and guidance developed by the Maine Aquaculture Association, this permitting action carries forward the requirement that the permittee shall employ a fully functional Containment Management System (CMS) at the facility designed, constructed, and operated so as to prevent the accidental or consequential escape of fish to open water. The CMS plan shall include a site plan or schematic with specifications of the particular system. The permittee shall develop and utilize a CMS consisting of management and auditing methods to describe or address the following: site plan description, inventory control procedures, predator control procedures, escape response procedures, unusual event management, severe weather procedures and training. The CMS shall contain a facility specific list of critical control points (CCP) where escapes have been determined to potentially occur. Each CCP must address the following: the specific location, control mechanisms, critical limits, monitoring procedures, appropriate corrective actions, verification procedures that define adequate CCP monitoring, and a defined record keeping system.

The CMS site specific plan shall describe the use of effective containment barriers appropriate to the life history of the fish. The facility shall have in place both a three-barrier system for fish up to 5 grams in size and a two barrier system for fish 5 grams in size or larger. The three-barrier system shall include one barrier at the incubation/rearing unit, one barrier at the effluent from the hatch house/fry rearing area and a third barrier placed inline with the entire effluent from the facility. Each barrier shall be appropriate to the size of fish being contained. The two-barrier system shall include one barrier at the individual rearing unit drain and one barrier inline with the total effluent from the facility. Each barrier shall be appropriate to the size of fish being contained. Barriers installed in the system may be of the screen type or some other similarly effective device used to contain fish of a specific size in a designated area. Barriers installed in the system for compliance with these requirements shall be monitored daily. Additional requirements include:

1. The CMS shall be audited at least once per year and within 30 days of a reportable escape (more than 50 fish) by a party other than the facility operator or owner qualified to conduct such audits and approved by the Department. *[09008]* A written report of these audits shall be provided to the permittee and the Department for review and approval within 30 days of the audit being conducted. If deficiencies are identified during the audit, the report shall contain a corrective action plan, including a timetable for implementation and re-auditing to verify deficiencies are addressed as in the corrective action plan approved by the Department. Additional third party audits to verify correction of deficiencies shall be conducted in accordance with the corrective action plan or upon request of the Department. The permittee shall notify the Department upon completion of corrective actions.

14. SALMON GENETIC INTEGRITY AND HATCHERY ESCAPE PREVENTION (cont'd)

2. Facility personnel responsible for routine operation shall be properly trained and qualified to implement the CMS. Prior to any containment system assessment associated with this permit, the permittee shall provide to the Department documentation of the employee's or contractor's demonstrated capabilities to conduct such work.

3. The permittee shall maintain complete records, logs, reports of internal and third party audits and documents related to the CMS on site for a period of 5 years.

4. For new facilities, a CMS shall be prepared and submitted to the Department for review and approval prior to fish being introduced into the facility.

The permittee shall report any known or suspected escapes of more than 50 fish within 24 hours to the Maine Dept of Marine Resources Bureau of Sea-Run Fisheries and Habitats at 207-941-9973 (Pat Keliher and Joan Trial), Maine Department of Inland Fisheries and Wildlife at 207-287-5202 (Commissioner's office), USFWS Maine Field Office at 207-827-5938, and NOAA Fisheries Maine Office at 207-866-7379. During off-hours, the reports can be called to 800-432-7381.

15. DISCHARGE IMPACT ON RECEIVING WATER QUALITY:

As permitted, based on the information available to date and best professional judgement, the Department has determined the existing water uses will be maintained and protected and the discharge will not cause or contribute to the failure of the Rangeley River to meet standards for Class A classification.

16. PUBLIC COMMENTS:

Public notice of this application was made in the Sun Journal newspaper on or about May 18, 2010. 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.

17. 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) 215-1579
Fax (207) 287-3435
email: Robert.D.Stratton@maine.gov

18. RESPONSE TO COMMENTS:

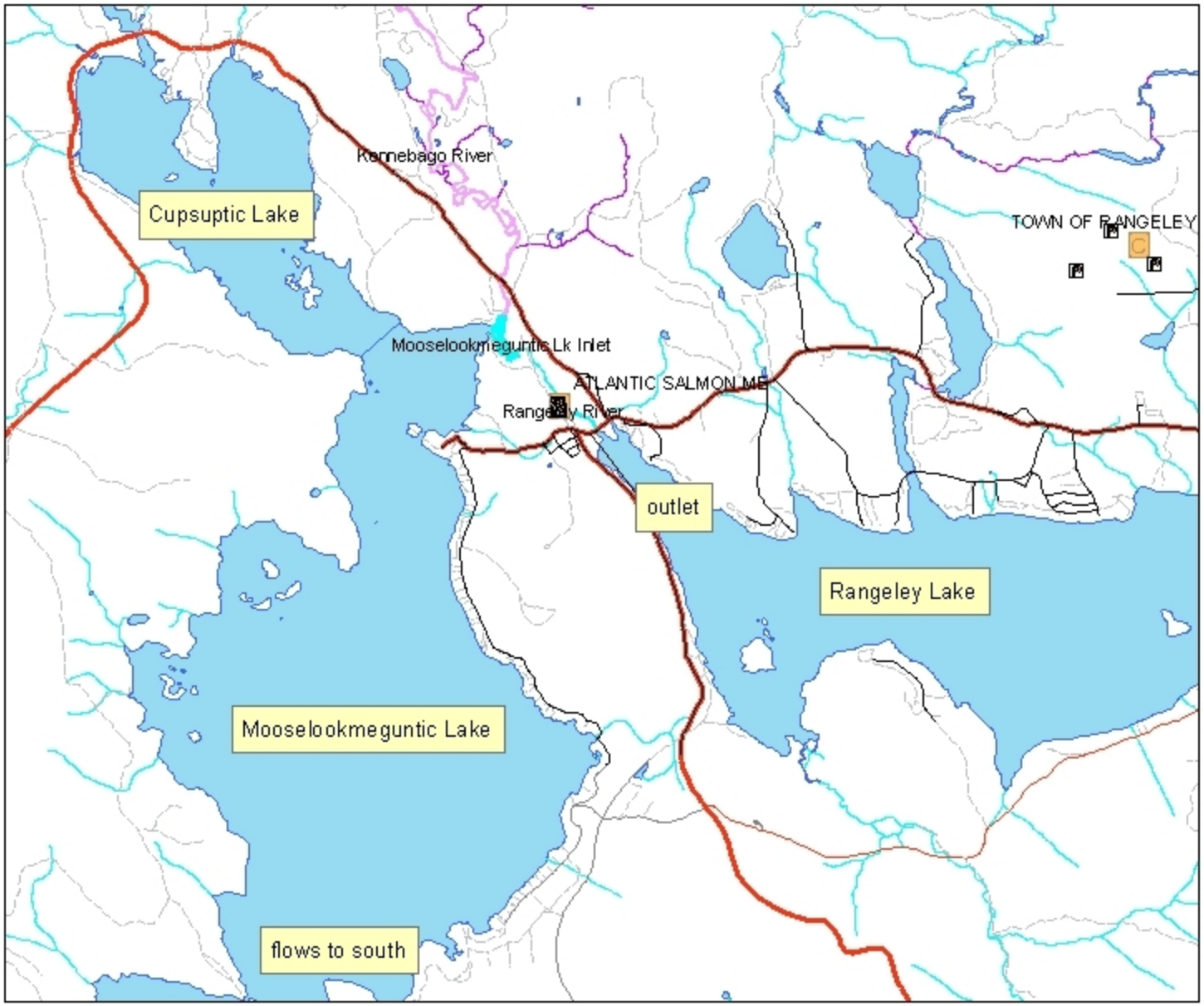
During the period of September 13, 2010 through October 13, 2010, the Department solicited comments on the proposed draft Maine Pollutant Discharge Elimination System Permit / Maine Waste Discharge License to be issued to Atlantic Salmon of Maine LLC for the proposed discharge. The Department did not receive any comments that resulted in significant revisions to the permit. Therefore, no response to comments has been prepared.

ATTACHMENT A

(Facility Location Map)

ATTACHMENT B

(Facility Site Plans)



Legend

Rivers
- AA
- A
- B
- C

Streams
- AA
- A
- B
- C

- Ponds and Lakes
- Wastewater_Facilities
- Wastewater_Outfalls

Roads

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

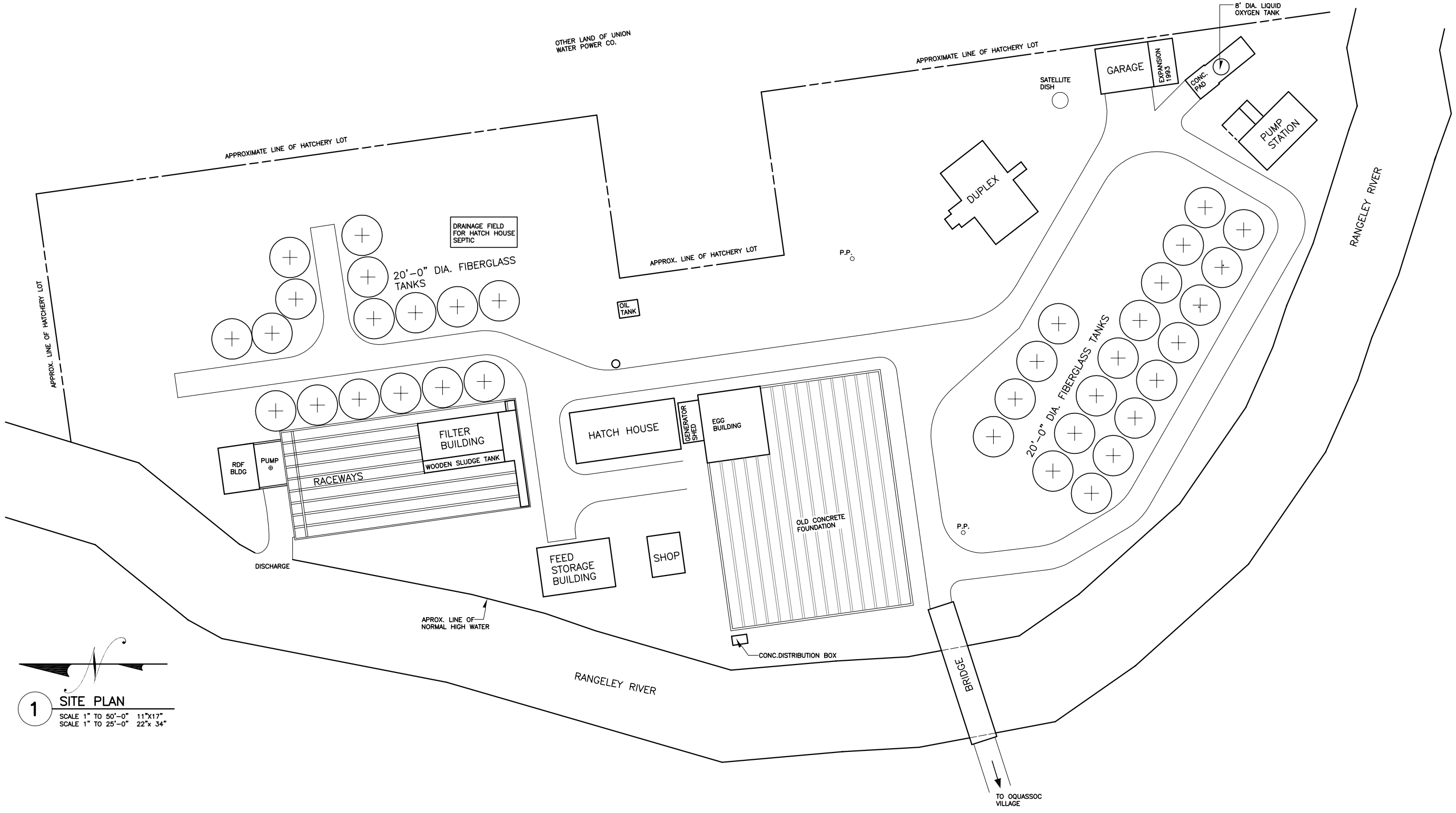
N

Miles
0 0.4 0.8 1.6 2.4 3.2

ASM Rangeley
Rangeley (Oquossoc), Maine

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

DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE OF MAINE



1 SITE PLAN

SCALE 1" TO 50'-0" 11"X17"
SCALE 1" TO 25'-0" 22"x 34"

PROJECT: CQS-ES CERTIFICATION	JOB: C8-04
CLIENT: COOKE AQUACULTURE	DATE: 08/07/11
TITLE: OQUOSSOC HATCHERY SITE PLAN	FILE: –
	DRAWN: O.S.D. M.V.R.
	CHECKED: –
	REV. DATE: 10/07/08
	SHEET: XD-1
	REV. 1

COSECO LIMITED
28 Young Street, Grand Bay-Westfield, NB E5K 2P8
PHONE (506) 738-2963 FAX (506) 738-8794

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A. GENERAL PROVISIONS

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

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

(a) They are not

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

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

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

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

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

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

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

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

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

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

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

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

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

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

B. OPERATION AND MAINTENACE OF FACILITIES

1. General facility requirements.

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

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

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

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

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

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

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

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

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

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

5. Bypasses.

(a) Definitions.

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

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

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

(c) Notice.

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

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

(d) Prohibition of bypass.

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

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

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

6. Upsets.

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

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

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

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

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

C. MONITORING AND RECORDS

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

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

3. Monitoring and records.

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

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

(c) Records of monitoring information shall include:

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

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

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

D. REPORTING REQUIREMENTS

1. Reporting requirements.

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

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

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

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

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

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

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

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

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

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

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

(f) Twenty-four hour reporting.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

5. Publicly owned treatment works.

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

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

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

E. OTHER REQUIREMENTS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Maximum daily discharge limitation means the highest allowable daily discharge.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

DEP INFORMATION SHEET

Appealing a Commissioner's Licensing Decision

Dated: May 2004 **Contact: (207) 287-2811**

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's (DEP) Commissioner: (1) in an administrative process before the Board of Environmental Protection (Board); or (2) in a judicial process before Maine's Superior Court. This INFORMATION SHEET, in conjunction with consulting statutory and regulatory provisions referred to herein, can help aggrieved persons with understanding their rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

DEP's *General Laws*, 38 M.R.S.A. § 341-D(4), and its *Rules Concerning the Processing of Applications and Other Administrative Matters* (Chapter 2), 06-096 CMR 2.24 (April 1, 2003).

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written notice of appeal within 30 calendar days of the date on which the Commissioner's decision was filed with the Board. Appeals filed after 30 calendar days will be rejected.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, c/o Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017; faxes are acceptable for purposes of meeting the deadline when followed by receipt of mailed original documents within five (5) working days. Receipt on a particular day must be by 5:00 PM at DEP's offices in Augusta; materials received after 5:00 PM are not considered received until the following day. The person appealing a licensing decision must also send the DEP's Commissioner and the applicant a copy of the documents. All the information listed in the next section must be submitted at the time the appeal is filed. Only the extraordinary circumstances described at the end of that section will justify evidence not in the DEP's record at the time of decision being added to the record for consideration by the Board as part of an appeal.

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

The materials constituting an appeal must contain the following information at the time submitted:

1. *Aggrieved Status*. Standing to maintain an appeal requires the appellant to show they are particularly injured by the Commissioner's decision.
2. *The findings, conclusions or conditions objected to or believed to be in error.* Specific references and facts regarding the appellant's issues with the decision must be provided in the notice of appeal.
3. *The basis of the objections or challenge.* If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.

5. *All the matters to be contested.* The Board will limit its consideration to those arguments specifically raised in the written notice of appeal.

6. *Request for hearing.* The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.

7. *New or additional evidence to be offered.* The Board may allow new or additional evidence as part of an appeal only when the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process or show that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2, Section 24(B)(5).

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license file is public information made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide opportunity for photocopying materials. There is a charge for copies or copying services.

2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer questions regarding applicable requirements.

3. *The filing of an appeal does not operate as a stay to any decision.* An applicant proceeding with a project pending the outcome of an appeal runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge initiation of the appeals procedure, including the name of the DEP project manager assigned to the specific appeal, within 15 days of receiving a timely filing. The notice of appeal, all materials accepted by the Board Chair as additional evidence, and any materials submitted in response to the appeal will be sent to Board members along with a briefing and recommendation from DEP staff. Parties filing appeals and interested persons are notified in advance of the final date set for Board consideration of an appeal or request for public hearing. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision. The Board will notify parties to an appeal and interested persons of its decision.

II. APPEALS TO MAINE SUPERIOR COURT

Maine law allows aggrieved persons to appeal final Commissioner licensing decisions to Maine's Superior Court, see 38 M.R.S.A. § 346(1); 06-096 CMR 2.26; 5 M.R.S.A. § 11001; & MRCivP 80C. Parties to the licensing decision must file a petition for review within 30 days after receipt of notice of the Commissioner's written decision. A petition for review by any other person aggrieved must be filed within 40-days from the date the written decision is rendered. The laws cited in this paragraph and other legal procedures govern the contents and processing of a Superior Court appeal.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, contact the DEP's Director of Procedures and Enforcement at (207) 287-2811.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.