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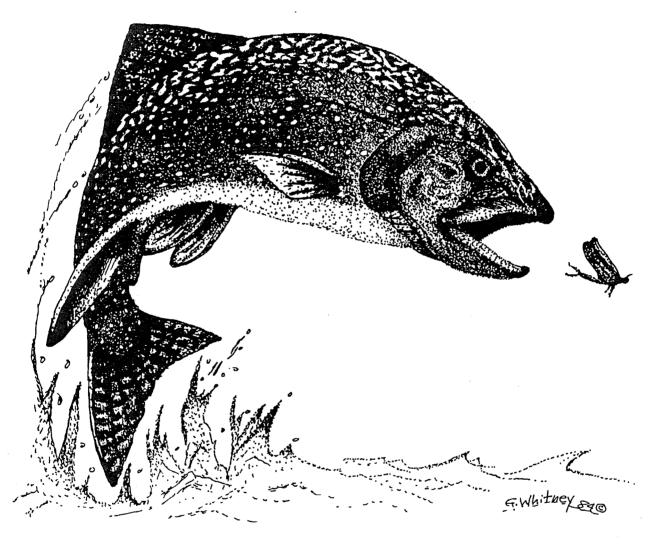


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# FISH HATCHERY TASK FORCE

# LD 991

# **CHAPTER 38, RESOLVES**



Presented to:

Senator Jeffrey H. Butland President, Maine Senate Representative Dan A. Gwadosky Speaker of the House

Members of:

Joint Standing Committee on Inland Fisheries & Wildlife

Joint Standing Committee on Marine Resources FISH HATCHERY

TASK FORCE

**REPORT** 

APRIL 1, 1996

TO: SENATOR - JEFFERY L. BUTLAND

REPRESENTATIVE - DAN A. GWADOSKY

# TABLE OF CONTENTS

Task Force Members	i
LD 991 Resolve	ii
Letter to Leadership	iii
Introduction	1
Privatization	2
Waste Discharge	5
Fish Health	6
Acknowledgements	7
Attachments	8
Privatization (various presentation letters and memos)	9 - 29
Waste Discharge (letters from DEP)	30 - 35
Fish Health (letter from IF&W)	36 - 37

# FISH HATCHERY TASK FORCE (CHAPTER 38, RESOLVES 1995)

#### **MEMBERSHIP**

#### Appointed by the President

Senator Stephen E. Hall RR#1, Box 331 Guilford, ME 04443 (207) 876-3539

#### Appointed by the Speaker

Representative Robert E. Keane 72 Sewall Drive Old Town, ME 04468 (207) 827-5008

#### Appointed by the Governor

Steve Swartz, Vice President Kennebec Aquaculture RFD#1, Box 2730 Solon, ME 04979 (207) 643-2200 FAX: (207) 643-2770

#### Ex Officio

Designee: Matt Scott, **Chair** and Deputy Commissioner Department of Inland Fisheries and Wildlife 41 State House Station Augusta, ME 04333-0041 (207) 287-3371 FAX: (207) 287-6395

Designee: Lewis Flagg, Anadromous Fish Department of Marine Resources 21 State House Station Augusta, ME 04333-0021 (207) 624-6341

Designee: Don Hoenig, State Veterinarian Department of Agriculture, Food & Rural Resources 28 State House Station Augusta, ME 04333-0028 (207) 287-3701

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Revised 2/1/96

APPROVED	CHAPTER
39' 8 S NUL	38
BY GOVERNOR	RESOLVES

#### STATE OF MAINE

# IN THE YEAR OF OUR LORD NINETEEN HUNDRED AND NINETY-FIVE

S.P. 365 - L.D. 991

Resolve, to Strengthen Fish Hatchery Capacity within the State by Establishing a Partnership between Public and Private Organizations

- Sec. 1. Task force. Resolved: That the Fish Hatchery Task Force to Investigate Establishing a Partnership between Public and Private Organizations is created, and in this resolve referred to as "task force," to enter into discussions that include other interested parties to investigate and pursue opportunities for creating a partnership of public and private organizations for the efficient operation of state fishery restoration programs for inland and coastal waters; and be it further
  - Sec. 2. Task force membership; election of chair. Resolved: That the task force membership consists of the Commissioner of Inland Fisheries and Wildlife, the Commissioner of Marine Resources, the Commissioner of Environmental Protection, the Commissioner of Agriculture, Food and Rural Resources, one member of the Senate appointed by the President of the Senate, one member of the House of Representatives appointed by the Speaker of the House of Representatives and one member of the public to be appointed by the Governor. The Chair of the Legislative Council shall convene the first meeting. At the first meeting, the task force shall elect a chair from among its members; and be it further
  - Sec. 3. Meetings; reimbursement. Resolved: That the task force hold meetings in Augusta to take input from the public, there be public notice of those meetings and that the meetings and task force documents are public proceedings and public records pursuant to the Maine Revised Statutes, Title 1, section 402. Members are not entitled to receive reimbursement for expenses. Legislative members are not entitled to receive per diem compensation; and be it further

- Sec. 4. Salmonid fish health guidelines. Resolved: That the task force shall examine the appropriateness of the New England Salmonid Fish Health Guidelines in relationship to providing the greatest opportunities for the public and private raising of salmon and trout; and be it further
- Sec. 5. Water quality. Resolved: That the task force shall review and make any appropriate recommendations for change to the classification of receiving waters and water quality discharge standards affecting public and private fish hatcheries; and be it further
- Sec. 6. Report. Resolved: That the task force shall report its recommendations on these issues and policies to the 117th Legislature by January 1, 1996.



Angus S. King, Jr. Governor

Ray B. Owen, Jr. Commissioner

#### DEPARTMENT OF INLAND FISHERIES AND WILDLIFE

December 29, 1995

Senator Jeffrey Butland, President Maine Senate and Representative Dan Gwadosky Speaker of the House State House Augusta, ME 04333

Honorable President and Speaker:

My name is Matthew Scott, Deputy commissioner of Inland Fisheries and Wildlife. I was elected chair of the Fish Hatchery Task Force on 10/10/95 to carry out the resolve established under LD 991. This resolve directed a Task Force of seven to look into fish hatchery <u>privatization</u>, fish hatchery <u>discharge licenses</u> and fish <u>hatchery</u> diseases.

The Task Force has met four times and they have resolved two of the above three items. We now need time to focus on fish hatchery diseases (fish health).

The purpose of this letter is to ask you both for an extension of time to complete our tasks. We feel that February 1, 1996 would be a reasonable date because we are unable to meet the January 1, 1996 deadline.

The Task Force does not have any budget nor any legislative staff assigned for work. I have provided all communications and the file of public records through my office. Each Task Force member has provided their own support for correspondence and tele-communications. The Task Force members are to be congratulated for their free input of time and travel.

We need the month of January to finish our task. On behalf of the Task Force I thank you.

Yours truly,

Matthew Scott

Deputy Commissioner

Matthew- Scott

#### <u>Introduction</u>

The Maine Legislature enacted L.D. #991, a resolve to strengthen fish hatchery capacity through partnerships between public and private organizations. This legislation was heard by the Committee on Marine Resources. Members were later selected from four state agencies, one Senate and one House member, and one public member The membership list is in the front of this report.

Privatization was to be investigated and opportunities pursued. Examination of the New England Salmonid Fish Health Guidelines were to be completed as to their appropriateness. Water quality of hatchery discharges was to be reviewed. Water classification changes were to be made if necessary or some language that might be acceptable for change to help those dischargers caught in the reclassification process.

This legislation was specific to provide assistance and help to the aquaculture industry of Maine who felt they were not being treated fairly by government agencies that regulate them. Therefore, this Committee's mission was to try and find common ground and establish a level playing field.

A copy of the legislation is in the attachments of this report. The Task Force held its first meeting on October 10, 1995, with Sarah Tubbesing, Executive Director of the Legislative Council, to select a Chair. Matt Scott of IF&W was elected Chair. The Committee agreed to divide the tasks, based on the legislation, into three categories; privatization, waste discharge and fish health.

There were no provisions to compensate the members who attended meetings nor was there any staff provided by the legislative office of policy and legal analysis. It was assumed that the selected chair would provide clerical support and printing from his agency.

#### **Privatization**

#### **Discussion**:

A majority of Committee members support the concept of some type of partnership between the state and private hatchery facilities. All members of the Task Force have had the opportunity to visit state and private hatchery facilities to see how different these operations are and what they look like.

Staff from Inland Fisheries and Wildlife presented their data and made it clear that they could raise more put and take brook trout at the present time and they were at their maximum needs for all other species. It was also the opinion of the IF&W staff that they can raise fish as cheap or cheaper. Their costs are low, averaging \$1.39 per fish, as pointed out in their report (see attachments). The privates are supportive and interested to participate in any opportunity to raise fish for the state (see attached letters). Technology transfer is available from the privates and they would like to see a bidding process set up under contract. They see a partnership and cooperative venture as a positive move with the State.

Kennebec Aquaculture, a private hatchery plus others, are very interested in providing a heated hatch and start feed program for fry. They are ready to participate in a partnership program compatible with State needs. In fact, they have expressed interest on a trial or experimental venture. Also, they may be participating in the river specific program for Atlantic Salmon as well as raising Landlocked salmon for the Moosehead fishery coalition.

Some discussion was generated around the new \$5 million dollar hatchery bond and the Committee would like to see specific items listed as needs by the State (see attachments). This bond is being developed as a campaign item by the Sportsmen Alliance of Maine (SAM). The Fish and Wildlife Task Force has recommended to the Fish & Wildlife Committee

their support and to move ahead with the \$5 million bond in the legislature. The Fish & Wildlife Committee voted 11 - 0 in support of the bond. The Department staff prepared the above list of capital needs for the bond issue and has worked with the Task Force. There is no option for marine species to be considered, and SAM will not be supporting this as an option as they did two years ago. However, the committee feels this option should be available for the future.

Another public comment on funding for clam hatcheries, as well as other marine species, was offered. We tried to focus on finfish and more specifically, salmonids. The \$5 million bond issue is going to focus on freshwater salmonids, as currently proposed. Department of Marine Resources is working with Atlantic Aquafarm and Island Aquaculture to rear Atlantic cod. A \$500,000 federal Fishing industry Grant was awarded to these two companies to construct hatcheries for rearing Atlantic cod and possibly other groundfish species such as haddock and halibut. The objectives of these hatcheries are:

- 1) Reestablish inshore spawning populations of cod and other groundfish species for nearshore recreation and commercial users; and
- 2) Provide a source of juvenile groundfish for use in aquaculture of marine species.

Construction of the two cod hatcheries is complete, but there are currently no funds available for operations and maintenance which are estimated to cost around \$200,000 per year. Evaluation of the success of the hatcheries would take about 5-6 years. The current cod hatchery operations are an excellent example of cooperative fish culture programs between the state and private enterprise. This effort should be supported and continued.

The State has evaluated their needs for future stocks and they must evaluate the success of any new stocking program proposed. This is the only way to evaluate quality fishing. Without some type of assessment of stocking, or evaluation of returns to anglers, then stocking is meaningless.

Comments from the public indicate that many privates could raise fish for the state and perhaps these are possibilities that need more exploration. Currently, that is beyond the time frame of this Committee. We must not give the impression that privatization of all state fish hatcheries is the solution to fish stocking in Maine, and the Committee has not done such.

#### Findings:

The majority of the committee would like to see some type of privatization cooperative venture between the State and industry. One legislator from the public wants the committee to address the needs of a clam hatchery program on the Maine coast. Some type of funding is needed.

Private industry is very willing to do specific work and is encouraging competitive biding. They feel that clean eggs provided by the state would serve as a healthy start on a trial basis.

#### Recommendations:

- 1. The privatization issue of state and industry for cooperative raising of salmonids with various concepts be referred to the Committee on Inland Fisheries and Wildlife. Steve Swartz made a presentation on 2/8/96 at the invitation of Senator Steve Hall, Chairman of the Committee, to discuss the appropriate use of the \$5 million of bond money.
- 2. All reference to marine aquaculture species be referred to the Committee on Marine Resources.
- 3. The Committee strongly endorses the continuation of the codfish hatchery program between the DMR and private enterprise. We recommend that anadromous species be considered funded under a bond issue.

#### Waste Discharge

#### Discussion:

Hatchery discharges and their associated impact to water quality of receiving waters has not been a high priority for the DEP. Simply put, hatcheries have not been a significant problem except in specific cases. All discharges in Maine are regulated by the DEP and are based on a 7Q10 (seven day low flow that happens every ten years). Therefore each discharge is handled on a case by case basis as it relates to the receiving water. Specific parameters are measured for impact to water quality standards that have been set for dischargers to meet.

In 1986 the Maine legislature passed a new water classification system with some watersheds being reclassified in 1988 by the DEP. Discharges to Class A waters (inland) of Maine must be equal to or better than existing waters. Some hatcheries, private and state, currently discharge to Class A waters. These facilities were in operation prior to 1986 and 1988. Therefore a window of grandfathering exists.

Certain fish pathogens have been listed as a requirement on private hatchery discharge licenses. This requirement has not been uniformly applied to all hatchery discharge licenses. State hatchery discharges have never been required to have such pathogens listed. This has led to concern that there is no level playing field by the state and that unfair treatment is being dealt private hatchery operations.

#### <u>Findings</u>:

That hatchery discharges be looked at on a case by case for licensing and that existing classifications exempt fish hatchery discharges based on grandfathering under current law.

That specific pathogens required on private discharge licenses be eliminated. The state now has their own fish pathologist qualified in the area of these specific diseases and the State regulate intra and interstate movement of salmonids.

#### Recommendations:

- 1. A letter of opinion from the Attorney General on the grandfather clause for discharges prior to 1988. The DEP staff were pursuing this, copy attached.
- 2. A letter of opinion from IF&W Commissioner, Ray B. Owen, Jr., regarding fish pathogens on private hatchery licenses. This has been done and mailed to the DEP, copy attached.

#### Fish Health

#### **Discussions:**

The Committee agreed that the fish health issues be confined to salmonids as provided in Sec. 4 (see attachment) Page 2 of L.D. #991. There is a Fish Health Ad Hoc Committee composed of DMR, IF&W, DAFRR and Aquaculture industry representatives to address intrastate movement of salmonids and to critique the New England Salmonid Fish Health Guidelines. In its proposal to the Departments, the Ad Hoc Committee recommended that the Department of IF&W examine the issue of bait fish with respect to fish health.

There was some discussion about a plan to address the disease issue of fish in general. The Fish Health Advisory Board concept was viewed as a possible means to a solution. However, composition of this Board is a concern of everyone. Size of the Board, voting power and who should be represented was discussed with a total of seven members. If the state is going to regulate fish health, which it does, then it must be involved in any Advisory Board with levels of expertise.

#### <u>Findings:</u>

The Committee would like to have IF&W and DMR endorse the Fish Health Advisory Board concept and work with the Ad Hoc Committee to determine the Board's composition. Also, it is important that the Commissioners of IF&W and DMR respond to Don Hoenig, Chairman of the

Ad Hoc Fish Health Committee as soon as possible.

#### Recommendations:

- 1. Establish a Fish Health Advisory Board for Maine to review and collect relevant facts pertinent to reported outbreaks of exotic fish diseases. The Committee agreed that only one Federal agency needed to be represented on the Advisory Board either from NMFS or the USF&WS.
- 2. Apply the New England salmonid Health Guidelines to the <u>interstate</u> movement of salmonids (see attachments).
- 3. Recognize that IF&W and DMR, by statute, regulate salmonid fish movement in and out of Maine.

#### Acknowledgements:

The Task Force appreciates the visitation to the private aquaculture facilities and the State fish hatcheries. We appreciate the public participation and contribution of ideas to help resolve issues.

Since there was no compensation for members attending the chair thanks every member for their nearly 100% attendance. The legislature should recognize that there was no funding or staff to carry out the Task Force's mission.

# **ATTACHMENTS**

## Privatization

#### Narrative

The groundfisheries in New England are in crisis. Currently, Amendment # 5 to the Northeast Multispecies Fishery Management Plan has, as its objective, the reduction of fishing effort by 50% over a five year period. Although this represents a drastic change in the wild fishery it was deemed inadequate to protect and rebuild the stocks of Atlantic cod, haddock and yellowtail flounder. Consequently, Georges Bank has been closed to fishing and Amendment # 7 to the groundfish management plan is considering a much more rapid reduction in fishing effort. Unfortunately this entire management strategy is a negative approach to fish stock restoration since all of the proposed measures address the overharvesting question by restricting fishermen's options. An alternative, and a more positive approach, that was originally proposed for New England in 1993, is the establishment of groundfish hatcheries to produce Atlantic cod eggs, larvae and juveniles for replenishing the diminished stocks.

The Maine Fisherman's Cooperative Association proposed to the state Legislature that a surcharge of \$100 be placed on Maine's commercial fishing license holders to build groundfish hatcheries. The Department of Marine Resources reacted to this proposal by suggesting that the surcharge be reduced to \$10 for one year to support a Groundfish Study Hatchery Commission. The directive to the Commission was to evaluate the economic and biological potential of groundfish hatcheries as a management tool. This suggestion was, in part, a reaction to the perceived lack of success of the fish hatcheries that were in operation in New England during the first part of this century. It was also a reaction to the more recent success that the Norwegian fisheries community has had with cod culture. Regardless of the underlying reason, the 116th Maine State Legislature created the Groundfish Study Hatchery Commission with its first charge being to evaluate the economic feasibility of groundfish stock enhancement.

The Groundfish Study Hatchery Commission included representatives from the scientific, fishing, business and environmental communities and was chaired by the Department of Marine Resource's Designee, Dr. Richard Langton. It brought commercial fishers and aquaculturists together to discuss a potentially mutually beneficial concept. A report was prepared and submitted to the Maine Legislature in January 1994 that focused on the economic feasibility of stock enhancement, using Atlantic cod as a model. The economic model, used to assess the economic feasibility, was developed for the committee by Dr. J. Wilson of the University of Maine with input from the various committee members. The model parameters were described in the legislative report but no other documentation currently exists. The conclusions from the model were stressed in the report, that is, approximately three out of every thousand larval fish released would have to survive to be harvested to offset hatchery production costs.

Following the first report to the Maine Legislature the Groundfish Hatchery Study Commission continued with phase II of the project. This included a more detailed investigation of the hatchery concept and a consideration of the influence of hatchery reared fish on the wild stock. A second report was submitted to the Legislature in January 1995, thus completing the Commissions work. At the same time, the Federal government initiated the Fishing Industry Grants program and two proposals were submitted by Maine industry to build and operate pilot scale Atlantic cod hatcheries. The proposals were rolled into a single project with hatcheries being constructed at the Atlantic Aquafarm facilities in Franklin and on Swans Island at the Island Aquaculture site.

Hatchery construction was completed near the end of the cod spawning season in 1995 and hatchery operations are now just getting underway for 1996.

The original concept behind the economic feasibility study was that hatchery reared fish would simply augment the catch in the wild fishery. This strategy would require that hatchery reared fish be caught to "count" in an economic sense. Since the original model, a survey of fishermen along the Maine coast (currently being conducted by Ted Ames with support from the Island Institute) has begun to identify numerous locations reported to have been local spawning ground that no longer produce fish. So, the question of economic feasibility has to be readdressed, taking into consideration the possibility of re-establishing spawning grounds and the multiplier effect this would have on the value of fish introduced from a hatchery. In other words, if a cod were to reproduce rather than be caught their economic value is multiplied by the value of their offspring. The result of this would be that more could be invested in individual fish prior to their release, thus enhancing their likelihood of survival and potential for reproductive success. In addition there is the possibility of groundfish culture as a vehicle for diversifying the fish farming interests in Maine which now rely almost exclusively on salmon. In fact, the model proposed for the Swan's Island hatchery included the ultimate production of cod for both enhancement purposes and grow out under aquaculture conditions.

Dr. Richard Langton Marine Research Scientist DMR Boothbay Harbor, ME

#### STATE OF MAINE

#### Inter-Departmental Memorandum

DATE: January 13, 1995

TO: Commissioner Owen DEPT: I

FROM: Steve Wilson, Supt of Hatcheries DEPT: IF&W

SUBJECT: 1994 Hatchery Costs

Attached you will find a summary of the cost of fish produced and stocked for 1994 by our hatchery section. Hatchery operating costs were taken from the FY 94 Expenditure Analysis Report. Fish feed costs, appropriate fish health laboratory costs and administrative costs were prorated (\$28,968) and added equally to each hatcheries costs for a total hatchery section operating cost of \$1,531,158. The number of fish stocked were taken from the 1994 stocking report. Operating costs include 451,090 fry (fish 2 to 4 inches) that were stocked but their numbers were not used in the cost per fish calculation. The average cost per fish six inches and greater is \$1.39.

Please note that if additional funds for capital improvements of \$250,000 or \$500,000 per year were to be added to the operating budget, costs would only increase to \$1.62 or \$1.84 per fish, respectively.

Also included is a break down of cost for each species raised. These figures were calculated from the number of fish of each species reared at specific hatcheries and the corresponding cost associated with their production. The operating cost of the Phillips brook trout brood stock hatchery has been prorated and incorporated into the cost of brook trout at each facility currently raising brook trout.

Costs are for the entire rearing process from brood stock care, egg collection (both from wild and domestic brood), fish rearing and transport of fish to several hundred designated waters.

cc: Hurley Bourque Atwater

	FY 94								
HATCHERY	EXPENDITUR	RES	ADJUSTMENT	1	NET	NO.	FISH STOC	KED (	6"-12")
CASCO DRY MILLS EMBDEN ENFIELD GOV HILL GRAND LK STR NEW GLOUCESTER PALERMO PHILLIPS	125,436 179,363 118,474 183,154 171,697 154,824 124,268 120,014 93,616	+ + + + + + + + + + + + + + + + + + + +	28,968 28,968 28,968 28,968 28,968 28,968 28,968 28,968 28,968	= = = = = = = = = = = = = = = = = = = =	154,404 208,331 147,442 212,122 200,665 183,392 153,236 148,982 122,584	:	76,362 192,427 192,177 264,533 122,917 38,660 95,214 116,706 1,287		
$ \begin{array}{r} 1,531,158 \\ \underline{250,000^2} \\ 1,781,158 \div 1,1 \end{array} $	·		-/FISH	1,	531,158 531,158 500,000 <sup>3</sup>		1,287  1,100,283	·	

 <sup>&</sup>lt;sup>1</sup>Includes fish feed, diagnostic lab costs and administrative costs.
 <sup>2</sup>If additional funds are allocated at the rate of \$250,000/year for hatchery maintenance beginning in 1995, the cost would increase to \$1.62 per fish.
 <sup>3</sup>If additional funds are allocated at the rate of \$500,000/year for hatchery maintenance the cost would increase to \$1.84 per fish.

SPECIES	COST	NO. OF FISH	AVERAGE COST PER FISH (6"-12")
SPECIES	COST	NO. OF FISH .	PER F15H (0 -12 )
BROOK TROUT	•		•
DRY MILLS EMBDEN ENFIELD GOV HILL PALERMO	\$223,096 152,975 218,042 66,663 83,639 \$744,414	175,477 159,988 220,079 36,620 57,081 649,245 =	\$1.15/FISH
BROWN TROUT  NEW GLOUCESTER  PALERMO	\$153,236 76,130 \$229,366	95,214 59,625 154,839 =	\$1.48/FISH
LAKE TROUT  DRY MILLS  GOV HILL	\$ 18,333 50,969 \$ 69,302	16,950 31,167 48,117 =	\$1.44/FISH
SALMON CASCO EMBDEN ENFIELD GRAND LAKE STR	\$154,404 24,623 35,637 183,392 \$398,056	76,362 32,189 44,454 38,660 191,665 =	\$2.08/FISH
SPLAKE GOV HILL	\$ 90,098	55,130 =	\$1.63/FISH

# RR #1 BOX 2730

SOLON, MAINE 04979 Phone (207) 643-2200

Fax (207) 643-2770

# <u>MEMO</u>

Date:

December 12, 1995

To:

LD 991 Committee

From:

Steve Swartz

Re:

Requested comments

1. privatization

2. new \$5 million bond

#### 1. Partnership between IF&W and commercial growers.

As I presented to the committee at the meeting on November 8, 1995, several of the commercial growers have expressed an interest in demonstrating a hatch and start feed program for trout and salmon at no cost to IF&W. It was their intent to demonstrate the enormous advantages using a heated water system. Even though it was apparent in two publications (see below) that IF&W wanted to increase growth in early stages of development, they still rejected our offer.

At both Dry Mills and Grand Lake Stream new well water sources were being sought in order to "accelerate development of eggs and fry".

In order to grow 10" - 12" brook trout for Moosehead Lake IF&W agreed to "force feed" a high protein diet to quicken growth. Rearing fish at optimum temperature, not force feeding maximizes growth.

#### 2. New \$5 Million Bond Proposal.

I have several concerns with the soon to be proposed \$5 million bond issue; especially where and how the money is going to be spent. See attached sheet re: IF&W 1994 suggested hatchery improvements, as summarized below.

Increase water volume at 7 facilities.

Add rearing space (tanks) at 7 facilities.

Additions or new buildings at 6 facilities.

New or improved incoming water treatment systems at 6 facilities.

New or improved discharge systems at 4 facilities.

#### Some of my concerns are as follows:

Has anyone done any preliminary research to determine the cost of <u>any</u> of the above suggested improvements, such as:

Cost of exploring and drilling test wells, effects of water drawdown on hatcheries on existing lakes, or contacts with local lake associations.

Cost of adding new lake water inlet systems.

Cost of adding new tank fields and removing or repairing old concrete raceways.

Tested incoming water to determine size or intensity of new UV, ozone, or filter systems.

Looked into new DEP changes in discharge parameters and how they may effect future use or proposed increase production at existing sites.

Looked into the cost of a new facility or some form of consolidation.

#### Sample Comparison

	9 State Facilities	Commercial Hatchery
Full time hatchery employees	33+	6
6 - 12" fish / year	1,100,000	550,000
fry & parr	500,000	1,100,000
water useage	30,000,000 gal/day	4,000,000 gal/day
discharge systems	9	1
fish lost to predation and disease	?	0
offices, shops, etc.	9+	1
apartments/housing	23+	2
	cost of improvements \$5,000,000	cost of new facility \$2,500,000

# SUMMARY OF IF&W ARTICLE ENTITLED WE'LL BE HATCHING SOME PLANS

	INCF	REASED PRO	DUCTION	WATER <sup>-</sup>	REATMENT	DISCHARGE IMPROVEMENTS	
IF&W FISH REARING STATIONS		NEW/IMP R BLDGS	ADDITIONAL TANKS	UV	FILTER		
Embden	YES	YES	YES	YES	YES		
Dry Mills	YES	YES			YES		YES
Palermo		YES	YES	YES	YES		
Grand Lake	YES		YES	YES	YES	YES	YES
Phillips	YES	YES				YES	YES
Enfield		YES	YES			YES	YES
Casco	YES		YES		YES	YES	YES
New Gloucester	YES	YES	YES				YES
Governor Hill	YES		YES		YES		

# **MEMO**

Date: November 9, 1995

To: LD 991 Committee Members

From: Steve Swartz, Industry Representative

First, I must apologize but, after numerous dicussions earlier this year I was under the impression that rearing fish for stocking Maine waters was a dead issue. As a result of this, when industry people contacted me about LD 991 (privatization) I suggested a cooperative effort in other areas, such as hatching capabilities, sea cage culture, and a willingness to share knowledge and information. Although, as I mentioned at yesterday's meeting most companies are currently at full capacity, there may be interest in a bidding process in the future. Also, if the committee or IF&W (since they have again submitted their 1994 hatchery costs) wish to do a comparison with industry facilities, I have enclosed a modified line item operating cost spreadsheet which I will forward to all interested parties to complete.

Secondly, I would again like to clarify that the advantages of a heated hatch & start feed system versus an ambient water temperature system (whether lake, river, or spring water source) are in providing an optimum growing environment for culturing fish. This gives the facility the capability of either raising larger fish as the end product or more fish of the desired size in any given production year. I personally believe this concept would dramiatically increase production if the state implemented it.

If agreeable, I would like to discuss these options at our next meeting on December 5, 1995. If you have any questions in the meantime, please do not hesitate to call me.

Steve Swartz

ld111095.wri

# Line Item Production Cost for Each Facility / Year

Miscellaneous
O/S Service
Parttime
Labor Repairs
Oil / Fuel
Office
Apartments
Buildings
Electric
Property Taxes
Personal Tax
Professional Fees
Vaccinations
Antibiotic
Chemicals
State U.C.
Federal U.C.
Telephone
Main Office
Hatchery Office
Apartments
Cellular / Pagers
Utility
Electric
Hatchery
Office
Apartments
Gas
Vehicles
Gas
Repairs & Maintenance
Inspections
Insurance
Also required:
Average Monthly Water Usage in GPM
Biomass (lbs)
Number & Size each month

Administrative Costs
% of Salaries
Commissioners
Directors
Superintendents
Clerical
Accounting
Payroll
Legal / AG Office
Audit
Engineering
Office Expense



# House of Representatives

State House

Augusta 04333-0002 287-1400

Hon. Robert E. Keane
72 Sewall Drive
Old Town, Maine 04468
Tel: 207-827-5008

December 6, 1995

Matt Scott Deputy Commissioner Department of Inland Fisheries and Wildlife State House Station #41 Augusta, ME 04333-0041

Dear Matt:

In response to your request for information regarding various committees viewpoints on the privatization of hatcheries, I submit this letter as a strong supporter of a public-private sector coalition to improve our fish stocking program in the State of Maine.

It seems to me that private industry is ready to respond to any State request for a cost effective disease free fish stock whatever the species and the State should immediately develop a plan to utilize these private resources.

State hatcheries face a critical dilemma in their need to increase fish production to regenerate depleting fisheries as opposed to a countervailing lack of public sentiment to support such effects with Bond approvals.

Our hatcheries are not state of the art facilities and cannot face a future of technological decline. I realize the "adopt a hatchery" program will help with existing infrastructure decline but such efforts will only prolong the inevitable obsolescence of the existing facilities without the saving capital a Bond approval can provide.

I hope these sentiments are helpful to you as you ponder your role in utilizing all resources available to increase our fish stock. I for one think it would be a shortsighted and self serving vision to exclude privatization from contributing to making our hatcheries the best in the country.

Sincerely,

State Representative

# Maine produces.

### Maine Department of Agriculture, Food and Rural Resources

Deering Building, 28 State House Station, Augusta, Maine 04333-0028



Governor Angus S. King, Jr. Commissioner Edward J. McLaughlin Tel: (207) 287-3871

**DATE:** 12/13/95

TO: Matt Scott, Chair, Fish Hatchery Task Force

FROM: Don Hoenig del

SUBJECT: Privatization

Just a short note to tell you some of my thoughts on the privatization issue. I'm having

Just a short note to tell you some of my thoughts on the privatization issue. I'm having somewhat of a hard time understanding why this is a dead issue. To put it simply, if some of the aquaculture companies are willing to hatch and start some fish for the State of Maine, why not take them up on the offer? What has the State got to lose? Refusal to consider this offer seems akin almost to looking a gift horse in the mouth. I also think the chance is there for some exchange of information with regard to technical support and experience in hatchery design. I realize some of the political realities you probably have to deal with so don't think I'm being critical of you -I'm not. Maybe I'm oversimplifying it but there seems to be an opportunity that deserves further exploration. Thanks for your leadership of this committee, Matt - you're doing a good job!

#### INTERDEPARTMENTAL MEMORANDUM

TO: Matt Scott April 26, 1995

FROM: V. Paul Reynolds

You asked for my views with regard to "the negative information in the press on privatization" and "the need to get our word out to fisherpersons."

- 1. My observation as a hardcore news consumer is that in terms of the media there is no common agenda pushing privatization of our hatcheries. There is, however, a strong populist perception that privatization is a panacea, a cure-all for inefficient government; this was prevalent in the public mind long before our hatchery bond issue. The main media drumbeat for privatization has come almost exclusively from George Smith who seems intent on extracting as much populist mileage as he can for SAM. Read his stuff! He is a stuck whistle on privatization, and has vastly complicated our pre-exisitng public relations problem.
- 2. Over the years, we've done many magazine articles on fish rearing, etc. While a hatchery booklet wouldn't hurt, it isn't likely to neutralize George's legacy or change the populist belief in privatization as a solution to inefficient government. If we are confident that our case against privatization is rock solid and will withstand tough media scrutiny, we can invite Roberta Scruggs and Tom Hennessey to really delve into the financial aspects of this issue. But we ought to be sure, for this is a double-edged sword. Give me the word, and I'll start greasing the skids.

- 3. As for a volunteer coordinator, "who will make calls and line people up for work" why not simply have the commissioner lay some groundwork with the assorted rod and gun clubs in his forums and then let the hatchery chiefs make their cases before the clubs for volunteers.
- 4. A final thought: In my short tenure with IF&W, I'm discerning a somewhat naive and common misconception about the magical possibilities of booklets, brochures, occasional PSAs and a press release or two. Public opinion, whether toward privatization or catch and release, cannot be changed without intense information campaigns and multi-media efforts. Think back on our last election campaigns, as an example of what I mean. Repetition is the key, and that involves lots of staff time and bucks. We can do it in I&E, but we need to carefully pick our shots. The list grows almost daily. I recommend that we take some staff meeting time to identify our targets and determine our priorities.

cc: Ray Owen
Fred Hurley
Peter Bourque
Steve Wilson

Steve / Ive
Please excuse the
Please excuse the
Typos / spelling etc
Secretary on on
secretary on on

Fax Cover Sheet

DATE:

November 3, 1995

TIME:

10:34 AM

TO:

Steve Swartz

Kennebec Aquaculture

FAX:

207-643-2770

FROM:

Brian Glebe

PHONE:

508-458-3391

Connars Bros., Limited

FAX:

508-456-1557

RE:

Fish Hatchery Task Force

CC:

Message

Joseph McGarrigle, MAA - 207-989-5795

Number of pages including cover sheet.

I would greatly appreciate your relaying to the committee that Connors Aquaculture Inc. - Hatchery Division would welcome the opportunity to participate with public organizations in any way which might increase the efficiency of fishery restoration programs. Connors operates two hatcheries in the State of Maine which, like your own, can accelerate the development and growth of salmonids using heated water.

We would be willing to allocate rearing space at these hatcheries for the purpose of furthering the efforts of fishery restoration and enhancement. Of economic necessity, this space commitment must not interfere with the normal operation of these facilities. Disease introduction is a major concern. Health inspections must be performed on any lots of fish brought into the facility and inspection costs will not be the responsibility of Connors. Similarly the number of lots should be minimized to reduce the disease risk. hatchery routine and operation of Scheduling must also conform to seasonal \_\_\_\_\_ the physical plant. Finally, Connors cannot assume any liability for stock losses during the time they are in our care or after they leave the facility.

It is also our intent to participant in the strategy to rehabilitate selected Maine This participation is not an endorsement of the Endangered rivers salmon stocks. Species Listing but rather a recognition that salmon stocks are in trouble and a collaboration effort by both public and private organizations can only be beneficial. Connors, with hatcheries on two listed rivers, the East Machias and the Pleasant, is in a strategic position to assist state/federal agencies with the restoration efforts in these systems Our participation is being considered by the River Specific Stock Committee.

#### Steve Swartz - Fish Hatchery Task Force - November 3, 1995

Page 2

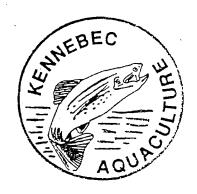
Another hatchery resource that is available to the salmon restoration effort is surplus production. Each year, our Gardner Lake Hatchery continues to buy? I large part of Penobscot and Saint John River origin. Current policy is to stock only fish one generation removed (F1) from wild stock. As a geneticist, I find this policy very arbitrary and difficult to explain to or hatchery staff (also anglers) who must kill these fish. We would be willing to donate and transport these part to any designated less river. If genetic pollution is a concern for the Penobscot and Saint John Rivers, for example, then an alternate such as the Union River should be considered.

Multiple dams on the Union have eliminated the historical salmon run. This river could be a model for restoration using surplus hatchery production. There is no cost involved and success could be gauged by adults retaining to the lower reaches for angling.

Historically, the salmon restoration effort in Maine has been conservative. Over concern for genetic integrity of specific stocksmay be a factor in the failure arrest the decline in populations. Restoration, especially in rivers where populations have been eliminated, is a numbers game. The out migration of smolts must exceed certain threshold levels so that sufficient adults return to successfully spawn and sustain the resource. Genetics is of lessor concern in this instance. Stocking numbers and natural selection would be the most important factors

Salmonid aquaculture is new and has the potential to assist in fishery rehabilitation. It is up to the policy makers and the resource managers to realize this new potential and make the best use of it. Certainly the willingness to assist exists within the aquaculture industry.

Filename: FHTF



#### Kennebec Aquaculture

采.F.D. <u>1</u> Box 2730

Solon, Maine 04979 U.S.A.

Tel. 207-643-2200 Fax. 207-643-2770

Quality Atlantic Salmon Smolts

Date: November 6, 1995
To: LD 991 Committee

From: Steve Swartz

At present, the Endangered Species Act and the antiquated condition of the state hatchery system are two issues which the concept of privatization should focus on. Kennebec Aquaculture believes we could best serve this interest by offering the use of our hatch and start feed facility. We have space available to hatch and start feed both the "so-called" river specific Atlantic Salmon stock for ESA, and a lot of salmonid eggs for the IF&W stocking program.

For those of you who had the opportunity to visit our facility in Solon, you saw first hand the latest advances in cold water aquaculture. I think we can demonstrate that a heated water system during hatch & start feed as opposed to using ambient water temperature will increase survivability and double if not triple fish growth in a one year growing cycle. This in turn, could increase total production utilizing the state's current growout facilities. A simple growth comparison of the two systems would demonstrate this.

Issues such as liability, health inspections, disease free eggs, transportation, date and length of study, etc. can easily be worked out later.

Besides making our facility available we will continue, as we have in the past, to assist IF&W with technical support and expertise in hatchery development and design.

We look forward to working with you to reach a common goal of improving our fishery resources.

Sincerely,

Steve Swartz Vice President & Managing Director



3 November 1995

Mr. Steve Swartz Kennebec Aquaculture Solon, Maine 04979

Dear Steve,

Please use this letter as our response to the Legislature's Joint Hatchery Committee and Atlantic Aquafarm's level of interest to participate in potential programs.

Atlantic Aquafarms, Inc. has a strong interest in examining distinct and directed proposals that combine the culture needs of the public sector with private company resources. From a conceptual overview, I feel private/public relationships in aquaculture have tremendous potential for all participants and that the private sector avails an extraordinary untapped resource to State and Federal biologists.

At this point, with very little detailed information available, it is difficult to represent specific interest in one or several collaborative culture projects. However, AAF would consider rearing salmonids for stocking in State waters, rearing "river specific" Atlantic salmon for restoration and providing large fish (6-13 lb) to enhance angling experiences (thereby increasing revenues to State resource agencies and stimulating local economies) in inland waters. We are already participating in a pilot marine project with the Department of Marine Resources using Atlantic cod.

Furthermore, we would consider offering AAF's extensive staff expertise in recirculating culture systems. Atlantic Aquafarm's hatchery facility currently has a capacity to rear 250,000 pounds while discharging as little as 100 gallons per minute. The proven recirculation technology can be applied when retrofitting existing State facilities that have insufficient water supplies and resulting low productivity.

Finally, I invite any and all Committee members to visit our facility.

David W. Miller

President



#### ATLANTIC SALMON OF MAINE

Limited Liability Company

November 8, 1995.

LD 991 Committee

Att. Mr. M. Scott, Deputy Commissioner Mr. S. Swartz, Kennebec Aquaculture, Inc.

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Dear Sirs,

This letter confirms Atlantic Salmon of Maine's commitment in supporting the public sector in its efforts to enhance the wild salmon runs in Maine rivers.

Our company strongly believes that the possible reversal of the present negative trend in wild salmon runs is linked to the establishment of new and creative solutions which only will be meaningful if the private and public sector cooperate in these tasks. The reason is that it likely will be cost prohibitive (in today's fiscal environment) for the public sector to undertake the necessary projects, while it for the private sector salmon companies is merely a matter of marginal cost to carry out the same tasks.

However, I find it of imperative importance that the public sector, during the course in developing such programs, do not, as possible side issues, create a regulatory environment which will increase the production cost of salmon in Maine. The Maine salmon industry is stretched to the limits already (by foreign competition), so any additional cost imposed on us related to the effectiveness of our breeding stock, our equipment, or other related matters will be of utmost negative influence. This is not an empty statement, but a statement of real life in the salmon industry today.

I look forward to working with you on this matters to our mutual benefit and is eager to learn more about your plans.

Sincerely yours,

Frank Gjerset

Main Office: P.O. Box 89 Fairfield, ME 04937 Tcl. (207)453-7925 Fax. (207)453-7143 Fish Farm: P.O. Box 276, Route 92 Machiasport, ME 04655 Tel. (207)255-6829 Fax. (207)255-6879 Processing Plant: P.O. Box 276, Route 92 Machiasport, ME 04655 Tel. (207)255-6714 Fax. (207)255-4350

Hatchery: P.O. Box 380, Hatchery Rd. Oquossoc, ME 04964 Tel. (207)864-3664 Fax. (207)864-5145

# Waste Discharges

#### STATE OF MAINE



# DEPARTMENT OF ENVIRONMENTAL PROTECTION

ANGUS S. KING, JR.

EDWARD O. SULLIVAN COMMISSIONER

January 24, 1996

Matthew Scott, Deputy Commissioner Department of Inland Fisheries & Wildlife #41 State House Station Augusta, ME 04333

RE: Fish Hatchery Licensing

Dear Matt:

The purpose of this letter is to respond to questions raised by the Fish Hatchery Task Force, of which you are the Chair, regarding the licensing of several commercial fish hatcheries that currently discharge to Class A waters.

There are two categories of discharges established in the classification standards for Class A waters [see 38 MRSA §464(2)(C)]. Discharges licensed after January 1, 1986 are allowed only if, in addition to meeting all Class A standards, the effluent discharged is equal to or better than the receiving water quality. Discharges licensed prior to January 1, 1986 are allowed to continue only until practical alternatives exist.

Downeast Aquaculture, now Atlantic Salmon Maine, Inc. in Rangeley was originally licensed for a discharge of treated waste water from a commercial salmon hatchery in December of 1986. At the time of this licensing, the hatchery discharged to the Class B Rangeley River in the Androscoggin River Basin.

Kennebec Aquaculture in Embden and Bingham Hatchery Inc. in Bingham were both initially licensed for a discharge of treated waste water from commercial hatcheries operations in 1988. At the time of initial licensing, both hatcheries discharged to Class B segments of the Kennebec River.

In 1989, the Legislature amended the water classification statute to upgrade the receiving waters for all three of these hatcheries to Class A. This legislation (P.L. 1989 Chapter 228) took effect on September 30, 1989.

#### Serving Maine People & Protecting Their Environment

Letter to Matthew Scott January 24, 1996 Page 2

It is the DEP staff's recollection that the January 1, 1986 date in the Class A standards was written into the law at the time of the revision of Maine's water classification system, and that the intent of the legislation was to "grandfather" existing discharges to waters that were being proposed for upgrade to Class A at that time. These discharges would not be required to have an effluent equal to or better than the receiving water quality. However, as noted above, the proposed classification upgrades to the Androscoggin and Kennebec River Basins were not actually adopted by the Legislature until 1989.

It is also the DEP staff's recollection that, at the time of the reclassification of the Kennebec River in 1989, the existence of the licensed discharges from the Atlantic Salmon Maine, Kennebec Aquaculture, and Bingham Hatchery facilities was known and that these discharges were not seen as precluding the proposed upgrades from Class B to Class A.

It is therefore the DEP's position that the 1989 upgrade of segments of the Kennebec River from Class B to Class A was not meant to preclude or otherwise affect the discharges from the Atlantic Salmon Maine, Kennebec Aquaculture, or Bingham Hatchery facilities. Based on this, the DEP is prepared to renew the licenses for these facilities as "grandfathered" discharges. The Attorney General's Office has informed us that it will support DEP in this interpretation.

Thank you for your consideration.

Sincerely

Martha Kirkpatrick, Dir

Bureau of Land & Water Quality

c\scott

#### STATE OF MAINE

# DEPARTMENT OF ENVIRONMENTAL PROTECTION

ANGUS S. KING, JR.

EDWARD O. SULLIVAN

January 18, 1996

Matthew Scott, Deputy Commissioner Department of Inland Fisheries & Wildlife #41 State House Station Augusta, ME 04333

RE: Licensing Status of State Hatcheries

Dear Matt:

The purpose of this letter is to clarify the licensing status of the state fish hatcheries owned and operated by DIF&W.

DEP's records show that waste discharge licenses were last issued in 1983 for the following nine state hatcheries:

- Casco Fish Hatchery
- Dry Mills Fish Hatchery (Gray)
- Embden Fish Rearing Station
- Enfield Fish Hatchery
- · Governor Hill Fish Hatchery (Augusta)
- · Grand Lake Stream Fish Hatchery
- · New Gloucester Rearing Pools
- · Palermo Rearing Station
- · Phillips Rearing Station

Our records show that these licenses are all currently expired, and that DIF&W has previously submitted timely applications for license renewals for all of its hatcheries. Our records also show that these licenses currently contain no effluent monitoring requirements.

Serving Maine People & Protecting Their Environment

#### Page 2

Please be advised that, in accordance with the Maine Administrative Procedures Act (5 MRSA §10,002) and DEP's Rules Concerning the Processing of Applications (06-096 CMR Chapter 2), the licenses issued in 1983 for DIF&W's fish hatcheries shall not expire and the terms and conditions of these licenses shall remain in effect until the DEP takes final action on the pending renewal applications.

On a related matter, the DEP hereby confirms that three of the state hatcheries--those in Enfield, Grand Lake Stream, and Phillips--were licensed in 1983 to Class B-1 receiving waters which have subsequently been upgraded to Class A. Since these hatcheries were all licensed prior to January 1, 1986, it is the DEP's position that, under the state's existing water classification system [38 MRSA § 465(2)(C)], the discharges from these hatcheries are allowed to continue only until practical alternatives exist, and that these discharges are "grandfathered" from meeting Class A standards, including the requirement that the discharged effluent be equal to or better than the receiving water quality.

As we have advised you and the Fish Hatchery Task Force, it is the DEP's intention to relicense all state, federal and commercial hatcheries in the state this year under a single consistent set of effluent limitations and monitoring requirements based on best practicable treatment standards and water quality criteria. Please bear in mind that actual effluent limitations will vary from facility to facility based on the quality of the receiving water and the impact of each discharge on existing water quality. Of special environmental concern are large effluent loadings to small streams, where dilutions under low flow conditions are a limiting factor.

Please call me at 287-3901 if you have any questions.

Sincerely,

Dana Paul Murch

Water Licensing Supervisor

na Paul Murch

c\scott2

cc:

Martha Kirkpatrick

Mickie Kuhns Peter Bourque

Charlie Brown

Dave Courtemanch

#### STATE OF MAINE



# DEPARTMENT OF ENVIRONMENTAL PROTECTION

ANGUS S. KING, JR GOVERNOR EDWARD O. SULLIVAN

January 31, 1996

Don Roberts Atlantic Salmon Maine, Inc. Box 380 Oquossoc, ME 04964

RE: Fish Hatchery Licensing

Dear Mr. Roberts:

The purpose of this letter is to clarify DEP's letter of January 24, 1996 to Matthew Scott, Deputy Commissioner of Inland Fisheries and Wildlife, regarding the licensing of several commercial fish hatcheries that currently discharge to Class A waters.

It is the DEP's position that the 1989 upgrade of the Rangeley River from Class B to Class A was not meant to preclude or otherwise affect the discharge from the Atlantic Salmon Maine hatchery facility. Based on this, the DEP is prepared to renew the license for this facility as a "grandfathered" discharge. This Attorney General's Office has informed us that it will support DEP in this interpretation.

I apologize for any lack of clarity on this point in our January 24 letter.

Sincerely,

Dana Paul Murch

Water Licensing Supervisor

me Paul Murch

c\rangeley

cc:

Steve Swartz

Bill Taylor

## Fish Health



Angus S. King, Jr. Governor

Ray B. Owen, Jr. Commissioner

#### DEPARTMENT OF INLAND FISHERIES AND WILDLIFE

December 14, 1995

Martha Kirkpatrick, Director Bureau of Land & Water Quality Maine Department Environmental Protection State House Station #17 Augusta, Maine 04333

Dear Martha:

Matt Scott, Chair of the Fish Hatchery Task Force, has asked that I respond to you regarding fish pathogens and waste discharge licenses for fish hatcheries. He has consulted with my Department's fisheries staff regarding our fish health statutes under Title 12 Subchapter VI Sections 7201-7205. In addition, we have reviewed our fish health rules relative to interstate transport and intrastate movement. Currently legal control over transmitted diseases can be exercised in movements of fish within this state only when fish or eggs are being transferred from a freshwater environment to the marine environment and visa versa.

As you are aware from our discussions with the Fish Hatchery Task Force, we are working with an Ad Hoc Aquaculture Committee to try to provide strong fish health protocols which will help to protect the public resource as well as provide for the aquaculture industry.

I see no need to have the current requirement regarding fish pathogens on the DEP Wastewater Discharge Licenses. It is my understanding that the Task Force will be recommending deleting this requirement from the discharge licenses.

Thank you for seeking our opinion.

Yours truly,

RBO:dl

cc: Matt Scott

Ray B. Over Joynes, Ray B. Owen Jr.

Commissioner