

SCOMM

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RESEARCH AND BACKGROUND



Alaska State Legislature

SENATOR RICHARD I. ELIASON

President of the Senate

P.O. Box V
Juneau, Alaska 99811
(907) 465-3755

June 28, 1991

^F1^

Dear ^F2^:

I am writing to you because of your involvement and interest in the State's hatchery and enhancement program. The Legislature is currently undertaking a thorough review of this program. Our intensified efforts have been underway for nearly two decades now, and we believe it is time to look back to where we started, see where we are today, and determine where we want to go with the program in the future, ranging from fine-tuning to possible redirection.

The work on this project is primarily being done by legislative staff, with the assistance of the Legislative Research Agency and the Department of Fish and Game. The project's chief coordinator is Molly McCammon. She is on loan from Senator Lyman Hoffman for this project, and can be reached at 465-4453 or P. O. Box V, Juneau, AK 99811. If you have any questions, comments or concerns, be sure to contact her directly.

I am enclosing for your information a copy of the project work plan, a list of all the persons involved in the research and a tentative time schedule.

Some people have expressed concern about what the intent of this group might be. I want to put your fears at rest. The first stage of this process is to gather information about the program and identify the various

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Page Two

issues, concerns and conflicts. We're counting on your help with this process. Once we get a draft report of this information, we'll be looking to all of you to help us develop possible options for strengthening, improving, and possibly redirecting the program. I cannot emphasize enough how strongly we believe that your participation in this process is vital. At this point, you can be involved by reviewing the enclosed work plan, and contacting Molly or the individual team leaders with specific comments. We're also looking at holding an intensive workshop to discuss the future of the hatchery program sometime in the Fall. Once a final report is issued, I plan to hold extensive formal hearings on it before the Senate Special Committee on International and Domestic Fisheries next legislative session.

I hope you are as excited about this program as I am. There is a lot of support for the hatchery program. I think a review of this nature can only make it better.

Sincerely,

Senator Dick Eliason

HATCHERY RESEARCH PROJECT WORK PLAN

I. History & Development of Hatcheries in Alaska and worldwide

- A. Research legislative history and intent of hatchery program, including fisheries enhancement loan program, with focus on legislative intent.
- B. Develop chronology of key appropriations, bond authorizations and substantive legislative enactments.
- C. Acquire data for 10-15 year period of total salmon production (natural, hatchery, and farm) worldwide, by country, and in Alaska.
- D. Summarize current national policies and trends regarding salmon production in other nations.
- E. Analyze role of hatcheries in international treaties (i.e., U.S.-Canada, Yukon, INPFC)

Team leader: Molly McCammon, c/o Senator Hoffman, P.O. Box V, Juneau, AK 99811, 465-4453.

II. Economics and Marketing

Purpose: to provide information on impact of salmon hatchery production on price, fishing revenues, processing revenues and the total value (benefits minus costs) of salmon fisheries in order to determine if 1) the current levels of Alaska salmon harvests are oversupplied or undersupplied from a supply market perspective and 2) increased production of salmon will lower prices, fishing revenues, processing revenues, and total value of salmon fisheries.

- A. Conduct review of current economic and marketing studies and write a summary of these.
- B. Assess need for additional information or research.
- C. Compile relevant Alaska production and price information, and international production and price information.
- D. Develop request for proposals for additional research, economic assessments, etc. if needed.

Team Leader: Ginny Fay, c/o Senator Cotten, P.O. Box V, Juneau, AK 99811, 465-3711.

III. Fisheries Management

A. Review current management policies as expressed in Alaska Constitution and statutes, ADF&G and Board of Fisheries policies and regulations, regional planning process.

B. Identify issues and conflicts

1. Hatchery stock and wild stock harvest
2. PNP broodstock
3. Cost recovery fisheries
4. Allocation conflicts (between gear groups and user groups)
5. Goals of state hatcheries, PNP's and regional associations
6. Use of hatcheries as mitigation tools
7. Conflicts and coordination with federal policies
8. Challenges of in-season management: interaction of economics, wild stock protection, terminal fisheries, and fish quality concerns
9. Hatcheries that are exempt from state process

C. Biological information

1. Review carrying capacity for salmon by species and area
2. Review state genetics policy
3. Review diseases screening and policy
4. Monitor Genetics Policy Review Team headed by FRED geneticist Jim Seeb

D. Review legal issues regarding state & private hatcheries

1. Review legal opinions of AG, Legislative Legal Services, and private attorneys
2. Review Board of Fish letter for legal issues.

E. Identify and review current tagging techniques

1. Use by PNPs or state for tracking and counting
2. Review of technological and economic feasibility
3. Evaluation of hatchery contribution and who pays for it

F. Review salmon hatchery production and harvest

1. Current versus planned
2. Impact on management

G. Review role of regional aquaculture associations

1. Financing
2. Determining production
3. Interaction with state and PNPs
4. Deciding on allocations

**Team leaders: Frank Homan (465-3818) and Dale Staley (465-4766),
P.O. Box V, Juneau, AK 99811.**

IV. Roles and Responsibilities in Statewide Enhancement Program

- A. State role in hatcheries**
 - 1. FRED Division
 - 2. Private nonprofit sector
 - 3. Review FRED's strategic plan for the 90s
 - 4. Identify issues of concern
- B. Review state planning process (regional planning)**
 - 1. Purpose and function overall and in relation to:
 - a) Location of hatcheries
 - b) Assessing viability of new & existing hatcheries
 - c) Determining changes in techniques, species, & production levels
 - d) Providing development in economically depressed areas
 - e) Providing for development of non-salmon species
 - f) Participation in regional planning team process
 - 2. Statutory limitations
 - 3. Original goals and objectives
 - 4. Identify problem areas
- C. Review hatchery funding**
 - 1. Revolving loan fund
 - a) Review loan policies
 - b) Determining project viability
 - 2. Legislative appropriation
 - 3. Aquaculture associations and gear group participation
 - 4. Private financing
 - 5. Federal funding
 - 6. State agency involvement in financing - ADF&G and DCED
 - 7. Funding of sport fish, subsistence and commercial fish hatcheries
 - 8. Identify problem areas
- D. Review environmental regulations**
 - 1. Scope of current regulations
 - 2. Identify problem areas

Team Leader: Barnaby Dow, P.O. Box V, Juneau, AK 99811, 465-4947.

V. Recommendations and options for the Statewide Enhancement Program

Develop options and possibly recommendations of potential actions by legislature, state agencies, Board of Fisheries, regional aquaculture associations and others.

Note: No work plan has been developed for this section, pending completion of the initial phase of the project which is primarily information gathering and issue identification. This section will be developed following input from all the affected user and interest groups and further direction from legislators.

Overall Hatchery Project Coordinator: Molly McCammon
P.O. Box V
Juneau, AK 99811
465-4453

HATCHERY RESEARCH PROJECT

- | | |
|---------------------|--|
| June 15 | Study groups work plans developed and submitted to coordinator |
| Sept. 1 | Status report on study group work to coordinator |
| Oct. 1 | Entire research group meeting to review status of project and information gathered to date, draft report |
| Oct-Nov | Tentative - intensive hatchery issue workshop |
| Nov. 1 | Research group meet with legislators to brief and review group's direction |
| Dec. 1 | Rough draft of report with issues, options and possible recommendations due |
| Jan. 15, '92 | Final report to Senate Special Committee on Domestic and International Commercial Fisheries |

HATCHERY RESEARCH PROJECT STUDY GROUPS

HISTORY & DEVELOPMENT OF HATCHERIES in Alaska and world-wide

- * Molly McCammon
- * Gordon Harrison, Leg Research
- Barnaby Dow
- Kate Tesar
- Karl Ohls

MARKETING & ECONOMICS

* Ginny Fay	Tom Van Brocklin
Kate Tesar	Sharon Clark
Landa Holtan/Lori Oliver	
Leg. Research	

FISHERIES MANAGEMENT

* Frank Homan	Johanna Munson
*Dale Staley	Paula Terrel
Joe Ambrose	Karl Ohls
Molly McCammon	

STATE ROLE IN HATCHERIES

* Barnaby Dow	Karl Ohls
Molly McCammon	Karan Dersham
Ginny Fay	Sharon Clark
Kate Tesar	Brad Pierce - OMB

HATCHERY RESEARCH PROJECT

Molly McCammon, Coordinator (Hoffman)	Capitol, Rm 510 P.O. Box V Juneau, AK 99811 465-4453
Mary McDowell (Ellason)	Box 206 Angoon, AK 99820 788-3223
Paula Terrel (Jones)	Capitol, Rm 30 P.O. Box V Juneau, AK 99811 465-4907
Kate Tesar (Grussendorf)	Capitol, Rm 208 P.O. Box V Juneau, AK 99811 465-3824
Frank Homan (Sturgulewski)	Capitol, Rm 427 P.O. Box V Juneau, AK 99811 465-3818
Dale Staley (Duncan)	Capitol, Rm 119 P.O. Box V Juneau, AK 99811 465-4766
Barnaby Dow (Ulmer)	Capitol, Rm 421 P.O. Box V Juneau, AK 99811 465-4947
Gordon Harrison (Leg Research)	Goldstein, Rm 218 P.O. Box Y Juneau, AK 99811 465-3991
Ginny Fay (Cotten)	Capitol, Rm 11 P.O. Box V Juneau, AK 99811 465-3711
Karl Ohls (Zharoff)	Visit. Sen Office Anchorage LIO 3111 C. Street Anchorage, AK 99503 561-2003

Joe Ambrose (Taylor)

Ketchikan LIO
352 Front Street
Ketchikan, AK 99901
225-8088

Johanna Munson (Menard)

Mat-Su LIO
165 E. Parks Hwy
Wasilla, AK 99687
373-2878

Tom Van Brocklin (Kubina)

Valdez LIO
P.O. Box 1969
Valdez, AK 99686
835-2111

Sharon Clark (Gonzales)

Rt. 2
Nenana, AK 99760
582-2775

Karan Dersham (G. Phillips)

Pioneer Ave.
Homer, AK
235-5555 (home)

Shanon McCarthy (Sharp)

Fairbanks LIO
119 N. Cushman
Suite 211
Fairbanks, AK 99701
373-2878

Landa Holtan/Lori Oliver (Hudson)

Capitol, Rm 114
P.O. Box V
Juneau, AK 99811
465-3744

Jay Nelson (Davidson)

Anchorage LIO
3111 C Street
Anchorage, AK 99503
?

OUT of CONTROL

Quality, quantity woes plague fishery

By HAL BERNTON Daily News business reporter

ESTHER ISLAND HATCHERY, Prince William Sound — Rene Pellissier looked out of the window of his second-floor office and surveyed a scene that represented a hatchery man's hell.

The hatchery bay was filled with more than 2 million pink salmon, fish that frothed the water into whitecaps with their frenetic jumping and milled in dark schools in front of the hatchery docks. These fish represented one of the world's greatest man-made runs of salmon, a run that Pellissier had worked the past half-decade to help create.

But no one wanted to buy these pinks, nor another million en

route to the bay. Instead of food for the world, Pellissier had helped create a nightmare return of rapidly aging fish prized only by scavenging seagulls and island bears.

"When I was a kid I used to read the headlines — 'dairy farmers dump milk down the gutter', and I could never understand how that could happen," Pellissier said. "Now, I think I understand."

The hatchery fish, in the final phase of a two-year life cycle, eventually would have rotted and sunk to foul the bottom of the hatchery bay. To prevent such pollution, fishermen this week scooped

up more than 2.2 million fish from Esther and two other Sound hatcheries and loaded them on tender boats for high-seas dumping. Almost 9 percent of the more than 25 million pinks caught this year were deep-sea dumped.

This huge waste of the region's salmon harvest represented a grim finish to one of the most turbulent years in the history of the state salmon industry. It resulted from a combination of glutted markets, some very strange fish behavior and the difficulties in managing a Sound harvest now dominated by hatchery fish.

The dumping fiasco marks
Please see Page F-5, SALMON



Above, David
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Juan hatch
processor v

Photos
by
BILL ROTH
Anchorage
Daily News

Moldova	3 750
Azerbaijan	3 750
Kazakhstan	3 720
Turkmenia	3 370
Kirghizia	3 030
Uzbekistan	2 750
Tadzhikistan	2 340

Sources: Plancon, Washington

*Latest available.

The New York Times

SALMON: Where to now?

Continued from Page F-1

a brutal rite of passage for Prince William Sound Aquaculture Corp., the fishermen-dominated hatchery association that until recently has had a single-minded focus on increasing production. And it underscores the difficulties of producing quality seafood in a Sound where most of the salmon are hatchery-reared fish that stampede back to a few bays, then quickly start to deteriorate as they ripen in a final spawning phase.

"What is important is changing the entire system because the system doesn't work," said Floyd Hutchens,

a Sound fisherman.

Aquaculture corporation officials believe many of their problems result from a lack of marketing, and next year they may launch an aggressive new sales effort that would bypass traditional processors and find new buyers for the fish.

This new push is setting off a bitter confrontation with Sound processors, who think the hatcheries should stick to raising fish. "PSWAC is out of control," said Ray Cesarini, president of Sea Hawk Seafoods in Valdez.

Successful marketing.

Please see Page F-6, SALMON

who was empowered to award the huge contract to the Dallas-based producer of oilfield equipment. One of the ministries Dresser was dealing with was almost dissolved. And Dresser's Soviet partners, ministries responsible for chemicals and heavy machinery, were struggling to find the hard currency to finance the project.

Although last week's kaleidoscopic twists and turns leave many daunting uncertainties about the Soviet Union's future, Dresser's chairman, John J. Murphy, is confident that August's rush of events will help end the logjam on Dresser's project and the stalled projects of dozens of other Western companies.

"Within the Russian republic I think things will accelerate very quickly, and that should also be true for the Ukraine," said Murphy. "The people who were blocking reform are gone."

Westerners are reassured by two developments: Not since 1917 have the Soviet Union and its republics been so committed to building a market economy, and not since that time has the coun-

The coup's failure has galvanized a rapidly growing desire to get on with the conversion to a market economy," said Ronald Freeman, first vice president of the European Bank for Reconstruction and Development, the new London-based bank formed to help Eastern Europe. "Everyone, at every level of government, seems to be pointing in that direction."

Many companies have shunned investing in the So-

and rule of the game, you're talking five or 10 years," said Jeffrey Hertzfeld, a Paris-based American lawyer who works with Western investors in the Soviet Union. "But if you wait five years, you might find that a lot of the most attractive partners have already made commitments to other companies."

Western executives making their first visits to Moscow may be shocked by the difficulties of living and do-

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P205/70R13	66.95	P225/70R15	88.95
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MON.	SEP. 2	N.Y. GIANTS	5:00 p.m.
TUE.	SEP. 3	ATLANTA	12:00 noon

SALMO

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for both the corporation and processors — depends on a quality product that can compete in today's crowded markets. But in recent years, quality has taken a back seat to the difficult task of managing a harvest in which hatchery fish vastly outnumber the wild stocks.

Corporation officials say top quality fish can be taken hatcheries, as long as the fish are harvested as soon as they enter the hatchery bays.

But the easiest way to ensure quality fish — the silver-bright, firm-fleshed pinks prized by consumers — is to net the salmon in the straits where they first enter the southwest Sound from the sea. These straits are like salmon highways, filled with both hatchery and wild fish that later move into more than 100 small creeks to spawn. Both processors and fishermen have lobbied for a series of short openings in these areas spaced throughout the season.

But state Department of Fish and Game officials believe that fishing these salmon highways early in the season could jeopardize weak wild runs that they are under orders to protect. Such fishing also cuts off the flow of fish moving into hatcheries. Those fish, which total up to a third of the harvest, are caught and put up for bid by the aquaculture association to meet operating expenses.

To protect the wild stocks and the aquaculture corporation, state fishery managers in recent years — much to the dismay of fishermen — have often concentrated the fleets in small areas around the hatcheries.

In such zones, state managers can be sure that hatcheries get a share of the catch, and that few wild stocks are swept up in the nets. But quality can easily suffer. This year, the hatchery fish entered the special zones 10 days later than normal. By that time, their skin was already darkening and their flesh softening into a second-rate product that processors said weren't worth canning.

"ASMI (the Alaska Seafood Marketing Institute) goes around bragging about what nice silver fish this state has, then we end up with this stuff," said Jim Poor, the frustrated plant manager of Peter Pan Seafoods in Valdez.

IN IT TOGETHER

In 1975, Prince William Sound fishermen, processors, sportsmen and communities banded together to create the state's first non-profit hatchery association to boost weak runs of wild pinks.

In the beginning, the corporation embraced a simple formula that kept everybody happy. Hatcheries would make the fish. Fishermen would catch most of the fish. And processors would can and freeze the final products.

"Everybody was in it together," said Poor of Peter Pan Seafoods.

The aquaculture corporation prospered and developed one of the most successful salmon-rearing programs in the world. By the late 1980s, as hatchery production began to peak, annual pink harvests climbed to more than 30 million fish. That was more than six times the catch in the lean years of the early '70s.

To accommodate all this new fish, processors expanded capacity, and some major players — such as Peter Pan — moved into the Sound and built new facilities.

Fishermen's gross earnings soared, reflected in the value of limited entry permits that jumped from less than \$50,000 to more than \$300,000.

The aquaculture corporation meets most of its expenses by catching hatchery fish, and its budgets kept expanding.

One of the biggest budget items was the construction of its third major pink hatchery, an \$8 million project that would transform a flank of the Sound's Esther Island into North America's largest salmon producer. With the development of Esther Island, the corporation anticipated hatchery fish would provide 70 percent of a roughly 40 million annual pink harvest.

For state Department of Fish and Game biologists, the job of managing these hatchery harvests has become complicated.

"Our initial fear was that we would end up with hatchery stocks vastly outnumbering wild stocks and subject the wild stocks to much higher exploitation rates," said James Brady, a state Department of Fish and Game biologist who helps manage the harvest.

Wild stocks remained strong through the mid-'80s, and state managers were able to allow wide-ranging harvests over much of the Sound. Then in the late '80s, as hatchery stocks began to dominate the returns, wild runs — for still undetermined reasons — began to sharply diminish.

But harvests — thanks to hatchery returns — remained strong. And until recently, aquaculture corporation didn't seriously question whether there would be markets for all these fish.

"We worked on the biology, on getting the production system on line for a stable supply of fish," said Brian Ailes, who served in the early '80s as president of the aquaculture corp. "The basic strategy was that the market would then come along."

"It's never been a problem of too many fish. It never entered anyone's mind," said E.J. Cheslien, current chairman of the aquaculture's board.

THE CRACKS SHOW

By the winter of 1991, aquaculture corporation officials realized they had a marketing program.

The past three years had seen some of the biggest pink runs in Sound history, and most of the fish had gone into cans that many consumers had no desire to buy. The cans were stacking up by the millions in processor warehouses, and state Department of Fish and Game biologists were predicting a record 1991 pink return of more than 120 million fish.

The corporation sold its fish in big lots put out to bid. In 1990, about 100,000 fish had received no bids and rotted in bays. And hatchery officials feared there would be no bidders in 1991 for any of the fish.

"There is a very real possibility that the processors may refuse to buy as many as one-third of the pink salmon projected to return to Prince William Sound," said Heather McCarty, a spokeswoman for the corporation in a January 1991 interview.

State Commerce Department officials surveyed processors and as late as the third week in July thought there would be enough capacity to handle the fish.

They based their assessment on predictions by state fishery biologists that the Sound harvest would fall far short of expectations. Wild runs, which generally return in the early part of the summer, appeared to be a bust. And the hatchery runs appeared to be either way late or weak, biologists said.

But fishermen had hired pilots to survey the Sound, and those salmon spotters had a different opinion.

The pilots said there were a lot of pinks milling in the Sound and Gulf of Alaska. The fish were darkening and showing a peculiar reluctance to head for the bays. "It was strange. The fish were kind of lost, just circling around," said Dennis Thacker, one of the spotter pilots.

In late July, fishermen met with state fishery managers and asked for a small opening or test fishery to try and determine the strength of the run. "We pleaded with them and told them if they didn't give us an opening the run would get away from us," said Hutchens, a Sound seine fishermen for the past 23 years.

But state biologists felt they couldn't risk an opening that might sweep up wild stocks and hatchery fish that the aquaculture corporation, according to a Board of Fish regulation, had first claim on to harvest for operating expenses.

"No one had ever seen a run this late before," said Brady. "The fish going back to the PSWAC hatcheries didn't amount to hardly any."

the crash: Where to from here?

Day is a member of the aquaculture corporation but he was becoming increasingly unwilling to sacrifice some of his catch to help the hatchery.

"I blame the hatchery program as much as anyone. They were screaming don't open, don't open. We want to get our hatchery sales first. Hold off. Hold off. Hold off. Hold off," said Bob Day, a seine fisherman.

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Please see Page F-7 SALMON

eries survive. Even though the corporation is controlled by fishermen, Day and some other fishermen have begun to perceive the hatchery group as a hostile force.

"I get guys on my (corporation) board who say 'you guys are taking our fish.' That's how bad its gotten," said Cheshier, the seine fishermen who chairs the board. "They got it all wrong. If it wasn't for PSWAC, you wouldn't see any of these \$500,000 to \$1 million seine boats that you see out in the harbor." During the second week in August, state biologists finally opened the Sound to fishing, and the fleet responded with a record one-day harvest of 3 million pink salmon.

Processors were quickly overloaded with salmon and placed fishermen on strict catch limits.

As the darkening fish began to rush back into hatchery bays, the processors declined to bid on any of the hatchery fish.

SO MANY FISH . . .

Jim Poor opened up two cans of canned salmon at the \$15 million plant Peter Pan has built at Valdez. One held the kind of pink meat that the plant strives to produce for world markets. The other was a mass of bitter-tasting, pale-white meat wrapped around big pieces of bone. This was the kind of canned product that made up much of the late August pack.

The large number of bones resulted from the small size of this year's fish, which continues a trend of the past few years as hatcheries have increased production, Poor said. Poor then displayed logbooks submitted to the National Processors Association that detailed the dark-skinned, low-grade product — a log book available to any buyers seeking to purchase this fish. "We got to have top quality product to compete, and we just can't do it with this stuff," Poor said.

Next door to the Peter Pan plant, Cesarini of Sea Hawk Seafoods was struggling to produce headed-and-gutted pinks for frozen markets. The quality of one of the loads brought back to the plant was so bad that he ended up having to destroy the fish.

Some processors would like to see a new system develop that would allow fishermen to catch all the salmon, then pay out a portion of their earnings to finance hatchery operations. Under that system, state biologists would still have to protect wild stocks but wouldn't have to worry about allowing large numbers of salmon to build up in front of the hatcheries.

"Let's get PSWAC out of sales," Cesarini said.

The aquaculture corporation, however, isn't about to stop catching fish. The corporation's leaders feel betrayed by processors who set prices at the lowest point in more than a decade, then refused to even buy the hatchery fish.

This year, the aquaculture corporation will finish deep in the red. If that happens again, the corporation might not be able to survive. And neither corporate leaders nor fishermen want to trust the future to processors. "We're going to have to bypass processors because they have fallen down on their responsibilities," Hutchens said.

PSWAC officials believe the problem isn't hatchery overproduction but rather a lack of marketing.

They are trying to make deals with major food processors to find new uses for pink salmon. Perhaps microwave packets of pink for low-cal dinners, kippered snacks, or nuggets of deep-fried pinks. There are also efforts to develop a surimi fish paste from pink salmon that could be used to make simulated crab and other seafood products.

"Canned salmon is over the hump and going the other way. The people who eat

canned salmon are dying," said Howard Johnson, a seafood consultant who works for the corporation. "We've got to think in terms of Yuppies who grew up with microwaves."

In fall and winter board meetings, the corporation may consider making long-term sales of hatchery fish at a fixed price to companies that want to develop new products. Such tactics used to be opposed by fishermen, who feared such sales would dictate the price.

"It used to be seen as some sort of Communist-type notion," said Tom Copeland, a Sound fishermen and corporation member.

But Copeland and other fishermen say it's now time to move ahead.

'NEVER AGAIN'

On a blue-sky August day that would have been perfect for fishing, Hutchens, Copeland and a half-dozen other fishermen were tied up

off the Port San Juan hatchery. It was a prime day for fishing, but all of the processors were plugged with salmon.

There was nothing to do but waste away the day. Hutchens stood on the hatchery dock, watching the huge school of unwanted salmon build up in the bay. A big dark storm cloud of a school.

"Never again," Hutchens said.

The next day, he went to work dumping fish.

HATCHERY FORUM

Alaska Department of Fish and Game
Commissioner's Conference Room
Juneau, Alaska

March 20, 1991

Sponsored by:

The Alaska Department of Fish and Game (ADF&G)

Division of Fisheries Rehabilitation, Enhancement and
Development (FRED)
Division of Commercial Fisheries
Division of Sport Fish

The Alaska Department of Commerce and Economic Development (DCED)

Division of Investments

Attendance:

Bart Watson, Armstrong-Keta
Ladd Macaulay, Douglas Island Pink and Chum (DIPAC)
Steve Andison, Gunnuk Creek Hatchery
Brock K. Meredith, Gunnuk Creek Hatchery
Paul McCollum, Valdez Fisheries Development Association (VFDA)
Bob Kellar, VFDA
Larry Malloy, Kodiak Regional Aquaculture Association (KRAA)
Bruce Bachen, Northern Southeast Regional Aquaculture Association
(NSRAA)
Pete Esquiro, NSRAA
Howard Ferren, Prince William Sound Aquaculture (PWSAC)
Jeff Olsen, PWSAC
Bruce Suzumoto, PWSAC
Donald Amend, Southern Southeast Regional Aquaculture Association
(SSRAA)
Dick Eliason, Senator
Dan Austin, Senator Fahrenkamp
Ted Beilman, Senator Kerttula
Barnaby Dow, Representative Fran Ulmer
Sharrol McCarthy, Senator Sharrp
✓ Molly McCammon, Senator Hoffman
Jay Nelson, Representative Davidson
Karl Ohls, Senator Zharoff
John Walsh, Representative Walsh
Susan McGregor, Alaska Trollers Association
Jeff Pfundt, Petersburg Vessel Owners

Scott McAllister
 Jim Bacon, South East Alaska Seiners
 Geron Bruce, United Southeast Alaska Gillnetters Assoc. (USAG)
 Charlie Polk, USAG
 Bruce Weyhrauch, Faulkner, Banfield, Doogan and Holmes Law Offices
 Bob T Kacz, Alaska Commercial Fishermen Magazine
 Bob Clasby, ADF&G, Division of Commercial Fisheries (CF), Juneau
 Ken Florey, ADF&G, CF, Anchorage
 Scott Marshall, ADF&G, CF, Douglas
 Kristen Munk, ADF&G, CF, Douglas
 Brian Allee, ADF&G, Fisheries Rehabilitation, Enhancement and
 Development (FRED), Juneau
 John Burke, ADF&G, FRED, Douglas
 Bob Burkett, ADF&G, FRED, Juneau
 Karen Crandall, ADF&G, FRED, Juneau
 Kevin Duffy, ADF&G, FRED, Juneau
 Jeff Hartman, ADF&G, FRED, Juneau
 Ron Josephson, ADF&G, FRED, Douglas
 Steve McGee, ADF&G, FRED--PNP, Juneau
 Jeri Museth, ADF&G, FRED--PNP, Juneau
 Keith Pratt, ADF&G, FRED, Douglas
 Dave Gadet, ADF&G, Sport Fish Division (SF), Douglas
 Fred Gaffney, ADF&G, SF, Douglas
 Dave Benton, ADF&G, Commissioners Office
 David Massey, DCED, Division of Investments
 Martin Richard, DCED, Investments
 Steve White, Alaska Department of Law
 Kevin O'Sullivan, Alaska Seafood Marketing Institute (ASMI)
 Deena Henkins, Alaska Department of Environmental Conservation,
 Wastewater and Water Treatment Section

SYNOPSIS OF MEETING

CALL TO ORDER: Brian Allee, Director, FRED Division, called the meeting to order at 8:15 A.M. He stated that the forum was developed to talk about joint issues involving hatcheries and state. The agenda items were issues that were requested by and of interest to the participants. He asked that participants review the agenda to see if other topics should be added. He then introduced Carl Rosier, ADF&G Commissioner.

Commissioner Rosier welcomed the forum participants. He said he would like to spend the day at the forum, but would be unable to do that. He stated that he had a career with the Alaska Department of Fish and Game before working with the federal government. He was pleased to be back with the department. He believes we have an agency that can manage the fish and wildlife resources in the state, and that is it the best agency in the USA.

Commissioner Rosier stated that the hatcheries make contributions to all the user groups. He pointed out that issues on the agenda indicate the success of the program. The Commercial

Fisheries Division is doing an excellent job of management, but they need more information. With the decline in revenue, there is going to be a greater need for cooperation. The department is going to have to work in partnership with the PNPs. The issue of common property fisheries is escalating. Commissioner Rosier said he believes the solution is out there somewhere. He hopes this forum have positive results.

Brian Allee requested that all participants introduce themselves. After introductions, he welcomed Larry Malloy, Executive Director, Kodiak Regional Aquaculture Association, as a new participant. He also noted that Alaska Peninsula/Aleutian Islands/Area M, Chignik and the Yukon areas are discussing the formation of new associations.

Agenda Item 1.a. Hatchery transfer/contracting -- Brian Allee.

The user pays concept is sweeping the state. The people who benefit from state government, will have to pay for it. Commercial fishermen are viewed by the general public as the primary beneficiaries of public hatcheries. For that reason, contracting of these facilities to aquaculture associations is being done.

There are two contracting models:

1. The Kitoi model involves a contract with the association for operation of the facility by ADF&G, FRED Division. The association does cost recovery and pays ADF&G to operate the hatchery.
2. The second model involves 100 percent operation of the facility by the regional aquaculture association (RAA). The RAA operates and funds the hatchery 100 percent such as PWSAC contracting Cannery Creek Hatchery or NSRAA contracting Hidden Falls Hatchery.

When no general funds are available to go into hatchery operations, contracting is the only way to maintain the production. The RAAs can take out loans for capital improvements. Capital improvements to the facilities that belong to the state also belong to the state. The users pay. Another example of user pays is the federally funded program for trout benefit the sport fisheries. Dingle-Johnson (D-J) monies pay the cost of trout enhancement.

Brian Allee stated he believes it is better to contract facilities to RAAs and keep them open, than to have to close them. Right now the department is looking at six unfunded hatcheries (Main Bay, Beaver Falls, Gulkana, Tutka, Russel Creek and Sikusuilaq) which it doesn't want to close before contracting out operations. The department did not get an adequate maintenance budget for these public facilities. Director Allee talked about capital budget requests. He pointed out that RAAs were set-up to allow a

mechanism for financing--cost recovery. But public facilities have no financing mechanisms.

The department has been requested to turn its rehabilitation and enhancement expertise to the north-northwestern area of the state. Allee pointed out that there are no hatchery facilities in that area. The department will also focus on the production of fish for subsistence and sport fisheries and some research, such as with king crab.

There was discussion following the presentation. Participants wanted to know about budget break-outs and the user pays concepts. Allee explained that the facilities are publicly owned and must be upgraded in order to contract. The cost of the upgrades is estimated at \$13 million. The public perceives the facilities to benefit primarily commercial fishermen. Contracts must be negotiated prior to July 1, 1991. The RAAs will have to imprint fish to return to the facilities for broodstock and cost recovery. Don Amend stated that the request is for a capital improvement, a one-time infusion, which will save money in the long run. The monies are coming from the general fund and will not affect the loan program.

Molly McCammon stated she did not know if ADF&G was going to get the funds. Despite the fact that commercial fisheries were one of the driving forces behind statehood, they are now losing status. People in the state no longer recognize the commercial fisheries contributions. There is a need for good public relations work.

Agenda Item 1.b. Enhancement on inland river systems -- Brian Allee.

Legislators requested Yukon River enhancement as a means of economic development. There is interest in the area in forming a RAA and in self taxation. They are interested in management of the fisheries and enhancement opportunities. A special request has been made for funds to develop a plan and to organize the RAA. There is also US/Canada Treaty mitigation interest. Clear Hatchery will be expanded to handle fall chum and chinook salmon. When the forming RAA is organized, it is the department's understanding that it will provide funding for operation of the hatchery. The area is asking for funds and plan to get their share. They believe enough funding has already gone into other parts of the state.

Ken Florey talked about site selection and the problems associated with the area from the management aspects. He wanted to know if the department was being realistic about what its telling the residents. Jeff Pfundt thought that CWT tagging fish from that area would be advantageous when considering the high seas trawl by-catch. When asked, Brian Allee told the group that \$13.1 has been requested for the Yukon River region, including funding for expansion of Clear Hatchery.

Agenda Item 1.c. Salmon price forecasting -- Jeff Hartman.

Jeff Hartman talked about an economic study he co-authored entitled "A Comparison of Demand Models for Alaska Salmon." The study was funded by Prince William Sound Aquaculture Corporation. There have been refinements to the model since the original study was done.

The slide presentation included information about the study's objectives, variables, observed and average price models, and major conclusions. The economic models developed in this study predict prices more accurately than averages of historical prices or price trends. Models for coho, chum, and chinook salmon predict prices with acceptable precision and suggest that prices of these species are not responsive to increases in catch of the respective species. Pink salmon models showed conflicting results on the price responsiveness, and further modeling work is needed with pink salmon and sockeye salmon. Some of the improvements to the models that could occur with minimal modeling costs are: (1) combining of import and export based models with the models developed by Boyce, (2) developing regional models capable of estimating changes in price in SE Alaska with a given change in catch in PWS (or any other combination), and (3) incorporating the effects of other substitutes such as farmed salmon harvests. Jeff asked for ideas that might be helpful to improve the models.

Agenda Item 1.d. Sale of hatchery broodstock -- Paul McCollum.

This issue arose because Valdez Fisheries Development Association (VFDA) has been selling hatchery broodstock carcasses. They were told by the Department of Environmental Conservation (DEC) that they needed a processor license to continue sales of fish that were cut open. VFDA was receiving very little benefit from the sales, but disposal of carcasses can be expensive. Paul said that VFDA understood the problems of putting dark fish out on the market. They got the processor license. Now they are being told that they may not be able to sell carcasses at all. There is a question of "wholesomeness". VFDA wants a decision. Why should the sale of carcasses be restricted? Is this a decision that is health-related or is it the sale of dark fish? VFDA gave away carcasses last year for dog food. Apparently, the federal FDA has identified a lack of protein in dark fish. It was pointed out that there is a need to proceed with care on this issue as this is a new class of product and we don't want a perception that hatchery fish are inferior.

Steve McGee stated that he was unable to get federal regulators to attend today's meeting. We are discussing this issue because it will need a solution.

The group discussed dumping and the legality of dumping carcasses, and the non-human consumption of the carcasses, such as their use for fish food. This topic has long-term ramification for fishermen and everyone and it will be necessary to watch the regulation

development carefully. Steve McGee pointed out that this topic is not going to be going away. He stated that he had the state and federal addresses for the regulating agencies and agreed to provide a list to the PNPs. It was suggested that Senator Stevens be kept informed.

Agenda Item 1.e. NPDES discharge permits -- Keith Pratt.

Steve McGee introduced Deena Henkins, Chief of Alaska Department of Environmental Conservation, Wastewater and Water Treatment Section. He pointed out that she was here to provide what information she could, but she was not in charge of the federal permit program. He was unable to contact the federal representatives. He then introduced Keith Pratt, FRED Division, SE Hatchery Manager.

Keith Pratt talked about his background and the background of NPDES discharge permits. They began in the lower 48 where they were needed. He discussed the Idaho state standards that are used for the model. FRED Division monitored the water quality at Big Lake Hatchery to demonstrate the water quality in Alaska. There are three hatcheries (Elmendorf, Fort Richardson, and Big Lake) that might exceed Idaho standards briefly for parts of the year. The regulations are clear, we are required to have waste water discharge permits and it is probably reasonable to do so. However, carcasses are another matter. He pointed out the Kitoi Bay carcass problem where "a desert was created."

Pete Esquiro said that NSRAA is going to grind their carcasses. They have acquired and are installing equipment at Hidden Falls Hatchery. He discussed some of the costs associated with grinding and NSRAA decision to start grinding.

Don Amend discussed SSRAA's decision not to sell carcasses and the problem of carcass disposal. They paid a contractor \$25,000 last year to remove carcasses, and the contractor lost money. The cost of contracting is going up. They delivered the fish in totes to the contractor. SSRAA estimated it would cost \$52,000 to set up grinding equipment, plus other associated expenses. They have investigated selling the carcasses for pet food and fish food. Transportation is expensive. SSRAA investigated doing the fish food processing themselves. It does pay if you make your own fish food, but that is a science in itself. In response to comments about hydrolyzed products, he stated that the technology is not there yet. Amend would like an agreement about where the hatcheries are headed in carcass disposal and a unified approach developed.

Ken Florey asked about the liability of a large die-off from too many carcasses in a bay, such as happened at Kitoi. Who is responsible? In the discussion that followed, no one had a legal answer for that question.

Ladd Macaulay said he understood that hatchery operators were going to have to obtain a discharge permit for every net pen site.

Steve McGee summarized the discussion to this point, that we have three issues: (1) water quality, (2) carcass disposal, and (3) net pens.

Deena Henkins stated that EPA may not be able to issue a permit to dispose of whole carcasses. The current requirements are that you must grind. EPA could write the hatcheries into a general permit, they have one for seafood processing now. EPA can fine you if you don't have a permit. You can be sued by others if you don't have a permit. Ladd Macaulay requested a written dialogue about how EPA arrived at agreements. Deena explained that EPA decisions are based on a national technology policy. This state will have to follow those national guidelines.

Don Amend said that he was told that EPA will not monitor, but if they receive a complaint you could be subject to \$2,500 fine per day that you out-of-compliance.

There was a consensus to unify a strategy. FRED Division would begin to coordinate hatchery effluent and carcass disposal permitting with the EPA, and Keith Pratt, ADF&G Regional Hatchery Manager, will be the coordinator.

Agenda Item 1.g. Thermal otolith marking programs -- Kris Munk/Ladd Macaulay/ Paul McCollum/Karen Crandall.

Paul McCollum began the discussion by talking about the costs of operation and that hatcheries are expected to pay more of management expenses. Coded wire tagging (cwt) is expensive. Thermal otolith marking makes mass marking possible, and that possibility is exciting. But he doesn't want to lose CWT data.

Kris Munk discussed the technology, pointing out that there is 100 percent marking of fish with this procedure. With 100 percent marking less sampling will be required. For example 200 samples per day, using two people to sample may be all that is needed. Although, actual numbers that need to be sampled have not yet been determined. The Commercial Fisheries Division has federal funding to develop a laboratory for US/Canada transboundary river enhancement work. Samplers will have to go to a specific sampling area and handle sampling in much the same manner as for electrophoresis sampling program.

Don Amend asked about tetracycline marking as a new way to go. He wanted to know if it was cheaper or better. Brian Allee told him that it was introduced as a complimentary method and the department is still looking for input.

Bruce Suzumoto wanted to know if anyone has done any cost studies.

Ken Leon said that analysis for U.S.-Canada indicates that otolith marking is a cheaper method. That only a few hundred samples are required. U.S.-Canada recommends forming an otolith mark team.

Karen Crandall said that the cost depends upon your site. Heating water will add an expense. There may be more cost for personnel to be attentive to the process, although less expensive than CWT. There are report expenses. And the recovery laboratory will be expensive. The sampling needs biometrics input.

Ladd Macauley stated they had spent about \$6,000. He considers it as just another tool. It's research. DIPAC is also putting in CWTs. But he likes the idea of 100 percent marking considering the high seas squid fleet. DIPAC is planning to do submarks now that they know they can get seven distinct marks. The otolith banding pattern will not be duplicated in natural stocks.

Paul McCollum stated they had marked one small group originally. They found the marks were accurate. They will probably have to start recording water temperature and keeping better records.

Ken Florey discussed different management scenarios that these marked fish could assist. It too early to determine whether inseason discussions could be made. He stated that the marking costs could be picked up by the hatcheries cheaply. But analysis is expensive and there can't be more than one laboratory. Also there's the cost of seasonal technicians and work force. Perhaps this is another case where the user group pays.

Karen Crandall discussed a stock separation workshop and traditional tools for marking fish. She said the new tool is otolith marking. There is a need to coordinate this effort to the focus funds, talents, information, etc. She gave suggestions about how the data might be used inseason for management and reports that could be made available. Karen said she doesn't know where the funds will come from. Kris' laboratory is for Southeastern only. She believes the money should come to one laboratory only. Samples for one place can be processed in one week or less than two days.

Scott McAllister made a comment about being asked to fund everyone's science project. Brian Allee said this meeting is to confront reality. When there is no one to recover and sample, the user pays. As Ken Leon mentioned earlier, the oil spill has the CWT money now. Ken Florey pointed out that the average person in this state believes that commercial fishermen are making big money. The average person doesn't want to pay to help commercial fishermen make this big money from the resource.

BREAK AT 12:30 P.M. FOR LUNCH. RECONVENE AT 1:35 P.M.

Agenda Item 1.f. Small-scale enhancement projects--Ron Josephson.

Ron Josephson showed slides of different small-scale projects and provided a hand-out. He mentioned that one of the advantages of the small-scale projects is there is not a risk. Some work well and others don't. FRED Division has no numbers on the one's that work. Each individual project has to be evaluated separately. There is now a full-time person in FRED Division doing these projects.

Agenda Item 2.a. Management of hatchery fish in common-property fisheries. Panel: John Burke, Jim Bacon, Geron Bruce, Fred Gaffney, Scott Marshall, Bruce Suzumoto, Bart Watson, and Steve White.

Scott Marshall began by explaining that the fragmented way the department is or is not managing the fisheries causes problems with the Board of Fisheries. It seems like you should be able to start at the hatcheries and work outward, but it's not that simple. You may or may not have fishing adjacent to the hatchery release site. Then once the fishery has moved out of the terminal area, who pays for evaluation and who benefits. He has found no policy guidelines. It requires data to get the information to the Board of Fisheries to make a decision. Commercial Fisheries Division has not managed outside the hatchery harvest area for cost recovery unless that is provided for by Board of Fisheries direction. He wonders what the goals are for the hatchery programs?

Steve White has analyzed the current law. There are two kinds of fish: broodstock and cost recovery. He believes that there is not a lot of legislative direction so he has simply done a factual analysis. Under the constitution and statutes, the department must provide broodstock. There is no requirement for cost recovery. Whether the department can be required to manage fisheries for cost recovery is questionable. He compared broodstock to wildstock escapements for reproductive purposes.

Ken Florey asked about Eklutna and who is responsible for determining if broodstock is caught in a common property fishery before reaching the hatchery. Steve White said you can only be sued on the information you have.

Jim Bacon said goals are set for natural systems. He wondered what is "sufficient broodstock"? He pointed out that Article 8 was written before hatchery fish. Scott Marshall said that in reviewing statutes, you should review the intent. The statutes say segregate from wildstocks and provide for common property fisheries.

Brian Allee pointed out that when hatchery statutes were developed, fish returns were low. Hatchery fish needed to contribute to the common property fisheries. Why should hatcheries exist if they

are not contributing? Bruce Suzumoto wanted to know how a PNP could be expected to survive without cost recovery fish, especially when they are not getting enhancement tax monies.

Dave Massey asked for a definition of "sustained yield." Then said that you can't "sustain" a hatchery yield on broodstock alone, you need a cost recovery too. Massey said that DCED is not directly involved, but thought this issue would have been worked out by now. Solving the sustained yield question for hatcheries will eliminate most long-term financial problems. He believes that in order to gain fishermen's confidence, there is a need for acceptable controls on permit holders budgets. He pointed out that only RAAs who chose not to borrow will be okay under the current management system. Steve White responded that the Legislature did not tie loans to the statutes and regulations for permits. Perhaps they should have.

Jeff Pfundt said that he views the PNPs as another user group. There is no limit on what they need for cost recovery. Dave Massey said that is the attitude of some fishermen, they will catch the broodstock and let the hatchery borrow more money. The Division of Investment guideline is a minimum 50 percent contribution. Paul McCollum said PNPs must be given broodstock and cost recovery. The debt service goes up. He suggested a financial review by the RPT every five years.

Bart Watson said that his corporation did not know where their fish were being caught. They need to mark their fish. They want to contribute to the common property fisheries, not compete with fishermen. They don't want fisheries closed when the natural run levels will still support a fishery. On the other hand, they don't want harvest increased so the hatchery doesn't get a return. He said they don't mind marking if they can afford it, pointing out that they are not-for-profit.

Geron Bruce stated that fishermen are at cross roads with the hatchery program, and the user pays. All the state stocks are not healthy. Fishermen need these hatchery programs and need to sustain them. He favors working out management problems.

John Burke pointed out that purpose of hatcheries was to raise the valleys in natural fish production. At the last Board of Fisheries meeting the Board voted 6 to 1 against cost recovery. Ken Florey added that he believes Southeast was caught in the aftermath of Prince William Sound. No one wants to be the guy to say "that is a reasonable expense".

Scott McAllister said there is an assumption that hatcheries are going to work. They don't always work. He asked Dave Massey about when the Division of Investments will foreclose. Massey said that like other issues with nonprofit corporations, it is complex. The Department of Commerce stays out of the fisheries policies and

regulations. McAllister said that it is getting worse in Southeast. Massey said that when something goes bad, you review the loan again. He maintains that basically it is good investment for the state. When the percentage becomes 50 percent, the picture changes. Often whole communities are involved. The state closed Sandy Bay. NSRRA closed themselves. Now there is a need for more operational cost. He considers it a state experiment that is going to fail unless the issues about cost recovery are addressed.

Bob Burkett said he sat down with three area management biologists to try to figure out how to not forego the harvesting of wildstock opportunities. It keeps coming back to adequate marking. He believes it is solvable if you put the money on the problem.

Paul McCollum believes that the state has liabilities because they issue the permit. That PNP hatcheries need cost recovery. Dave Massey said that in Southeast, the hatcheries will get their first big return, then the department will open an area that hasn't been open for twenty years. Scott Marshall said that is not what happened. He said the decade of the 80's has been one of high returns.

Bruce Suzumoto asked about remote release sites for broodstocks. Ladd Macaulay responded that Southeast is still two to five years behind Prince William Sound. He said without cost recovery it is not going to happen.

SHORT BREAK AT 3:35 P.M.

Agenda Item 2.c. Allocation of hatchery fish among user groups: the Prince William Sound management/allocation/production model. Panel Ken Florey, Howard Ferren, and Bruce Suzumoto.

Ken Florey began the introduction. He believes that Southeast is more complex than Prince William Sound. In general, wildstocks are still healthy. Florey introduced Howard Ferren.

Howard Ferren said he had been the PWSAC corporate planner since 1989. Although he lived in Alaska 18 years he had no idea of the complexity of fisheries issues. He showed slides of the PWS allocation planning process.

The Board of Fisheries directed PWSAC to develop an allocation plan for the enhancement program. They had two years to accomplish this. Howard discussed the procedures used to establish goals, priorities, the procedural steps, the issues, the findings, and the decisions. The Allocation Policy had three parts: Intent, Objective, Policy. It required researching fisheries history from statehood. They decided to focus on returning salmon, not "enhanced" fish.

Don Amend asked about the level of dissention. Ferren said they

went to the Board of Fisheries prepared. That there was more dissention over spotter planes than this policy. Ferren explained that the PWSAC Board of Directors Chairman appointed a task force. The task force members were carefully selected, then Bill Wood was added as a moderator, and then Ferren. They had many long meetings.

Florey said that former Board of Fisheries Chairman, Gary Slaven, had made it very clear. You do it or else. Florey added that in southeastern Alaska the two RAAs makes the issues more complex and it will require good leadership. In PWS Solomon Gulch Hatchery had joined the efforts. Public participation is most important.

Amend said that the RAAs decided that a policy was necessary. They have already selected representatives. He wanted to know how important was Bill Wood. Very important according to Bruce Suzumoto, who added that you also need a Howard. Suzumoto said that it is the people who need to agree to participate. He claimed that they were "dead in the water" as an organization. Bill was very important in setting up things. It helps to have an impartial person for oversight. Florey agreed. He said that person told you what people were hearing, not what you thought you said. He added that trust is important, and you need data.

Agenda Item 2.d. The economics of hatchery operation: economic development vs common-property contribution. Panel: Don Amend, Geron Bruce, Jeff Hartman, Dave Massey, and Bruce Suzumoto.

Geron Bruce began with a historical sketch. In the early 70's the Legislature set-up PNPs to provide an alternative to the private-for-profit ocean ranching programs down South and to provide fish to Alaska fisheries. PNPs are now contributing to common property fisheries. The public expects an efficiently run program.

Jeff Hartman compared Alaska's program to Canada's where we chose not to select social goals. It was a Canadian goal to augment economics. Their program must create employment, native employment. We don't need to demonstrate need with a cost/benefit ratio. We do have multiple goals, although they may not be formally stated.

Bruce Suzumoto talked about the need for the development of new markets. PWSAC has received comments about too many pinks driving down prices. There are no new markets and production is increasing world-wide. Most are canned or frozen fish. He said we must look at world demands and/or markets. He made a trip to Norway, where they are totally integrated. He said we act like large fishermen. This year the processors don't want the fish. They are looking for processors to invite into the Sound.

Bob Keller said our fish never get past Seattle. We need to bypass that bottleneck and get our fish to Kansas and Japan.

Suzumoto pointed out that we are over-dependent on a few markets. That we have always sold to the highest bidder. He said we are not doing our homework on designer products.

Don Amend said we are here to help fishermen and benefit them. If the program cannot survive the 70-75 percent exploitation rate, you are out. He believes the program must focus on commercial fish.

Bruce Bachen said we have two issues: new products and new markets. He suggested that we need more help from ASMI. Suzumoto responded that ASMI promotes generically and educationally, not markets. He said that it takes money to promote. Bart Watson asked if PNPs could benefit from coordinated efforts. Suzumoto suggested that one approach is to increase the quality.

To end the meeting, Brian Allee gave a brief summation. FRED Division will continue with CWT and other evaluation programs. FRED Division will coordinate hatchery effluent and carcass disposal permitting with the Environmental Protection Agency.

In regards to cost recovery, two Attorney General opinions have been issued which basically say the same thing, that it can be done. However, certain procedures need to be followed if an operator is to be successful. His observation is the various regions of the state are so different, and that there is no management consistency between them.

At this meeting we did not get to the bottom line of who pays. That will have to be resolved at the commissioner's level.

Some of the issues discussed today are not at the resolution point. Brian wanted to know if the participants want to hold another forum. Several participants suggest they would like to continue having the meetings.

MEETING ADJOURNED AT 6:00 P.M.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF BOARDS

WALTER J. HICKEL, GOVERNOR

P.O. BOX 3-2000
JUNEAU, ALASKA 99802-2000
PHONE: (907) 465-4110
FAX: 463-5331

September 11, 1991

Molly McCammon,
Senator Hoffman's Office
Capitol, Room 510
P.O. Box V
Juneau, AK 99811

Dear Ms. McCammon:

The chairman of the Alaska Board of Fisheries, Mike Martin has requested your attendance at the board work session in Anchorage at the Best Western Barratt Inn on September 20 from 10:00 a.m. - 2:00 p.m. The board is interested in an update and discussion on the Legislature's Hatchery Research Project started this last spring.

Please advise me at your earliest convenience. If you have any additional question, feel free to call.

Sincerely,



Laird A. Jones
Director

cc: Mike Martin
Nancy Gaudet

MEMORANDUM

STATE OF ALASKA DEPARTMENT OF FISH AND GAME

TO: Members of the Alaska
Board of Fisheries

DATE: September 13, 1991

FILE NO:

THRU:

TELEPHONE NO: 465-4160

SUBJECT: Information for the September
Work Session

FROM: Jeffery P. Koenings 
Director
Division of Fisheries Rehabilitation,
Enhancement and Development
Department of Fish and Game

Please find enclosed a summary of the statutory and regulatory requirements in the application process for a Private Nonprofit (PNP) Hatchery Permit. The complete statutes and regulations described in the summary are included in the enclosed booklet entitled, **Alaska Statutes and Regulations for Private Nonprofit Salmon Hatcheries**. Among other things, the Alaska Board of Fisheries is responsible for the regulations in 5 AAC 33, 5 AAC 40, and 5 AAC 41 that address harvest management, harvesting, and transportation and release of fish at PNP hatcheries.

I am looking forward to discussing these issues with you at the Board of Fisheries work session on the Legislative Hatchery Research Project scheduled for 10:00 a.m. on September 20 in Anchorage. If you have any questions before the meeting, please contact me at your convenience.

Enclosures

cc: Laird Jones
Molly McCammon
Steve White

Existing statutory and regulatory requirements associated with a private nonprofit (PNP) hatchery permit in the State of Alaska.

Alaska Statutes (AS) 16.10.400-16.10.475 address this permit process. The PNP hatchery permitting process is identified in detail in regulations 5 AAC 40.100-40.990. The following description identifies the statutes and regulations and briefly explains their content in a paraphrased format.

AS 16.10.400 instructs that the commissioner may issue a permit, subject to restrictions imposed by statute or regulation, to a nonprofit corporation organized under AS 10.20 after the permit application has been reviewed by the regional planning team (RPT) for the construction and operation of a salmon hatchery. The RPT usually consists of six voting members (three from various user groups and three departmental staff representing the fisheries divisions) that review proposals and make recommendations to the commissioner. A hatchery permit is nontransferable.

AS 16.10.410 requires a public hearing at least 30 days before the issuance of a permit. The hearing shall be held in a central location in the vicinity of the proposed hatchery facility.

AS 16.10.420 provides for conditions on a PNP permit. This includes a provision that donor stock eggs must be from the department or a source approved by the department. This statute is supported by regulations 5 AAC 41.001-41.100 that identify a fish transport permit process. 5 AAC 41.005 states that no person may transport, possess, export from the state, or release into the waters of the state, any live fish unless the person holds a fish transport permit (FTP) issued by the commissioner and the person is in compliance with all conditions of the permit and the provisions of this chapter. 5 AAC 41.030 states that the commissioner will issue an FTP if it is the department's determination that the proposed transport, possession or release of fish will not adversely affect the continued health and perpetuation of native, wild, or hatchery stocks of fish. All FTP applications are reviewed and signed off on (recommending either approval or denial) by the ADF&G Principal Pathologist and the ADF&G Principal Geneticist, as well regional supervisors for the fisheries divisions, the Chief of Technology and Development, the FRED division director, and the commissioner. The potential pathological and genetic impacts are the primary considerations in this review process.

Additional conditions provided for in AS 16.10.420 include: no

placement of salmon eggs or resulting fry may be released into the waters of the state except as designated in the permit; restrictions on sale of eggs or resulting fry; no release of salmon before departmental approval; destruction of diseased salmon; department control over where salmon are harvested by hatchery operators; and hatcheries must be located in an area where reasonable segregation from natural stocks occur but, when feasible, in an area where returning hatchery fish pass through traditional salmon fisheries.

AS 16.10.430 allows the commissioner to alter, suspend, or revoke a PNP permit if the operator fails to comply with the terms and conditions of the permit within a reasonable period after notification of noncompliance by the department. The commissioner may also alter the permit or initiate a termination of the operation, if it is found that the hatchery is not in the best interest of the public.

As 16.10.440 reinforces that fish released by hatchery operators are available to the people for common use in the same way as natural stocks until they return to the location for hatchery harvest that has been established by the department. The Board of Fisheries may, after a permit has been issued, amend by regulation the terms of the permit relating to the source and number of eggs, the harvest by hatchery operators, and the locations designated by the department for harvest by the operator.

AS 16.10.443 states that the department shall provide assistance before and after permit issuance, within the limits of time and resources.

AS 16.10.445 reinforces that the department shall approve the source and number of salmon eggs for hatchery operators. Salmon eggs shall first be taken from stocks native to the area in which the hatchery is located.

AS 16.10.450 addresses sale of salmon and salmon eggs by operators. After the operator uses these funds for reasonable operating costs, any remaining funds shall be expended on other fisheries activities of the qualified regional association. Also, fish returning to hatcheries and sold for human consumption shall be of comparable quality to fish harvested by commercial fisheries in the area, and shall be sold at prices commensurate with the current market.

AS 16.10.460 provides for a department inspection of the hatchery facility at any time the facility is operating.

AS 16.10.470 requires that an annual report be filed with the department by December 15 of each year on a form provided by the department.

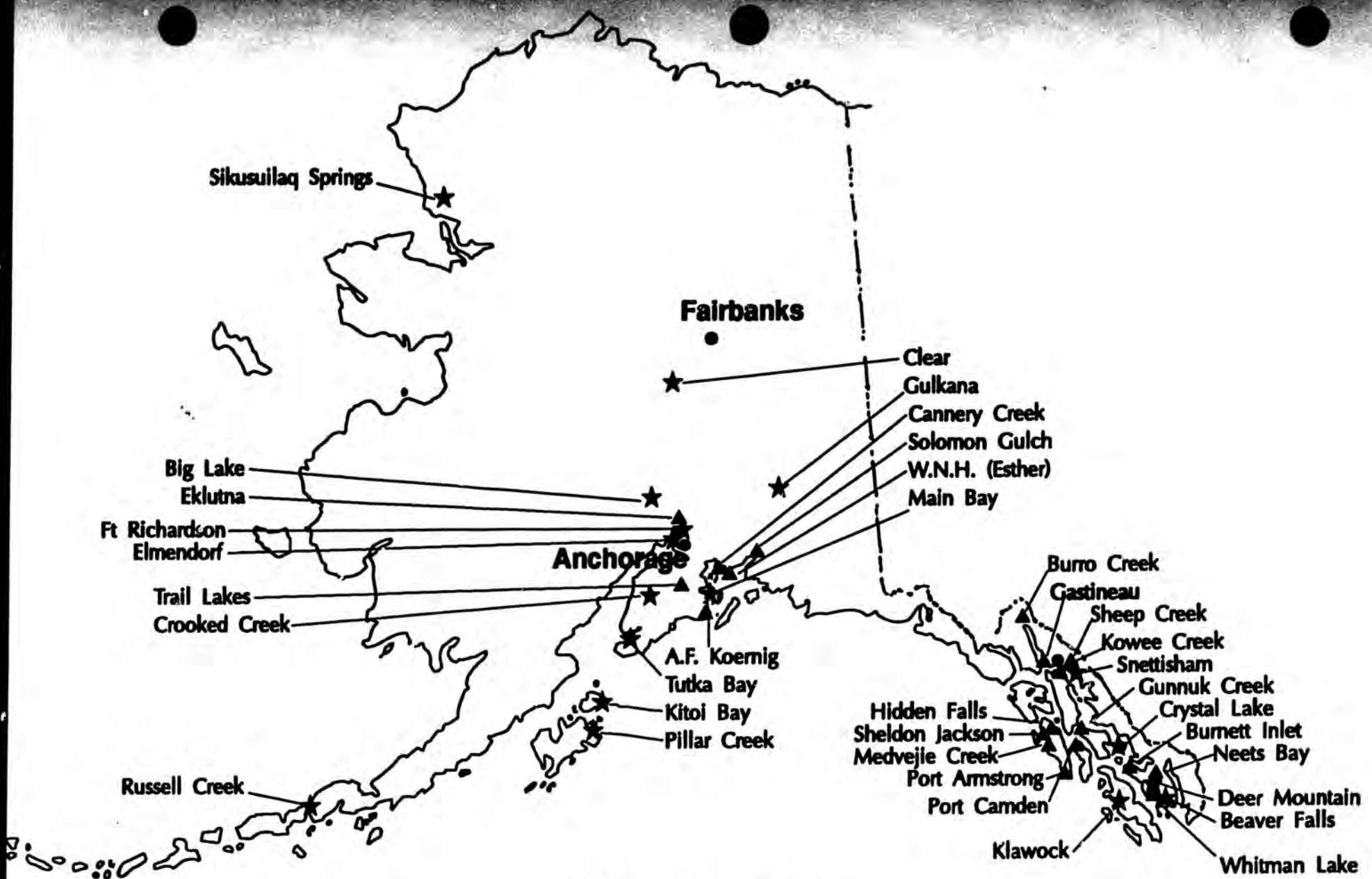
Regulations 5 AAC 40.100-40.990 detail the permit application

procedures for a PNP hatchery permit, the regional comprehensive salmon planning process, and general provisions on the permitting and operation of PNP hatcheries.

5 AAC 40.100-230 detail permit application procedures in a chronological order, and include: pre-application assistance, a management feasibility analysis, the permit application and fees, determination of acceptance by the department for formal review, regional planning team review, a provision for requesting additional information, completeness determination by the department, the public hearing process, review and determination by the commissioner, (this includes six major criteria), and a provision for reconsideration. The departmental review of all PNP hatchery permit applications includes review and comment by all fisheries divisions and the Habitat Division in the affected region, the Principal Geneticist, and the Principal Pathologist.

5 AAC 40.800-40.990 include the following information: nontransferability of permits, preference rights to potential hatchery locations for the regional aquaculture associations, basic management plans for each hatchery, hatchery inspection requirements, annual management plan requirements, notice and review of requested permit alterations, provisions for performance review by the department and the regional planning team, requirements for reporting of mortalities, details on the concept of surplus salmon eggs, notice on report coordination with the Department of Commerce and Economic Development, and definitions.

The PNP permit system is very rigorous, and in a best-case scenario, the review and approval process takes a minimum of four to five months.



Alaskan Fish Hatcheries

- ★ FRED FY92 Budget
- ▲ Private Nonprofit hatcheries

MEMORANDUM

TO: Legislative Hatchery Research Group members
FROM: Molly McCammon
DATE: September 12, 1991
RE: Update for today's meeting

I. History & Development of Hatcheries

Report on legislative history and intent of hatchery program completed by Legislative Research. Everyone should have copies.

Report on production policies and trends world-wide has been delayed, and won't be completed until late September. —

Any comments on Leg Research report?

II. Economics and Marketing

Review of existing economic studies is completed, and proposal for further research has been developed. Funding is being sought from Leg Council.

met w/ economists go that public policy questions —

Governor's Salmon Strategy Task Force is at work. We are involved and providing information to this group. Next meeting scheduled for October 7. Molly will give further details.

Comments on cost-benefit study proposal?

Review Rep. Kubina draft marketing legislation. —

*money on production
ways to shift to marketing
analysis of ASMI
product development - as long term goal.
short-term*

III. Fisheries Management

Dale is on his honeymoon for 3 weeks, and Frank Homan took a new job with the administration.

Legal Services is doing a review of relevant constitutional references, statutes and regulations. Due Sept. 20.

Fish Board and ASMI are both meeting on this issue in next few weeks.

Leg Research will soon have report on biological impacts of hatchery production on wild stocks. Ole Mathisen at University is organizing conference in Cordova Nov. 10-15 on same topic.

Joe Ambrose has conducted survey of aquaculture associations. Will be completed this week. - Monday.

Issues + conflicts - John - debate the issues.

IV. Roles & Responsibilities in Statewide Enhancement Program

We're still waiting for FRED Division strategic plan to review.

Section A+B.
Barnaby will have report on state planning process by late Sept.

• **Kate Tesar** will have completed report on hatchery funding by late Sept.

• Molly will have report on environmental regulations by late Sept.

V. Recommendations & options - forum, hearings, etc.

III. Fisheries Management *DALE*

*MOLLY
DALE*

Review current management policies as expressed in Alaska Constitution and statutes, ADF&G and Board of Fisheries policies and regulations, regional planning process.

B. Identify issues and conflicts *Mike Martin Deborah Lyne*

- ① Hatchery stock and wild stock harvest
- ② PNP broodstock
- ③ Cost recovery fisheries
- ④ Allocation conflicts (between gear groups and user groups)
- ⑤ Goals of state hatcheries, PNP's and regional associations
- ⑥ Use of hatcheries as mitigation tools
- ⑦ Conflicts and coordination with federal policies
- ⑧ Challenges of in-season management: interaction of economics, wild stock protection, terminal fisheries, and fish quality concerns
- ⑨ Hatcheries that are exempt from state process *Mutlakatta*

*St. George -
want to start
a hatchery.*

C. Biological information

1. Review carrying capacity for salmon by species and area
2. Review state genetics policy
3. Review diseases screening and policy
4. Monitor Genetics Policy Review Team headed by FRED geneticist Jim Seeb

leg research.

D. Review legal issues regarding state & private hatcheries

1. Review legal opinions of AG, Legislative Legal Services, and private attorneys
2. Review Board of Fish letter for legal issues.

Johanna

E. Identify and review current tagging techniques

1. Use by PNPs or state for tracking and counting
2. Review of technological and economic feasibility
3. Evaluation of hatchery contribution and who pays for it

DALE

F. Review salmon hatchery production and harvest

1. Current versus planned
2. Impact on management

*leg. research
Sept. 1*

G. Review role of regional aquaculture associations

1. Financing
2. Determining production
3. Interaction with state and PNPs
4. Deciding on allocations

*Don Amend - SSR AA
letter to RAA*

*response from all of them.
seeing patterns on how they
operate.*

8-4.

JOE



Official Business

Alaska State Legislature

P.O. Box V
State Capitol
Juneau, Alaska 99811

MEMORANDUM

TO: Senator Dick Eliason

FROM: Molly McCammon, Coordinator *Molly*
Legislative Hatchery Research Project

DATE: August 30, 1991

RE: Status report on research project

Work on the Legislative Hatchery Research Project has been proceeding all summer. The following is the status of each of the four work groups:

I. History & Development of Hatcheries. Legislative Research has completed a legislative history of the hatchery program. I'll be sending you a copy separately. A second report summarizing salmon production trends and policies worldwide, by country, and in Alaska should be done next week.

II. Economics & Marketing. This group decided to leave the marketing issues to the Governor's Salmon Strategy Task Force. Instead we have been focusing on economic issues to determine what impact hatchery production has on prices and revenues and what effect increased hatchery production will have. We are in the process of developing a proposal for some additional research, and once Ginny Fay returns from vacation, we need to discuss this with you in further detail.

III. Fisheries Management. Reports are due next week on biological and genetics issues (Leg Research) and on the role of regional aquaculture associations (Joe Ambrose in Rep. Taylor's office). We have been waiting until the season is over before focusing on the management issues and conflicts section. The Fish Board has scheduled a two day workshop in mid-September and has our group on their agenda.

IV. Roles and Responsibilities in Statewide

Enhancement Program. Barnaby Dow and I have been interviewing a lot of people regarding the planning process and will have an initial report done in about two weeks. Kate Tesar will have a draft report on hatchery funding completed before she leaves for her new career as a lobbyist.

Conclusion: We are slightly behind schedule, with our original goal of a draft report in early September now postponed to early October. The two big issues that need further discussion and your input are the economic studies and a possible forum or workshop in order to get more public involvement. I've asked Sheila if we could set up a telephone call mid to late next week if your time and schedule permit.

ECONOMICS

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF FISHERIES REHABILITATION,
ENHANCEMENT & DEVELOPMENT (FRED)

WALTER J. HICKEL, GOVERNOR

P.O. BOX 3-2000
JUNEAU, ALASKA 99802-2000
PHONE: (907) 465-4160
FAX: (907) 465-4168

September 10, 1991

The Honorable Lyman Hoffman
Alaska State Legislature
P.O. Box V
Juneau, AK 99811

ATTN: Molly McCammon

Dear Ms. McCammon:

Thank you for the opportunity to comment on the *Proposal to Conduct a Benefit-Cost Analysis of the Fishery Enhancement Program: Emphasis on the Price Responsiveness of Alaska Salmon to Enhancement Production*. To provide a thorough review of the proposal, I have summarized comments made by the Divisions of Commercial Fisheries, Sport Fish, and Fisheries Rehabilitation, Enhancement and Development (FRED) Division.

The cost-benefit analysis (CBA) described in the proposal is a mainstream economic method frequently applied to fisheries. The Alaska Department of Fish and Game (ADF&G) is supportive of the use and application of these types of tools. This economic study appears to adhere to the same standards of economic modeling that the National Marine Fisheries Service uses under the Magnuson Act. It also appears to be similar to the CBA applied by the Canadian Department of Fisheries and Oceans for their fisheries enhancement program. A model of this type could certainly be used by ADF&G to estimate the benefits and costs of specific enhancement projects, as well as allocation and management issues.

We also are aware that there are some limits to the types of economic questions that can be addressed with a CBA. While it is a logical first step in evaluating a fishery policy or investment, it does not usually provide much detail on how benefits and costs are distributed between users, nor does it provide the type of regional and community employment information also used by policymakers. This type of distributional and impact information may hold a place in evaluating fisheries issues relevant to the State of Alaska. The Alaska Board of Fisheries, regional planning teams, and regional aquaculture associations are forced into debates over the distribution and magnitude of the benefits to fisheries. By focusing, in detail, on the magnitude of costs and magnitude of benefits to various users, it would be possible to also provide information to other debates focusing on enhancement within the state.

It is our impression that the proposal is intended as a briefing document for the Legislature that summarizes contracting arrangements, costs, and possible principal investigators to carry out the work. As such, the document provides a general idea of what you wish to accomplish and how the formal contracting portion of the work would be carried out. As the proposal is a brief description of the work and products, it, understandably, does not answer all questions of interest to the fisheries divisions, particularly those relevant to determining the additional data and workload that might be placed on ADF&G staff while carrying out your requests. Some of our comments revolve around the question of further work products and reviews you anticipate coming to ADF&G.

The following are ADF&G's specific comments:

1. As far as we are aware, there are no other reasonable alternatives for carrying out this study that would ensure completing the work on time. For the economic portions of the studies, e.g., the cost model, demand model, and software-combining model, there are not enough economists in the department to do the work, and much of the econometric work would be farmed out anyway. ADF&G staff might be able to carry out the population/exploitation-modeling work; however, ADF&G may not have adequate experience in applying salmon population models to bioeconomic analysis, which is different from the intent and modeling procedures applied to preseason forecasts.
2. We are not able to determine from the proposal exactly what information, work products, and staff time would be requested from ADF&G. This is a proposal seeking funding, but we understand there will be several additional steps, including (1) a request for proposals from each potential principal investigator, (2) submission and review of proposals, (3) award of contract, (4) specific information requests from ADF&G, (5) completion of individual study products, (6) combining models, and (7) reporting results. It would be helpful to ADF&G staff to know where staff would participate in this process.
3. If the work of the Interim Study Group is to be a public process, we wonder whether the affected parties should be allowed to comment on the proposed modeling effort. It seems that a review during the early stages of the process would most likely produce a user-accepted product when released.
4. Some portions of the narrative refer to production from salmon enhancement and others refer to production from hatcheries. It is not clear which would be focused on in the study. It would be difficult to just focus on hatcheries because so many projects are intertwined with fishpasses and lake fertilization. We suggest a more comprehensive frame of reference than just salmon production arising from artificial propagation.
5. The description of how the production estimates from the survey will be made and how the population/exploitation model will be linked to these estimates is a bit too brief for us to provide detailed comments. Also, it is not clear how ADF&G would be involved in the hatchery production survey design, administration of the survey, review of survey results, model formation, and model review.

6. The proposal did not address the issue of uncertainty in any of the model components. A single forecast of best-guess economic outcomes may not be a very useful tool for evaluating the hatchery program. The Legislature could consider including an analysis of the sensitivity of the assumptions and alternate outcomes as a major feature of the study.
7. We did not see any discussion of how the economics of the management of these fisheries are going to be considered? For example, tradeoffs may exist between enforcement, management, and enhancement.
8. The statement, "Salmon produced by hatcheries are exposed to the same biological conditions and fisheries as wild stocks," did not seem to be totally accurate. Many enhanced as well as wild stocks of fish develop in discrete, separate environments and may have little, if any, interaction at various times during their life cycles. The assumption of identical environments under all conditions may negatively bias the CBA.

We continue to be very interested in providing support to the Legislature in the Hatchery Research Project. Some of the models created in this study could help the FRED Division in understanding the economic consequences of specific rehabilitation and enhancement projects once the software is made available to us. Your clarification and guidance on some of these comments will help us to more efficiently assist in the completion of this important study.

Sincerely,



J. P. Koenings *for*
Director

cc: Carl L. Rosier
Bob Burkett
McKie Campbell
Bob Clasby
Jeff Hartman
Rocky Holmes
Denby Lloyd
Norval Netsch

ALASKA STATE LEGISLATURE SENATE

SENATOR RICHARD I. ELIASON

PRESIDENT OF THE SENATE
LABOR & COMMERCE COMMITTEE
RESOURCES COMMITTEE
RULES COMMITTEE
CHAIRMAN, SPECIAL COMMITTEE ON
DOMESTIC & INTERNATIONAL
COMMERCIAL FISHERIES



P.O. BOX 143
SITKA, ALASKA 99835

P.O. BOX V
JUNEAU, ALASKA 99811
(907) 485-4916

FAX (907) 485-4928

September 11, 1991

Representative Cliff Davidson, Acting Chair
Legislative Council
112 Mill Bay Road
Kodiak, Alaska 99615

Dear Representative Davidson:

As you are probably aware, legislative staff, under the auspices of the Senate Special Committee on International and Domestic Fisheries, have been conducting an intensive review of the state's fish enhancement program. This review was initiated at the end of last session as a result of an increasing number of issues raised regarding the management of hatchery production, and the best options for spending declining state dollars. Certainly this past fishing season has made such a review even more timely and pertinent.

A major element of the research group's work plan (Attachment A) is to determine the economic impacts of the salmon enhancement program. Staff have thoroughly reviewed existing economic studies and have determined that further research is needed in order to help us determine the net benefits and costs of the salmon enhancement program. Five principal research components (Attachment B) have been identified for a total cost of \$58,000:

1) Hatchery Cost and Production Model to be conducted in-house, \$0.

2) Biological Population Model to be conducted by Dr. Jeremy Collie, University of Alaska Southeast, \$10,000.

Sept. 11, 1991
page two

3) Salmon Demand Model to be conducted by Dr. John Boyce,
University of Alaska Fairbanks, \$18,000.

4) Fishing Cost Model to be conducted by Dr. Matthew Berman,
University of Alaska Anchorage, Institute For Social and Economic
Research, \$20,000.

5) Model Synthesis to be conducted by Dr. Terry Smith,
University of Alaska Anchorage, Institute for Social and Economic
Research, \$10,000.

We are working with the University administration to reduce the overhead component of these contracts and thereby reduce the total cost of this project. However, we are anxious to get started and would like your support to go ahead with funding. If tentative approval of funding can be obtained from Legislative Council members by about September 20, then work could begin by October 1, the first four components would be completed by mid-December, and we would have an overall report by February 1, 1992. Formal action to approve the expenditure of Senate leadership funds on these contracts would be slated for the Legislative Council's next meeting.

I would like your support as a member of the Legislative Council in approving the transfer of the funds needed for this project to the Special Fisheries Committee in order to contract for this work. If you have further questions on the actual project, please contact either the overall project coordinator Molly McCammon at 465-4453, or the Economics Working Group leader Ginny Fay at 465-3711.

I would appreciate hearing from you as soon as possible.

Sincerely,



Senator Dick Eliason, Chairman
Senate Special Committee on Domestic
and International Fisheries

**Proposal to Conduct a Benefit-Cost Analysis of the Fishery
Enhancement Program:
Emphasis on the Price Responsiveness of Alaska
Salmon to Enhancement Production**

Introduction

In May 1991, the Senate Special Committee on International and Domestic Fisheries initiated an extensive review of the Alaska salmon hatchery and enhancement program. As a result of considerable interest in the project, participation in the Hatchery Research Project includes representatives from both the Senate and the House of Representatives. The purpose of the study is to 1) review the history and legislative intent of the enhancement program, 2) analyze the current status of the program, and 3) consider future options for the program--ranging from fine tuning to possible redirection.

As part of the Hatchery Research Project, an Economics and Marketing study group was developed to provide information to the legislature on the economic impacts of salmon hatchery production. The group is to help determine

- if the current levels of Alaska salmon harvests are over-or under-supplied from a world-market perspective and
- if increased hatchery production of salmon will lower prices, fishing and processing revenues, and the total net value of Alaska's salmon fisheries.

To address these public policy questions requires a benefit-cost analysis. This type of analysis measures the level and cost of hatchery salmon production, the cost of harvesting and processing salmon, and the impact or "price responsiveness" of world salmon markets to various levels of Alaska salmon production. The costs are then subtracted from the benefits to estimate the net benefits of the salmon enhancement program and the incremental net benefits of different levels of salmon hatchery production to commercial fisheries. To analyze only the impact of different levels of salmon production on world salmon markets and prices paid to fishermen is insufficient for thorough policy analysis because it does not measure the net benefits (benefits minus costs) of the commercial salmon fisheries to fishermen or all Alaskans.

An example of some of the policy questions a benefit-cost analysis would help to address are as follows:

- Is increased Alaska salmon hatchery production the cause of this year's lower salmon prices? What is the significance of other factors, such as increased farmed-salmon production, exchange rates, economic recessions, and prices of food substitutes?
- What is the most profitable salmon species mix and level of production for the statewide enhancement program? Should the emphasis shift from pink salmon to king and coho salmon, for example, or even to other non-salmon species?

emphasis on management costs here.

- If Alaska curtailed hatchery salmon production, would Alaska salmon (both wild and hatchery) prices increase or would the resulting market share be filled by farmed salmon from other countries? Ultimately, what would be the net effect or benefits to Alaskans from these changes?
- How are the estimated benefits and/or costs of the existing hatchery production distributed to fishermen and processors in each region of the state? If changes in production occurred, how would these benefits and/or costs be distributed?
- What would be the economic benefits of changes in policy or additional legislative oversight regarding the production capacity and releases of hatchery salmon?

Rather than initiating a new benefit-cost analysis, the Senate Special Fisheries Committee requested the Hatchery Research Group to first identify the specific issues that need additional economic research. In response, the economics group developed a study plan with the initial tasks of reviewing economic and marketing studies completed to date and assessing the need for additional research.

After reviewing current research, the group determined that insufficient economic information currently exists to accurately address salmon hatchery public policy questions. The research that has been completed is either out-of-date, or additional research needs to be done to improve the reliability of existing economic models. As a result of the significant investment by private parties and the state of Alaska in both hatcheries and commercial fishing, a rigorous analysis using accepted bioeconomic techniques is warranted to fill these information gaps.

Based on our review, the economics group is proposing a set of contracts for additional research. The group worked closely with staff from the Alaska Department of Fish and Game (ADF&G), F.R.E.D. Division to develop this proposal because F.R.E.D. Division staff have considerable experience in these areas of research and have contracted for previous studies. As the committee requested, this proposal builds on previous research to close information gaps. It should be noted that the cost estimates are preliminary and more specific contract language will be developed if the legislature pursues the research.

Proposed Research

The five principal research components are:

- 1) a hatchery production and cost model,
- 2) a fish population model linked to fishing effort and harvests,
- 3) a demand model for Alaska salmon in world markets,
- 4) a fishing cost model, and
- 5) a computer software system to combine the four models.

The five research components are described below including potential researchers and the estimated cost of the research. Based on prior research conducted for the F.R.E.D. Division and expertise, the identified researchers are most likely to work on the projects. However, the economics group plans to write and circulate contract specifications to ensure that other qualified and potentially interested persons with the University of Alaska have the opportunity to work on the project.

As a result of the short time period available to complete the research, it is anticipated that the research will be funded through RSAs. Therefore, interested parties will not formally bid on the projects, but instead will provide information on proposed research methodology, pertinent research experience and qualifications, and the ability to complete the contract in the time available.

Hatchery Cost and Production Model

Principal Investigators: Economics Group and the F.R.E.D. Division staff

Anticipated Cost: \$0

This research component would consist of a survey of hatchery operators to determine the cost of hatchery production. In economics jargon, survey information would be used to develop a hatchery "production function" to estimate the incremental cost of changes in the number of salmon produced by hatcheries. The survey will be developed by the economics group and F.R.E.D. division staff and administered by the Legislative Research Agency and F.R.E.D. division. This portion of the research will also solicit information from the ADF&G, Divisions of Commercial Fisheries and F.R.E.D. regarding the costs of fisheries management of hatchery- and enhancement-program stocks.

Biological Population Model

Principal Investigator: Dr. Jeremy Collie, University of Alaska Southeast

Anticipated Cost: \$10,000

The purpose of the biological population model of hatchery fish is to estimate the number of fish returning to hatcheries and enhancement projects that are available for commercial harvesting. Salmon produced by hatcheries are exposed to similar biological and environmental conditions and fisheries as wild stocks (as opposed to farmed salmon). As a result, this research would estimate the interdependence of wild and enhanced stocks.

Salmon Demand Model

Principal Investigator: Dr. John Boyce, University of Alaska Fairbanks

Anticipated Cost: \$18,000

This contract would extend and improve research on the salmon enhancement program completed to date by Dr. Boyce for the F.R.E.D. division. To more fully

understand world salmon markets, improvements to existing demand models are needed. Relatively little research has been conducted to date on the demand for Alaska salmon, and models that do exist are insufficient to reliably answer the Legislature's policy questions. The additional work has not been contracted by the F.R.E.D. because of insufficient funding. There are two major improvements needed. The first is in the ability to forecast salmon prices and the amount of price responsiveness to changes in hatchery production and harvest levels. The second improvement is incorporating the impact of changes in world salmon-farming production levels on Alaska salmon markets and prices.

Fishing Cost Model

Principal Investigator: Dr. Matthew Berman, University of Alaska Anchorage, Institute for Social and Economic Research

Anticipated Cost: \$20,000

This portion of this study would estimate the cost to fishermen of harvesting salmon to determine the incremental cost of harvesting different levels of hatchery/enhancement project produced fish. This information can address questions such as--if hatchery production results in a 10 percent increase in harvest levels and a 2 percent decrease in the price of pink salmon, are the additional revenues minus the additional costs of harvesting the fish sufficient to increase fishermen's net revenues. Little extensive or reliable research has been completed on this topic which accounts for the relatively higher cost of this study component.

Combining of Models

Principal Investigator: Dr. Terry Smith, Institute for Social and Economic Research, University of Alaska Anchorage

Anticipated Cost: \$10,000

When completed, the four models described above will be combined into a single, complete software system for the analysis of specific policy questions. This contract will test specific future enhancement program options--such as maintaining, decreasing, or increasing current fish production levels, changing the current species mix, and maintaining or changing the location of enhancement projects--on the net economic benefits to fishermen and Alaskans. The results of this analysis will be a written report for the committee that will facilitate the development of public policy decisions. The final computer software product will be an interactive model housed and run by the Alaska Department of Fish and Game to address specific policy questions related to the salmon enhancement program. In addition, the model could be used to forecast salmon prices based on expected run sizes forecasted by the ADF&G, Division of Commercial Fisheries.

Conclusion

In addition to providing information on Alaska's salmon enhancement programs, the models developed by the study could be used for evaluating other salmon management policy questions.

The total estimated cost of the research is \$56,000 which is approximately \$18,000 less than the UAA, Institute of Economic and Social Research proposal provided in May 1991. The reasons for the estimated lower costs are that the hatchery cost model work would be done with current legislative and ADF&G staff and the economics modelling work would be a continuation of research conducted by Dr. Boyce for the F.R.E.D. Division.

The research proposed does not include studies to develop new markets or products for Alaska salmon for a number of reasons. The time available is insufficient, the cost of reliable marketing studies is usually quite high, and the Alaska Department of Commerce and Economic Development (DCED), Division of Economic Development and the Alaska Seafood Marketing Institute (ASMI) are both initiating salmon marketing studies in response to this summer's lower salmon prices. Therefore, the legislative economics and marketing group plans to provide information to the legislature on the success of past state efforts to market Alaska salmon and coordinate with the DCED efforts to avoid research duplication and encourage the best possible information. A copy of the DCED proposal is attached.

The proposed research also does not include studies to estimate the net benefits of the salmon enhancement program to sport or subsistence users. Including these additional uses would significantly expand the scope and cost of the studies.

September 6, 1991

(8)

**Some Preliminary Thoughts
on
The Salmon Strategy Task Force**

I. PURPOSE:

The purpose of the Task Force is to identify a production, harvesting, processing, and marketing strategy for Alaska's salmon industry which will maximize economic return to Alaska while also providing for responsible resource management.

II. SCOPE:

Shifts in production, harvesting and marketing of salmon in recent years have radically altered Alaska's role. The state must have a clear response to these changes. The economic future of fishermen and fishing communities is at stake and the State of Alaska also has at risk substantial loans regarding limited entry permits, fishing vessels, and nonprofit hatcheries.

III. ISSUES:

- A. What are likely future world salmon production and pricing levels?
- B. What should Alaska's hatchery and natural run production levels be to match the world market? Should Alaska attempt to compete in lower priced mass production with other producers or focus on higher priced specialty markets?
- C. If prices are expected to remain low, what are the options for reducing the cost of harvesting and processing Alaska salmon?
- D. What are the potential alternative markets for Alaska salmon?
- E. What are the potential product forms for Alaska salmon?
- F. Is illegal price setting taking place to artificially keep prices low?
- G. What programs can be established to improve the quality of Alaska salmon?
- H. What are the infrastructure developments necessary to improve transportation and warehousing/cold storage capability?
- I. What practical steps may be taken to Alaskanize the industry?

IV. TIME FRAME:

- A. Early appointment of members, identification of issues, and agreement on agenda by August 15.
- B. Assignments, research, enlisting of resource analysis and help, and first report by September 15.
- C. Report to the Governor and appropriate publics, and preliminary preparation for any legislative or executive action by November 1.

V. TASK FORCE COMPOSITION:

The Task Force should be kept small enough to facilitate timely identification of options for action, yet representative enough to enlist appropriate constituencies. They should be able to draw on government and private experts to help identify the options.

VI. RESOURCES:

- A. "Salmon 2000" report -- just released
- B. "Alaska Salmon: from a Natural State" -- just released

DRAFT

**DATA REQUEST FOR THE ALASKA DEPARTMENT OF FISH AND GAME
FOR THE LEGISLATIVE REVIEW OF THE SALMON ENHANCEMENT PROGRAM**

Population and Exploitation Model

The contractor will receive the following information from the Alaska Department of Fish and Game (ADF&G) and the Commercial Fisheries Entry Commission (CFEC):

- Copies of the FRED Division Annual Reports which list the major salmon enhancement projects in Alaska, and current enhancement numbers by species, and historical harvests by species - available by October 1
- A list and map of state and PNP salmon hatcheries in Alaska - available by October 1 from the FRED Division
- An address file for state and PNP hatcheries in Alaska - available by October 1 from the FRED Division
- An computer file which matches the 1990 Annual Report production numbers to harvests by an aggregation of fishing districts in each region - available by October 15 from the FRED Division for state hatcheries only, contact PNP's for this info.
PNP
- List of the primary fisheries harvesting state and PNP hatchery-produced fish - available by October 1 from the FRED Division
- Survey results from enhancement project operators providing a time series of production of juveniles by hatchery and by species - available by early November from the FRED Division
- Estimates of average historical harvests for 10-, 15-, and 20-year periods by species and subareas - available by mid-October from the Legislative Research Agency; the data for these estimates will be provided to the Legislative Research Agency by ADF&G by mid-September
- Survey results from enhancement project operators providing a time series of the returns and harvests of adult fish by region, district or aggregate of districts, and species - available by early November from the FRED Division
- Annual escapement and harvesting data by species and district from annual Area Management Reports and other databases - available by mid-October from the Division of Commercial Fisheries
- Comments on fishery manageability of the surveyed enhancement projects - available by mid-November from the Division of Commercial Fisheries

more areas
important.

how similar
are?
distinct subregions.

Access to coded wire tag data used to determine survival rates and differentiate wild and enhanced salmon stocks relevant to annual escapement and harvest by species and district - available by October 1 from the FRED Division

Demand Model

- Alaska Commercial Fisheries Entry Commission (CFEC) aggregated annual gross earnings and harvest data by salmon species (king, coho, sockeye, chum, and pink) by region and by fishery (purse seine, gill net, and troll) from 1974 through 1990.
- CFEC annual ex-vessel prices by species, region, and fishery from 1975 through 1990.
- CFEC annual aggregate of salmon processors gross earnings by species and region from 1984 through 1990.
- Completed work of Dr. Boyce, *A Comparison of Demand Models for Alaska Salmon*, University of Alaska Fairbanks, 1990.
- Survey results from enhancement project operators providing a time series of projected adult salmon harvests by hatchery, species, and fishing district (or combination of districts) - available by early November from the FRED Division.
- Estimates of average historical harvests for 10-, 15-, and 20-year periods by species and subareas - available by early October from the Legislative Research Agency; the data for these estimates will be provided to the Legislative Research Agency by ADF&G by mid-September.

Fishing Cost Model

- During a fishing season, there are approximately 650,000 fish tickets generated to track landings in the state's commercial fisheries. For each fish ticket, one observation is created for each species harvested and delivered to a process. These observations are collected into a single SAS dataset for each year that encompasses all landings for all of the regulated fisheries. A large portion of the fish ticket file consists of salmon landings. However, only a portion of the landings are relevant to fisheries affected by the fishery enhancement program. These include salmon fisheries in Kodiak, the Alaska Peninsula, Prince William Sound, Cook Inlet, and Southeast Alaska. The fish ticket computer file is available back to 1975. In addition, a computerized vessel license

file goes back to 1978. This file provides information on the fisheries in which a particular fisherman participates. This file also includes detailed information on fishing vessel characteristics. It is updated each week through out the fishing season.

The contractor will receive a listing of SAS library names and SAS file names from CFEC for the fish ticket file, and the vessel license file that corresponds to the relevant salmon fisheries.

- The contractor will receive a password for a hard drive accessible through the CFEC computer (available off the state mainframe) that will house the computer files. These data bases are confidential and modeling exercises as well as published simulations must be designed around these constraints.
- Information on the operation of the fisheries is to be made available to the contractor by providing recent management reports. Some ADF&G management biologists will be available to confer on the operation of the fisheries.
- FRED Division will supply information on the location of state and PNP enhancement projects, production from the hatcheries and historical harvests, by region and species from FRED Division annual reports.
- A list and map of state and PNP salmon hatcheries in Alaska - available by late-September from the FRED Division
- A computer file that matches the 1990 Annual Report production numbers to catches by an aggregation of fishing districts in each region - available by October 1 from the FRED Division for state hatcheries only.
- List of the primary fisheries harvesting state and PNP hatchery-produced fish - available from the FRED Division
- Survey results from enhancement project operators providing a time series of production of juveniles by hatchery and by species - available by early November from the FRED Division
- Estimates of average historical harvests for 10-, 15-, and 20-year periods by species and subareas
- Survey results from enhancement project operators providing a time series of the returns and harvests of adult fish by region, district, and species - available by early November from the FRED Division

September 16, 1991

DRAFT

**REIMBURSABLE SERVICES AGREEMENT CONTRACT
SPECIFICATION AND REQUEST FOR PROPOSAL
SALMON FISHERY COST MODEL**

Background

In the early 1970s, the state of Alaska initiated a salmon enhancement and rehabilitation program through the Alaska Department of Fish and Game (ADF&G), Fisheries Research and Enhancement (FRED) Division. The program consists of production from hatcheries, lake fertilization, fish passes, spawning channel and stream habitat improvements. The hatchery, or ocean ranching, portion of the program provided for two categories of hatcheries: one funded and operated by the state, and the other comprised of private, non-profit (PNP) hatcheries. The PNP hatcheries were to share their harvestable surplus with the traditional fishing fleets and sell a portion of returning fish to sustain the operation of the hatchery.

What began as an experiment, however, has resulted in a large, very successful pink salmon hatchery program, as well as chum and coho production, in Prince William Sound (PWS); chinook, coho and chum salmon production in southeast Alaska; sockeye and pink salmon production in Kodiak; and sockeye and king production in Cook Inlet. In general, the enhancement program has been successful in increasing salmon production and harvests in Alaska.

In the last 20 years, the FRED Division program has constructed over 20 hatcheries, 19 of which are currently in operation. Since 1972, the state of Alaska has invested approximately \$81 million in capital construction of hatchery facilities, and another \$170 million in the operation of these facilities. In addition to the state-owned facilities, 30 PNP-hatchery permits have been issued since the inception of the program, including 3 for the operation of state-owned facilities under special contract with the FRED Division. Currently, 21 of the permitted hatcheries are in operation and had returns of adult salmon in 1990. For PNPs, the state of Alaska has invested approximately \$51 million in loans, an additional \$20 million in operating costs, and \$31 million in grants. For state operated hatcheries and the enhancement program, the legislature has appropriated \$208 million for operational costs, \$41 million in capital costs, and authorized \$77 million in bonds sales.

As a result of these hatcheries and enhancement projects, the estimated total return of adult pink salmon to hatcheries in PWS has grown from 0.1 million fish in 1977 to 25.2 million fish in 1990. The hatchery-produced pink salmon have contributed up to 98 percent of the total pink harvest in PWS in recent years. In southeast Alaska, the initial plan was to produce 100,000 chinook salmon for the troll fishery. In 1990, however, the troll fishery harvested 55,000 fish because of difficulties targeting hatchery fish. Current statewide salmon harvests from the hatchery program range from 15 to 23 million fish and are expected to grow to approximately 30 million fish by 1995 given current levels of hatchery production capacity. The enhancement program could soon account for 20 to 35 percent of the statewide salmon harvest.

Purpose of the Proposed Research

In May 1991, the Senate Special Committee on International and Domestic Fisheries initiated an extensive review of the Alaska salmon hatchery and enhancement program. As a result of considerable interest in the project, participation in the Hatchery Research Project includes representatives from both the Senate and the House of Representatives. The purpose of the study is to 1) review the history and legislative intent of the enhancement program, 2) analyze the current status of the program, and 3) consider future options for the program--ranging from fine tuning to possible redirection.

As part of the Hatchery Research Project, an Economics and Marketing study group was developed to provide information to the legislature on the economic impacts of salmon hatchery production. The group was formed to help determine

- if the current levels of Alaska salmon harvests are over-or under-supplied from a world-market perspective and
- if increased hatchery production of salmon will raise or lower prices, fishing and processing revenues, and the total net value of Alaska's salmon fisheries.

To address these public policy questions requires a benefit-cost analysis. This type of analysis measures the level and cost of hatchery salmon production, the cost of harvesting and processing salmon, and the impact or "price responsiveness" of world salmon markets to various levels of Alaska salmon production. The costs are then subtracted from the benefits to estimate the net benefits of the salmon enhancement program and the incremental net benefits of different levels of salmon hatchery production. To provide this information the economics group has proposed a series of contracts, one of which is a fishing cost model designed to be part of a bioeconomic model of the fishery.

Description of Parties Involved

The Reimbursable Service Agreement (RSA) is between the Alaska State Legislature and the principal investigator or contractor. The primary legislative contacts are Ginny Fay, Economics and Marketing Group and staff to the Senate Special Committee on International and Domestic Fisheries, and Molly McCammon, Hatchery Project Coordinator. The Alaska Department of Fish and Game will provide technical advice and data required for the completion of the projects. The ADF&G contact(s) is Jeff Hartman, FRED Division, Juneau.

Fishing Cost Model for the Alaska Salmon Fishery

The objective of this study is to formulate and test empirical models that will project short- and long-run fishing costs for specific Alaska salmon fisheries. As part of the contract, the contractor will also be expected to develop computer software from reduced form equations to use in benefit-cost analysis computer simulations of fishery enhancement projects.

To conduct a benefit-cost analysis, fishing costs must be determined in the short and long run. In the short run, an enhancement project or a management action may encourage salmon fishermen to direct more fishing effort--which is a function of gear, boat size, horse power, and crew size, for example--into a specific statistical area and away from another statistical area (or alternative fishing opportunity). With the existing management constraints on salmon fishing in place, such as limited entry and fisheries openings and closures, the short-run increases in marginal costs may be smaller or larger than the potential short-run revenues from a given project. However, in the long run, fishermen can be expected to increase fishing effort in statistical areas where the marginal revenues are greater than marginal costs of fishing. Fishing effort would be increased even if new vessels are not allowed to enter the fishery. As a result of insufficient research, economists currently can only provide informed guesses of the magnitude of these short- and long-run fishing costs in Alaska's salmon fisheries.

Economic theory suggests that fishermen's behavior will be driven by their desire to earn economic profits. This means that fishermen will participate in fisheries that they perceive to be the best alternative available to them. The cost of remaining in a particular fishery or area depends upon fishing costs and revenues, and what alternative fishing opportunities are available in other areas. These costs can be inferred from entry/exit decisions (such as switching from one fishery to another) or from the travel costs from moving between fishing areas or fisheries. Fishing entry and exit decisions and fishing movements will also be affected by the abundance of fish in a fishery which affects the cost of fishing. An enhancement program or management action may alter fishing costs and revenues. Therefore, the marginal fishing costs of enhancement projects can be explained through fishery entry and exit and travel behavior. A fishing revenue model can be combined with a fishing cost model derived from entry and exit information to determine the net benefits of enhancement activities.

As a result of Alaska's limited entry permit and management programs that rely on area licensing, and records obtained by fish ticket and vessel surveys, it is possible to track the movements of individual fishermen within and between fisheries. It is also possible to relate these movements to the changes in fishing opportunities from enhancement and management actions. These relationships can be analyzed and modeled by examining the vessel-level data that are contained in fish ticket and vessel license files.

The purpose of this modeling exercise is to use data from the fish ticket and vessel license files to determine (1) the short-run marginal fishing costs from additional salmon harvests as a result of salmon enhancement projects, and (2) the long-run marginal fishing costs as fishermen increase capital investment in boats and gear.

Products of the Contract and Research Instructions

Cost-Model Requirements

The contractor will produce an empirically developed fishing cost model for each region of the state, capable of estimating marginal

fishing costs for changes in the abundance of salmon for each species and district (or aggregation of districts).

The contractor will produce the models through the application of inferential techniques that are consistent with economic theory.

In the event that inferential methods do not produce statistically reliable models, the contractor will be expected to provide ad hoc cost models for each fishery based upon best professional judgement.

All software for running simulations of the models must be produced in SAS, microcomputer version _____.

All computer software must be accompanied by complete usage instructions. In addition, the model must be sufficiently documented such that a user familiar with the SAS microcomputer software can operate the models.

A report using a standard research report format must be produced that includes sections describing the background, methodology, results, and conclusions of the modeling effort. For an example of an acceptable format, see (Boyce 1990).

Several simulations of policy questions must be included in the fishing cost analyses and report. These simulations will be dependent on hatchery and enhancement production scenarios resulting from a survey of enhancement projects. The simulations will be developed and specified to the contractor by mid-November.

The model, all explanatory variables, relevant input data files, and output data sets from simulations will be programmed in SAS and delivered to Ginny Fay with the Alaska State Legislature.

A thorough documentation of model assumptions and structure as well as instructions for model operation will be produced.

Any data collected to conduct the analysis will be the property of the Alaska State Legislature.

Information to be Supplied to the Contractor

The contractor will receive the following information from the Legislature and ADF&G:

During a fishing season, there are approximately 650,000 fish tickets generated to track landings in the state's commercial fisheries. For each fish ticket, one observation is created for each species harvested and delivered to a fish processor. Fish ticket data are collected into a single SAS dataset that encompasses all landings in a given year in regulated fisheries. A large portion of the fish ticket file consists of salmon landings.

However, only a portion of the landings are relevant to fisheries affected by the fishery enhancement program. These include salmon fisheries in Kodiak, the Alaska Peninsula, Prince William Sound, Cook Inlet, and Southeast Alaska. The fish ticket computer file is available back to 1975. In addition, a computerized vessel license file goes back to 1978. This file provides information on the fisheries in which a particular fisherman participates. This file also includes detailed information on fishing vessel characteristics. It is updated each week through out the fishing season.

The contractor will receive a listing of SAS library and file names from CFEC for the fish ticket file, and the vessel license file that corresponds to the relevant salmon fisheries.

- The contractor will receive a password for a hard drive accessible through the CFEC computer (available off the state mainframe) that will house the computer files. These data bases are confidential and modeling exercises as well as published simulations must be designed around these constraints.
- Information on the operation of the fisheries is to be made available to the contractor by providing recent management reports. Some ADF&G management biologists will be available to confer on the operation of the fisheries.
- FRED Division will supply information on the location of state and PNP enhancement projects, production from the hatcheries and historical harvests, by region and species from FRED Division annual reports.
- A list and map of state and PNP salmon hatcheries in Alaska - available by late-September from the FRED Division
- A computer file that matches the 1990 Annual Report production numbers to catches by an aggregation of fishing districts in each region - available by October 1 from the FRED Division for state hatcheries only.
- List of the primary fisheries harvesting state and PNP hatchery-produced fish - available from the FRED Division
- Survey results from enhancement project operators providing a time series of production of juveniles by hatchery and by species - available by early November from the FRED Division
- Estimates of average historical harvests for ten-, fifteen-, and twenty-year periods by species and subareas

Survey results from enhancement project operators providing a time series of the returns and harvests of adult fish by region, district, and species - available by early November from the FRED Division

Information to be Provided in the Research Proposal

The contractor will be expected to explain the following in the research proposal:

- Which fish ticket file data fields will be used in each of the cost models for a region of the state.
- Which vessel license file data fields will be used in the cost models.
- Specify the model equations to be tested.
- Show how the dependent variable (marginal fishing cost) will be computed for any year, species and district in the relevant fisheries for each modeling approach that will be applied.
- Identify each variable that will be used from the fish ticket file and vessel license file explicitly in the equations.
- List additional information or data that will be required from ADF&G.
- List any additional variables, not accessible in the fish ticket, and vessel license files required for the models. Explain how additional data will be obtained.
- Explain what statistical tests will be performed, what econometric statistics will be generated in the estimation, and how analysis of prediction errors will occur.

Cost Estimate

As part of the proposal, the contractor will itemize expected costs for: data collection, subcontracting, programming, and model documentation of statistical results and software operating instructions.

Schedule of Research Activities

Proposals should be submitted by September 27, 1991 and should include a schedule of completion milestones from data collection through programming and model testing. The due date for the final model software and documentation is December 1, 1991. The decision on contract awards will be made by October 4, 1991.

DRAFT

Research Funding Provided

\$20,000

**REIMBURSABLE SERVICES AGREEMENT CONTRACT
SPECIFICATION AND REQUEST FOR PROPOSAL
SALMON HATCHERY POPULATION AND EXPLOITATION MODELING**

Background

In the early 1970s, the state of Alaska initiated a salmon enhancement and rehabilitation program through the Alaska Department of Fish and Game (ADF&G), Fisheries Research and Enhancement (FRED) Division. The program consists of production from hatcheries, lake fertilization, fish passes, spawning channel and stream habitat improvements. The hatchery, or ocean ranching, portion of the program provided for two categories of hatcheries: one funded and operated by the state, and the other comprised of private, non-profit (PNP) hatcheries. The PNP hatcheries were to share their harvestable surplus with the traditional fishing fleets and sell a portion of returning fish to sustain the operation of the hatchery.

What began as an experiment, however, has resulted in a large, very successful pink salmon hatchery program, as well as chum and coho production, in Prince William Sound (PWS); chinook, coho and chum salmon production in southeast Alaska; sockeye and pink salmon production in Kodiak; and sockeye and king production in Cook Inlet. In general, the enhancement program has been successful in increasing salmon production and harvests in Alaska.

In the last 20 years, the FRED Division program has constructed over 20 hatcheries, 19 of which are currently in operation. Since 1972, the state of Alaska has invested approximately \$81 million in capital construction of hatchery facilities, and another \$170 million in the operation of these facilities. In addition to the state-owned facilities, 30 PNP-hatchery permits have been issued since the inception of the program, including 3 for the operation of state-owned facilities under special contract with the FRED Division. Currently, 21 of the permitted hatcheries are in operation and had returns of adult salmon in 1990. For PNPs, the state of Alaska has invested approximately \$51 million in loans, an additional \$20 million in operating costs, and \$31 million in grants. For state operated hatcheries and the enhancement program, the legislature has appropriated \$208 million for operational costs, \$41 million in capital costs, and authorized \$77 million in bonds sales.

As a result of these hatcheries and enhancement projects, the estimated total return of adult pink salmon to hatcheries in PWS has grown from 0.1 million fish in 1977 to 25.2 million fish in 1990. The hatchery-produced pink salmon have contributed up to 98 percent of the total pink harvest in PWS in recent years. In southeast Alaska, the initial plan was to produce 100,000 chinook salmon for the troll fishery. In 1990, however, the troll fishery harvested 55,000 fish because of difficulties targeting hatchery fish. Current statewide salmon harvests from the hatchery program range from 15 to 23 million fish and are expected to grow to approximately 30 million fish by 1995 given current levels of hatchery production capacity. The enhancement program could soon account for 20 to 35 percent of the statewide salmon harvest.

Purpose of the Proposed Research

In May 1991, the Senate Special Committee on International and Domestic Fisheries initiated an extensive review of the Alaska salmon hatchery and enhancement program. As a result of considerable interest in the project, participation in the Hatchery Research Project includes representatives from both the Senate and the House of Representatives. The purpose of the study is to 1) review the history and legislative intent of the enhancement program, 2) analyze the current status of the program, and 3) consider future options for the program--ranging from fine tuning to possible redirection.

As part of the Hatchery Research Project, an Economics and Marketing study group was developed to provide information to the legislature on the economic impacts of salmon hatchery production. The group was formed to help determine

- if the current levels of Alaska salmon harvests are over-or under-supplied from a world-market perspective and
- if increased hatchery production of salmon will raise or lower prices, fishing and processing revenues, and the total net value of Alaska's salmon fisheries.

To address these public policy questions requires a benefit-cost analysis. This type of analysis measures the level and cost of hatchery salmon production, the cost of harvesting and processing salmon, and the impact or "price responsiveness" of world salmon markets to various levels of Alaska salmon production. The costs are then subtracted from the benefits to estimate the net benefits of the salmon enhancement program and the incremental net benefits of different levels of salmon hatchery production. To provide this information the economics group has proposed a series of contracts, one of which is a population and exploitation model designed to fit into a bioeconomic model of the fishery.

Population and Exploitation Model

In contrast to farmed salmon, salmon produced by hatcheries and other enhancement projects are exposed to similar biological and environmental conditions and fisheries as wild stocks. As a result, population and exploitation research will estimate the interdependence of wild and hatchery stocks and the impacts of salmon harvesting pressure on population sizes. The objective of the modeling exercise is to produce both a model and simulations from the model that project the number of fish returning as adults from enhancement projects, the harvest of these enhanced salmon in the commercial fishery, and harvests of wild salmon in the commercial fishery. The population and exploitation modeling will be conducted by formulating and testing empirical models that will project short- and long-run harvests of enhanced salmon and harvests of wild salmon stocks for each year from 1992 to 2022 under various enhanced salmon juvenile production levels. The outputs from the bioeconomic population and exploitation modeling will be combined with salmon demand models and fishing cost models to estimate the net benefits of the statewide salmon enhancement program on the commercial fishery.

Description of Parties Involved

The Reimbursable Service Agreement (RSA) is between the Alaska State Legislature and the principal investigator or contractor. The primary legislative contacts are Ginny Fay, Economics and Marketing Group and staff to the Senate Special Committee on International and Domestic Fisheries, and Molly McCammon, Hatchery Project Coordinator. The Alaska Department of Fish and Game will provide technical advice and data required for the completion of the projects. The ADF&G contact(s) _____.

Products of the Contract and Research Instructions

As a result of data limitations, the contractor is expected to "bound" the possible outcomes of wild and enhanced stocks interaction and population responses to fishing pressure. One modeling approach will assume that the wild and enhanced salmon stocks are biologically independent--the enhanced stock production will be considered to be linear and independent of the wild salmon population size. Under this scenario, ten-, fifteen-, and twenty-year harvest averages will be used to develop the probable harvests of wild and enhanced salmon stocks by species and region. Information on adult returns, historical fishing pressure and harvest rates will be provided by the survey of hatchery operators. This modeling exercise will be the simplest and probably the most optimistic in terms of enhanced salmon production scenarios. The estimates of average historical harvests to be used in this modeling approach will be developed by the Legislative Research Agency. This information will be provided to the contractor by October 15, 1991.

A second and more complex approach includes the assumption of density dependence between the wild and enhanced stock. However, because of data limitations, future harvests of enhanced and wild stocks can not be projected with much precision. Some of the barriers to the estimation of harvests are identified below:

- There is a lack of precise data on harvest and escapement of wild stocks. In many cases, survey data for wild stock escapements are primarily estimates. Harvest data by region and district may be fairly accurate, but harvests in specific statistical areas are difficult to determine because landings can not be related to specific natal streams.
- There is a lack of data on biological and habitat influences in the near-shore marine and open-ocean environment, and how these biological and environmental influences interact to limit or control the growth of wild and enhanced salmon populations. The major influences might consist of food and feeding competition, predator-prey relationships, and genetic and fishery interactions.
- As a result of insufficient tagging data, in most fisheries there is an inability to 1) separate enhanced and wild stocks in mixed fisheries, and 2) model fishery management actions and decisions in dynamic fisheries, and the resulting fishing behavior in regulated fisheries. This undermines the ability to model fishing pressure that would be exerted on enhanced and wild salmon stocks.

Because of these data and modeling constraints, the contractor will be expected to roughly "bound" the possible population estimates of wild and enhanced salmon stocks and the responses of these populations to fishing pressure. Many of the assumptions of the density-dependent population model will need to be developed with data and staff assistance from the ADF&G, Division of Commercial Fisheries. This will necessitate direct interactions with Division of Commercial Fisheries area management biologists.

The contractor will be expected to produce the following:

The model, all explanatory variables, relevant input data files, and output data sets from simulations will be programmed in SAS and delivered to Ginny Fay with the Alaska State Legislature.

Thorough documentation of model assumptions and structure as well as instructions for model operation.

Any data that is not litigation sensitive, will be the property of the Alaska State Legislature.

Simulation of several population modeling outcomes representing a range of pessimistic, most likely, and optimistic production scenarios. The contractor will be expected to identify which of the simulation outcomes fit into an optimistic, most likely, and pessimistic harvest range.

Information to be Supplied to the Contractor

The contractor will receive the following information from ADF&G:

- Copies of the FRED Division Annual Reports which list the major salmon enhancement projects in Alaska, and current enhancement numbers by species, and historical harvests by species - available by October 1
- A list and map of state and PNP salmon hatcheries in Alaska - available by October 1 from the FRED Division
- An address file for state and PNP hatcheries in Alaska - available by October 1 from the FRED Division
- An computer file which matches the 1990 Annual Report production numbers to harvests by an aggregation of fishing districts in each region - available by October 1 from the FRED Division for state hatcheries only
- List of the primary fisheries harvesting state and PNP hatchery-produced fish - available by October 1 from the FRED Division
- Survey results from enhancement project operators providing a time series of production of juveniles by hatchery and by species - available by early November from the FRED Division

Estimates of average historical harvests for ten-, fifteen-, and twenty-year periods by species and subareas - available by mid-October from the Legislative Research Agency; the data for these estimates will be provided to the Legislative Research Agency by ADF&G by mid-September

Survey results from enhancement project operators providing a time series of the returns and harvests of adult fish by region, district or aggregate of districts, and species - available by early November from the FRED Division

Annual escapement and harvesting data by species and district from annual Area Management Reports and other databases - available by mid-October from the Division of Commercial Fisheries

Comments on fishery manageability of the surveyed enhancement projects - available by mid-November from the Division of Commercial Fisheries

Access to coded wire tag data used to determine survival rates and differentiate wild and enhanced salmon stocks relevant to annual escapement and harvest by species and district - available by October 1 from the FRED Division

Information to be Provided in the Research Proposal

The contractor will be expected to explain the following in the research proposal:

- 1) Explain the model specifications, dependent variables, and function(s) intended to be used to describe the future population size of enhanced and wild salmon stocks.
- 2) Explain how biological and environmental sources of potential interaction will be modeled.
- 3) Explain how data necessary for the development of the model will be obtained.
- 4) Explain how the effects of fisheries management will be included in the model.
- 5) Explain how the effects of learning by fisheries managers will be included in the model.
- 6) If there is insufficient time and/or data to empirically model wild and enhanced stocks interactions for the entire statewide enhancement program, the contractor should identify ad hoc approaches to modeling harvests and populations. Based on data limitations, the modeling exercise in each region could be conducted at the "super-district" level--a combination of

two or more districts. For example, the contractor could concentrate on an empirical modeling approach for pink salmon in PWS and conduct a more ad hoc analysis for other areas and fisheries in the state. This approach needs to be explained in the contractor's research proposal.

Cost Estimate

As part of the proposal, the contractor will itemize expected costs for: data collection, subcontracting, programming, and model documentation of statistical results and software operating instructions.

Schedule of Research Activities

Proposals should be submitted by September 20, 1991 and should include a schedule of completion milestones from data collection through programming and model testing. The due date for the final model software and documentation is December 1, 1991. The decision on contract awards will be made by September 25, 1991.

Research Funding Provided

\$10,000

**REIMBURSABLE SERVICES AGREEMENT CONTRACT
SPECIFICATION AND REQUEST FOR PROPOSALS
SALMON DEMAND MODELING**

Background

In the early 1970s, the state of Alaska initiated a salmon enhancement and rehabilitation program through the Alaska Department of Fish and Game (ADF&G), Fisheries Research and Enhancement (FRED) Division. The program consists of production from hatcheries, lake fertilization, fish passes, spawning channel and stream habitat improvements. The hatchery, or ocean ranching, portion of the program provided for two categories of hatcheries: one funded and operated by the state, and the other comprised of private, non-profit (PNP) hatcheries. The PNP hatcheries were to share their harvestable surplus with the traditional fishing fleets and sell a portion of returning fish to sustain the operation of the hatchery.

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Purpose of the Proposed Research

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As part of the Hatchery Research Project, an Economics and Marketing study group was developed to provide information to the legislature on the economic impacts of salmon hatchery production. The group was formed to help determine

- if the current levels of Alaska salmon harvests are over-or under-supplied from a world-market perspective and
- if increased hatchery production of salmon will raise or lower prices, fishing and processing revenues, and the total net value of Alaska's salmon fisheries.

To address these public policy questions requires a benefit-cost analysis. This type of analysis measures the level and cost of hatchery salmon production, the cost of harvesting and processing salmon, and the impact or "price responsiveness" of world salmon markets to various levels of Alaska salmon production. The costs are then subtracted from the benefits to estimate the net benefits of the salmon enhancement program and the incremental net benefits of different levels of salmon hatchery production to the commercial fishery. To provide this information the economics group has proposed a series of contracts, one of which is additional research on the demand for Alaska salmon.

Description of Parties Involved

The Reimbursable Service Agreement (RSA) is between the Alaska State Legislature and the principal investigator. The primary legislative contacts are Ginny Fay, Economics and Marketing Group and staff to the Senate Special Committee on International and Domestic Fisheries, and Molly McCammon, Hatchery Project Coordinator. The Alaska Department of Fish and Game will provide technical advice and data required for the completion of the projects. The ADF&G contact is _____.

Background on Alaska Salmon Demand Modeling

In 1990, Dr. John Boyce, University of Alaska Fairbanks completed work for the ADF&G, FRED Division comparing single-equation and system of equations demand models for Alaska salmon (Boyce 1990). The study compared two, single-equation models developed by Ben Muse of the Alaska Commercial Fisheries Entry Commission (CFEC) in 1984 and Nick Ronan, University of Alaska Anchorage, Institute for

Social and Economic Research (ISER) in 1989, and an alternative model proposed by Hongru Zhang, University of Alaska Fairbanks graduate student, using a Two-Stage-Least-Squares (2SLS) approach. Boyce found that the 2SLS approach appears to have superior predictive capability within the sample.

Boyce (1990) estimates ex-vessel and wholesale prices for five species of Pacific salmon, which is required for evaluating enhancement project tradeoffs between different salmon species and markets that are relevant to the state of Alaska. However, Boyce's study did not (1) develop a satisfactory profit function at the wholesale level for all salmon species, (2) conduct a full testing of wild, enhanced, and farmed salmon substitutes, including the extent to which farmed-salmon production is a substitute for Alaska salmon harvests, (3) link ex-vessel markets or wholesale markets to retail consumer markets, and (4) produce demand models for pink and sockeye salmon with low estimation errors.

In addition to this recently completed research by Dr. Boyce, recent econometric analyses completed by Lin and Herrmann (1988) and Mittelhammer, Herrmann, and Lin (1989) provide considerable information on the import and export markets for salmon, and the relationship of farmed-salmon markets to capture-fishery markets.

The models of Mittelhammer, Herrmann, and Lin develop demand functions using import and export data closer to the final markets. They include more substitutes, and incorporate a supply and demand model for farmed salmon. However, the models are not sufficiently stratified by species at the ex-vessel level for evaluating tradeoffs in Alaska's statewide enhancement program.

Neither of the two modeling efforts (Boyce or Mittelhammer, Herrmann, and Lin) were designed to compute regional distribution of gross earnings within the major Alaska salmon fisheries, or the amount of price response imposed on a given region by another region's salmon production. The ability to discern regional impacts is a lower priority than other objectives of the RSA, but is still of interest in evaluating the benefits and costs of the salmon enhancement program.

Products of the Contract and Research Instructions

Demand Model Requirements:

- Computer simulation models must be developed that will project market prices for the five species of Pacific salmon such that the change in total revenue can be estimated for various enhancement production scenarios in Alaska. The time horizon of the projections will be 30 years.

- The models must have the ability to estimate own price-response for each of the five species of Pacific salmon and cross-price response with respect to other relevant species of salmon harvested in capture fisheries--the model must be able to detect changes in prices of one species from the output of another species.

The models must have the ability to estimate price impacts of changes in farmed-salmon production on each relevant species of Alaska salmon.

If possible, the models should have the ability to discern market linkages and price-setting mechanisms between ex-vessel, wholesale, and export markets.

The contractor will be expected to produce the following:

All variables used to estimate the dependent variables of ex-vessel prices, must be provided by the contractor and projected 30 years into the future.

The models will be judged on their conformance to economic theory, econometric statistics generated in the estimation, and analysis of prediction errors (see the appendix).

The performance of the demand models for sockeye, chum, pink, coho, and chinook salmon will be judged by their ability to estimate annual CFEC ex-vessel prices, and possibly monthly or quarterly prices at the ex-vessel and other market levels. Specific econometric tests for the estimation of errors are defined in the appendix, but the ability to minimize errors (as well as the sign and significance of the coefficients on the independent variables) will be highly weighted in judging model performance.

After model performance is established, the contractor will run model simulations aimed at predicting annual CFEC statewide prices for all five species of salmon. Appropriate sensitivity testing will be applied to determine how variability in the input variables will affect the variability of the dependent variable, ex-vessel price. See Lin and Herrmann, 1988, An Econometric Analysis of Atlantic Salmon Markets in the United States and France for an example of how the sensitivity analysis could be conducted.

A description of how the contractor will handle uncertainty in estimating the dependent variable and any exogenous variables in the model must be included.

The contractor will also choose an interval of the time series for out-of-sample testing and compare the predicted and observed dependent variables using the statistical tests described above and in the appendix.

The contractor will test the ability of the data to econometrically estimate regional prices in Prince William Sound, Cook Inlet, Kodiak/Alaska Peninsula, Southeast, and Interior/Alaska Yukon-Kuskokwim Delta. Regional price estimates must be able to detect the amount of price response distributed in each region as a result

of changes in salmon prices and/or production in another region(s). In the absence of an econometric solution to the estimation of regional prices, the contractor will construct a best-professional estimation methodology.

All software for running simulations of the models must be produced in SAS, microcomputer version _____.

All computer software must be accompanied by complete usage instructions. In addition, the model must be sufficiently documented such that a user familiar with the SAS microcomputer software can operate the models.

A report using a standard research report format must be produced that includes sections describing the background, methodology, results, and conclusions of the modeling effort. For an example of an acceptable format, see (Boyce 1990).

Several simulations of policy questions must be included in the demand analyses and report. These simulations will be dependent on hatchery and enhancement production scenarios resulting from a survey of enhancement projects. The simulations will be developed and specified to the contractor by mid-November.

Information to be Supplied to the Contractor

Alaska Commercial Fisheries Entry Commission (CFEC) aggregated annual gross earnings and harvest data by salmon species (king, coho, sockeye, chum, and pink) by region and by fishery (purse seine, gill net, and troll) from 1974 through 1990.

CFEC annual ex-vessel prices by species, region, and fishery from 1975 through 1990.

CFEC annual aggregate of salmon processors gross earnings by species and region from 1984 through 1990.

Completed work of Dr. Boyce, A Comparison of Demand Models for Alaska Salmon, University of Alaska Fairbanks, 1990.

Survey results from enhancement project operators providing a time series of projected adult salmon harvests by hatchery, species, and fishing district (or combination of districts) - available by early November from the FRED Division.

Estimates of average historical harvests for ten-, fifteen-, and twenty-year periods by species and subareas - available by early October from the Legislative Research Agency; the data for these estimates will be provided to the Legislative Research Agency by ADF&G by mid-September.

[DRAFT]

Information to be Provided in the Research Proposal

The contractor will be expected to explain the following in the research proposal:

- The variables to be tested in each of the demand models developed, and the source of the data for each of the model variables.
- The structural equations and functional forms to be tested in the development of statewide and regional demand models.
- Explain how the dependent variable (marginal revenue) will be computed for any year, species, and fishery for each modeling approach applied.
- Identify each variable that will be used from the list in 1) explicitly in the equations.
- List additional information or data on fisheries that will be required from ADF&G.
- Explain what statistical tests will be performed, what econometric statistics will be generated in the estimation, and how analysis of prediction errors will occur.
- A cost estimate for various portions of the work and a schedule of activities (see below).

Cost Estimate

As part of the proposal, the contractor will itemize expected costs for: data collection, subcontracting, programming, and model documentation of statistical results and software operating instructions.

Schedule of Research Activities

Proposals should be submitted by September 27, 1991 and should include a schedule of completion milestones from data collection through programming and model testing. The due date for the final model software and documentation is December 1, 1991. The decision on contract awards will be made by October 4, 1991.

Research Funding Provided

\$18,000

Appendix. Suggested Statistical Tests for Analyzing Model Prediction Errors

For each of the specified price models, the Principal Investigator will compare model price forecasts with actual prices, and calculate and graph the prediction errors, and calculate the following statistics:

- mean percent error
- mean absolute error
- mean squared percent error
- Theil's bias, variance, and covariance and Theil's bias, squared percent error (as described in Maddala, 19__, pages 344 and 345),
- Theil's U1 statistic, as described in Maddala, 19__, pages 346 and 347,
- root mean squared error

Where appropriate, the contractor will compare the errors produced by the different models and will test to see if there are statistically significant differences between the mean absolute percent errors and the mean squared percent errors produced by those models. Parametric and non-parametric tests will be used to evaluate statistical significance.

The contractor will summarize these statistics in a convenient form. This form should permit easy comparisons of the statistics for comparable models. The contractor will (1) provide a description of the error statistics that is useful to persons unfamiliar with these statistics, and (2) discuss the implications of the model error statistics for the use of the models, and for future research directions. Among other research possibilities, the contractor will evaluate the potential of combining the structural models evaluated in this RSA with time series models of their error terms.

Rough preliminary
DRAFT

**REIMBURSABLE SERVICES AGREEMENT CONTRACT
SPECIFICATION AND REQUEST FOR PROPOSALS
SOFTWARE DEVELOPMENT AND POLICY ANALYSIS
OF A BENEFIT-COST ANALYSIS
OF THE STATEWIDE ENHANCEMENT PROGRAM**

Background

In the early 1970s, the state of Alaska initiated a salmon enhancement and rehabilitation program through the Alaska Department of Fish and Game (ADF&G), Fisheries Research and Enhancement (FRED) Division. The program consists of production from hatcheries, lake fertilization, fish passes, spawning channel and stream habitat improvements. The hatchery, or ocean ranching, portion of the program provided for two categories of hatcheries: one funded and operated by the state, and the other comprised of private, non-profit (PNP) hatcheries. The PNP hatcheries were to share their harvestable surplus with the traditional fishing fleets and sell a portion of returning fish to sustain the operation of the hatchery.

What began as an experiment, however, has resulted in a large, very successful pink salmon hatchery program, as well as chum and coho production, in Prince William Sound (PWS); chinook, coho and chum salmon production in southeast Alaska; sockeye and pink salmon production in Kodiak; and sockeye and king production in Cook Inlet. In general, the enhancement program has been successful in increasing salmon production and harvests in Alaska.

In the last 20 years, the FRED Division program has constructed over 20 hatcheries, 19 of which are currently in operation. Since 1972, the state of Alaska has invested approximately \$81 million in capital construction of hatchery facilities, and another \$170 million in the operation of these facilities. In addition to the state-owned facilities, 30 PNP-hatchery permits have been issued since the inception of the program, including 3 for the operation of state-owned facilities under special agreement with the FRED Division. Currently, 21 of the permitted hatcheries are in operation and had returns of adult salmon. For PNPs, the state of Alaska has invested approximately \$51 million in an additional \$20 million in operating costs, and \$31 million in grants to state operated hatcheries. In the enhancement program, the legislature appropriated \$208 million for operational costs, \$41 million in capital costs, and authorized \$77 million in bonds sales.

As a result of these hatcheries and enhancement projects, the estimated total return of adult pink salmon to hatcheries in PWS has grown from 0.1 million fish in 1977 to 25.2 million fish in 1990. The hatchery-produced pink salmon have contributed up to 98 percent of the total pink harvest in PWS in recent years. In southeast Alaska, the initial plan was to produce 100,000 chinook salmon for the troll fishery. In 1990, however, the troll fishery harvested 55,000 fish because of difficulties targeting hatchery fish. Current statewide salmon harvests from the hatchery program range from 15 to 23 million fish and are expected to grow to approximately 30 million fish by 1995 given current levels of hatchery production capacity. The enhancement program could soon account for 20 to 35 percent of the statewide salmon harvest.

Purpose of the Proposed Research

In May 1991, the Senate Special Committee on International and Domestic Fisheries initiated an extensive review of the Alaska salmon hatchery and enhancement program. As a result of considerable interest in the project, participation in the Hatchery Research Project includes representatives from both the Senate and the House of Representatives. The purpose of the study is to 1) review the history and legislative intent of the enhancement program, 2) analyze the current status of the program, and 3) consider future options for the program--ranging from fine tuning to possible redirection.

As part of the Hatchery Research Project, an Economics and Marketing study group was developed to provide information to the legislature on the economic impacts of salmon hatchery production. The group was formed to help determine

- if the current levels of Alaska salmon harvests are over-or under-supplied from a world-market perspective and
- if increased hatchery production of salmon will raise or lower prices, fishing and processing revenues, and the total net value of Alaska's salmon fisheries.

To address these public policy questions requires a benefit-cost analysis. This type of analysis measures the level and cost of hatchery salmon production, the cost of harvesting and processing salmon, and the impact or "price responsiveness" of world salmon markets to various levels of Alaska salmon production. The costs are then subtracted from the benefits to estimate the net benefits of the salmon enhancement program and the incremental net benefits of different levels of salmon hatchery production to the commercial fishery. To provide this information the economics group has proposed a series of contracts, one of which is the development of computer software that combines each of the software packages into a simultaneously estimated system that computes producer surpluses and several other economic outputs, as well as reports on the results of several economic simulations.

Benefit-Cost Analysis Research Components

The five research components of the complete benefit-cost modeling effort are:

- 1) a hatchery production and cost model, produced by a survey administered by the Alaska State Legislature,
- 2) a fish population and exploitation model linked to fishing effort and harvests,
- 3) a demand model for Alaska salmon in world markets,
- 4) a fishing cost model, and

- 5) a computer software system to combine the four models, simulation of specific policy questions, and a report summarizing the results of the simulations.

The latter four research components will be conducted through RSAs between the Alaska State Legislature and University of Alaska.

Description of Parties Involved

The Reimbursable Service Agreement (RSA) is between the Alaska State Legislature and the principal investigator. The primary legislative contacts are Ginny Fay, Economics and Marketing Group and staff to the Senate Special Committee on International and Domestic Fisheries, and Molly McCammon, Hatchery Project Coordinator. The Alaska Department of Fish and Game will provide technical advice and data required for the completion of the projects. The ADF&G contact is _____.

Combining of Models for Public Policy Analysis

The purpose of this RSA is to:

- 1) combine the enhancement production, population-exploitation, demand, and fishing cost models into a single, benefit-cost model programmed in SAS,
- 2) complete specific public policy simulations to evaluate the salmon enhancement program,
- 3) analyze the distribution of probable simulation outcomes and model prediction reliability,
- 4) conduct sensitivity analyses to test the impact of changes in model exogenous input variables (such as changes in world farmed-salmon production and exchange rates on salmon prices), and
- 5) report the results of the simulations in a written report to the Alaska State Legislature, Senate Special Committee on International and Domestic Fisheries.

The purpose of the model computer simulations is to estimate the net present value and the distribution of the net benefits of various salmon enhancement program alternatives. The results of these simulations and a discussion of their public policy implications are to be reported to the legislature.

The final computer software product will be an interactive model, housed and operated by the Alaska Department of Fish and Game. While the primary intent of the contract is to analyze the ADF&G salmon enhancement program, the computer model should also be capable of forecasting Alaska salmon prices.

Specific Policy Questions for Computer Simulations

For each of the following specified cases, the contractor will be required to report the absolute mean price for each salmon species; own-price elasticity of demand for each salmon species; the cross-price elasticity of demand for other species of Alaska salmon and farmed salmon, where applicable; the change in total revenue by species; distribution of gross earnings by fishing region and gear group, if possible; distribution of fishing costs by district or combination of districts; distribution of enhancement program net benefits by fishing region and by gear group within fishing regions, if possible; distribution of production costs by government and regional associations; and the net present value of the fisheries over a 30-year period.

- Case 1. Base Case--the salmon enhancement program continues at currently permitted capacity levels.
- Case 2. The salmon enhancement program is eliminated.
- Case 3. The budget for enhancement projects is increased by an increment of 10 to 20 percent.
- Case 4. The budget for enhancement projects is decreased by an increment of 10 to 20 percent.
- Case 5. The pink salmon program is eliminated and all else remains at the currently permitted program capacity level.
- Case 6. The sockeye salmon program is eliminated and all else remains at the currently permitted capacity level.
- Case 7. The budget for pink salmon projects is increased by an increment of 10 to 20 percent and all else remains at the currently permitted capacity level.
- Case 8. The budget for sockeye salmon projects is increased by an increment of 10 to 20 percent and all else remains at the currently permitted capacity level.

Modeling Data

The population and exploitation, demand, and cost models will each result in data inputs, outputs, and stochastic methods for sensitivity analyses to test the impacts of uncertainty. Each of these models will result in computer software containing model variables and sensitivity tests.

While it is impossible to identify all significant variables that will result from these studies, the probable input and output variables are listed below.

Data from Survey of State and Private Non-Profit Operators

The following variables will be projected for each enhancement, rehabilitation, or limnology project by species, commercial harvest, year, and district or aggregation of districts. The variables will be projected for each of the eight simulation cases identified above.

- Eggs taken
- Juvenile salmon releases
- Number of returning adult salmon
- Exploitation
- Adults produced
- Adults harvested
- Mean weight per fish
- Accounting costs of enhanced production
- Accounting costs of additional administration costs
- Accounting costs of additional evaluation and management costs

Salmon Population and Exploitation Model

Inputs:

- All survey information from state of Alaska and PNP enhancement and rehabilitation projects described above.
- Historical juvenile releases from all projects by species and year.
- Coded wire tag estimates of harvests by statistical area, species, and gear group.
- Estimates of enhancement releases (from the coded wire tag database) by species, size, and location.
- Juvenile survivals by age class and aggregated across age classes.

Outputs:

- Harvests for wild and enhanced fish by year species and district or combination of districts.
- Harvest weight of wild and enhanced fish by year, species, and district or combination of districts.

Demand Model**Inputs:**

- 10-, 15-, and 20-year historical commercial harvests of Alaska salmon.
- Aggregated statewide CFEC annual gross earnings and production summaries.
- CFEC annual gross earnings and production summaries aggregated by fishing region.
- CFEC wholesale price series.
- Import and export prices and quantities by country (monthly or quarterly).
- Prime Interest Rate in importing countries
- Exchange rates with respect to U.S. dollar in importing countries.
- Population
- Income of consumers
- Historical farmed-salmon imports and exports by pounds and gross earnings
- Inventories for fresh frozen, canned salmon products
- Salmon substitutes prices and production

Outputs:

- Projection of ex-vessel prices for each species by region.
- Supply and demand equations for Alaska and farmed salmon.

Cost Model**Inputs:**

- Fish ticket file data for relevant fisheries (e.g. harvest and gross earnings by social security number of fisherman, statistical area, species, and date).
- Vessel license file data for relevant fisheries (e.g. boat length, net tonnage, fisherman social security number).

- Historical fishery management area openings and closings
- Basic information on how the fisheries are managed.

Outputs:

- Projection of marginal costs of fishing and incremental costs of fishing by: district or combination of districts, species, and gear group, and year.

Combined Software Benefit-Cost Analysis

Inputs:

- Costs of producing salmon enhancement increments.
- Distribution of funding for enhancement productions costs from state government and/or regional aquaculture associations.
- Costs of evaluating and managing enhanced and wild stocks.
- Distribution of funding for management costs from state government and/or regional associations.
- Cost of FRED administration of enhancement projects.
- Demand model, SAS software, and operating instructions.
- All exogenous variables required to estimate market prices for computer simulations.
- Cost model, SAS software, and operating instructions.
- Distribution of the gross earnings by permit holder/fisherman's residence.

Outputs:

All model results should be conducted in the context of a low-, mid-, and high-salmon price sensitivity analyses based on the variation in model exogenous variables such as world farmed-salmon production levels and monetary exchange rates. Specific data to be provided include:

- Present value of the salmon enhancement benefits, by year, and state, and national accounting stance.
- Distribution of gross earnings by fishing region, e.g. Prince William Sound, Southeast Alaska, Cook Inlet, Kodiak and Alaska Peninsula, and Interior, and Alaska Yukon Kuskokwim Delta, and nonresidents.

- Distribution of fishing costs by fishing region and nonresidents.
- Present value of the costs, by year and state and national accounting stance.
- Distribution of the enhancement program net benefits between fishing regions and gear groups.
- Estimates of Net Present Value (NPV) of the salmon enhancement program under each of the eight simulations and a 90 percent confidence interval for all NPV estimates.
- Elasticity of demand at given harvest level and mean values of exogenous variables.

Products of the Contract and Research Instructions

The contractor will be expected to produce the following:

- The contractor must formally comment on the other research proposals to identify any variables not specified in this proposal that will be required to complete the combined software development and policy analysis.
- The contractor must transfer the population and exploitation model from Fortran to SAS.
- The contractor must develop the final SAS programming for an integrated benefit-cost model.
- The contractor must estimate an interest rate for discounting and a variance for the interest rate appropriate to sensitivity testing.
- The contractor must interact with other the research component contractors to understand individual models. The contractor for the combined model simulations will be responsible for synthesis of the research components/models into one software package.
- The contractor must report on the results of the simulations.
- The contractor must describe a methodology for addressing uncertainty in estimating the dependent variable and any exogenous variables not estimated in the other research component modeling contracts.
- All software for running simulations of the models must be produced in SAS, microcomputer version _____.

- All computer software must be accompanied by complete usage instructions. In addition, the model must be sufficiently documented such that a user familiar with the SAS microcomputer software can operate the models.

- A report using a standard research report format must be produced that includes sections describing the background, methodology, results, and conclusions of the modeling effort. For an example of an acceptable format, see (Boyce 1990).

Information to be Supplied to the Contractor

- Completed work of Dr. Boyce, A Comparison of Demand Models for Alaska Salmon, University of Alaska Fairbanks, 1990.

- Survey results from enhancement project operators providing a time series of projected adult salmon harvests by hatchery, species, and fishing district (or combination of districts) - available by early November from the FRED Division.

- Estimates of average historical harvests for 10-, 15-, and 20-year periods by species and subareas.

- Hatchery production survey results.

- Population and exploitation models, and all related software by December 15, 1991.

- Demand models, all related software by December 15, 1991.

- Fishing cost models and all related software by December 15, 1991.

Information to be Provided in the Research Proposal

The contractor will be expected to explain the following in the research proposal:

- Explain how the contractor will interact with the other research contractors to ensure an understanding of the other models and the ability to combine the models.

- Explain how the dependent variable, net present value, will be computed for any year, species, and fishery for each modeling approach.

- Identify each variable that will be used from the inputs and output list explicitly in the model equations.

- List any additional information or data on fisheries that will be required from ADF&G.
- Provided a cost estimate for the various portions of the work and a schedule of activities.
- Identify any additional policy analyses you believe should be analyzed.
- Identify any problems anticipated in coordinating other parts of the benefit-cost analysis.
- Suggest a methodology for using the salmon enhancement cost and production projections from surveys to interpolate marginal costs and production for alternate enhancement scenarios to incorporate into the population and exploitation model.

Cost Estimate

As part of the proposal, the contractor will itemize expected costs for: data collection, subcontracting, programming, and model documentation of statistical results and software operating instructions.

Schedule of Research Activities

Proposals should be submitted by September 27, 1991 and should include a schedule of completion milestones from data collection through programming and model testing. The due date for the final model software and documentation is February 1, 1991. The decision on contract awards will be made by October 4, 1991.

Research Funding Provided

\$10,000

LEGISLATIVE

HISTORY

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INTENTS

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MANAGEMENT

PAPER

The Management of the Alaskan Salmon
Hatchery Commercial Harvest¹

(June, 1991)

by

Harold J. Geiger

Steve McGee²

David M. Gaudet

Larry Peltz²

James A. Brady

Alaska Department of Fish and Game,
Commercial Fisheries Division
P.O. Box 3-2000 Juneau, Alaska. 99802.

¹ Contribution PP-034 of the Alaska Department of Fish and Game, Commercial Fisheries Division.

²Alaska Department of Fish and Game, FRED Division.

Geiger, H.J., S. McGee, D.M. Gaudet, L. Peltz, and J.A. Brady. 1991. The Management of the Alaskan Salmon Hatchery Commercial Harvest. Can. Spec. Publ. Fish. Aquat. Sci.

ABSTRACT: Since 1971, the State of Alaska has allowed the production of Pacific salmon using an ocean ranching system. Traditional users compete to capture the returning fish in a number of different fisheries, while private hatcheries are allowed a special harvest of returning hatchery fish to fund hatchery operations. Fishery managers are asked to maintain the biological health of the wild stocks, economic health of the hatchery system, and conduct orderly fisheries, all while meeting allocation guidelines established by a separate body: the Alaska Board of Fisheries. Alaskan commercial salmon management is learning to exist in an era of increased hatchery production. Examples of management problems from the large-scale hatcheries in Prince William Sound, the mixed-stock chinook troll fishery in Southeast Alaska, and a newer pink salmon hatchery in Southeast Alaska are presented. We found (1) a lack of guiding principles, even after experience with pioneering hatchery programs, and (2) that production-based objectives for the hatcheries are often in conflict with more important fishery goals. We suggest that formal policy be used as a fishery management tool to shape goals and establish guiding principles for hatchery development.

Introduction

Beginning in the early 1970's the State of Alaska began an experiment in the production of Pacific salmon using ocean ranching. This system allowed two classes of hatcheries: one funded and operated by the state, the other a class of private hatcheries which were to share their harvestable surplus with the traditional fishing fleets and sell some of the returning fish to sustain the operation of the hatchery. Below we will describe fisheries management of the large, successful pink salmon hatchery program in Prince William Sound and the smaller chinook salmon hatchery program in Southeast Alaska. To examine how the management system performs in a novel situation, we will also consider a newer pink salmon hatchery in Southeast Alaska. The Alaskan hatchery system has unquestionably produced benefits. Yet we are not writing about those benefits. We wish, foremost, describe our hatchery system and management issues and secondly consider some of the problems hatchery production has caused fishery managers: a group required to solve problems rather than benefit from hatcheries.

Often, explicit *fisheries-based goals and objectives* for the harvest of hatchery fish have not accompanied large-scale enhancement projects. We define goals to be a statement of the ideal of what we want to achieve in the long run. Objectives are measurable intermediate tasks that must be accomplished to reach

the goals. Many hatchery projects have stated goals that are unfocused, like providing "benefits to all citizens." The projects also have stated objectives based on production which may conflict with important unstated fishery goals, such as control of fishing effort on a particular stock.

The management apparatus has not used *policy* until recently as a tool to solve recurrent fishery management problems when hatchery production objectives clash with fishery goals: *policy* being used here to mean a statement of a consistent, sustained, course of action in support of a stated goal. As a result, fisheries managers and hatchery planners are still asking surprisingly basic questions. How will the production from hatcheries be allocated to traditional users? What levels of production will be considered overproduction from hatcheries? How will biological, or even economic, considerations come into the process of determining what overproduction is? How can management information be generated to manage hatchery production in increasingly complex mixed stock fisheries? How will we catch hatchery salmon in traditional fisheries? We now see that management of our hatchery fish will require a better job of coordinating policy and developing common goals among different interests involved in the production, management, and utilization of the hatchery produced salmon.

The hatchery salmon producers

Roppel (1982) traces the beginnings of Alaska hatchery production to 1891 at Karluk on Kodiak Island. The modern hatchery era in Alaska began in 1971, when the Legislature and the Governor created the Fisheries Rehabilitation, Enhancement and Development (FRED) Division within the Alaska Department of Fish and Game. The harvest of salmon was at an all-time low, and the development of an enhancement program was supported through the passage of voter-approved bond issues in the amount of \$63.3 million for the construction of hatchery facilities. FRED was given broad statutory authority by the Legislature to "... through rehabilitation, enhancement, and development, do all things necessary to insure perpetual and increasing production and use of the food resources of Alaska waters and continental shelf area ..." (Alaskan Statute 16.05.092). In the last 20 years, the FRED program has constructed over 20 hatcheries, 19 of which are currently in operation. Since 1972, the State of Alaska has invested \$81 million in capital construction of hatchery facilities, and another \$170 million for operation and support of these facilities.

In 1974, the Alaska Legislature created a second hatchery program for the State of Alaska. It authorized the Alaska Department of Fish and Game to issue permits to private nonprofit corporations for the construction and operation of hatcheries for ocean ranching

of salmon. The intent of the private nonprofit hatchery program was to allow the private ownership of salmon hatcheries that would contribute to the state's existing fisheries but at the same time be self-supporting. The cost of construction and operation of these facilities was to be derived from the sale of a portion of the returning fish by the hatchery operator. The private nonprofit hatchery program was intended to operate "... without adversely affecting natural stocks of fish in the state and under a policy of management which allows reasonable segregation of returning hatchery-reared salmon from naturally occurring stocks," (Section 1, Ch.111, Session Laws of Alaska 1974). Fish released from private nonprofit hatcheries were to be "... available to the people for common use and are subject to regulation under applicable law in the same way as fish occurring in their natural state until they return to the specific location designated by the department for harvest by the hatchery operator," (Alaskan Statute 16.10.440).

Two types of private entities were recognized in the enabling legislation: regional aquaculture associations, formed of commercial fishermen and other salmon users in a designated region of the state; and local, nonprofit, non-association corporations. All commercial fishing permit holders in a region automatically become members of the regional aquaculture association. Thirty private nonprofit hatchery permits have been issued since the inception of the program, including three for the operation of

state-owned facilities under special contract with the FRED Division. Three permits have been given up or rescinded. Twenty-one of the permitted hatcheries are in operation and all of them had returns of adult salmon in 1990.

Funding for the private hatcheries is obtained through two mechanisms: both types of private hatcheries may sell a portion of the returning fish; and members of the regional association may vote to assess themselves a one, two or three percent tax on the ex-vessel value of the salmon harvested in their region. Since 1976, over \$42 million has been generated through assessments and returned to aquaculture associations via contract with the state.

In 1976 and 1977, the Alaska State Legislature modified and expanded the private nonprofit program to include comprehensive salmon planning and a revolving aquaculture loan fund. The planning involved fishery managers, FRED Division, and the regional associations. Early in the development of the hatchery program, comprehensive salmon plans were developed to anticipate and solve problems resulting from salmon hatcheries. An early mistake was a decision not to include allocation of the hatchery produced fish to traditional users or include fisheries management issues directly in the planning process.

Recent reductions in state budgets have resulted in a move to transfer operational responsibility for state-owned hatcheries to

private operators in cases where the hatcheries primarily benefit the commercial harvesters. The only mechanism for funding state operated hatcheries is annual requests for public money from the state legislature. The state-operated hatcheries must compete through the budget process for funding with schools, social services, and other public needs, while the private hatchery operators can fund the operation of the hatcheries through sale of a portion of the returning fish. The operations at three state hatcheries have been fully contracted to the respective regional aquaculture association for the region in which they are located. Partial operation or funding for part or all operations of three other facilities have also been supplied by regional aquaculture associations.

Currently there are eight regional associations and seven non-regional associations. These private corporations currently operate 23 hatcheries around Alaska, and reported releasing 925 million juvenile salmon in 1990. In 1990 the FRED Division operated 15 hatcheries and reported releasing 231 million juvenile salmon. Figure 1 shows the location of these hatcheries.

The fisheries management

The commercial fisheries management apparatus consists of the Alaska Board of Fisheries, and the Alaska Department of Fish and Game, Commercial Fisheries Division. Enforcement of fishing

regulations is provided by a separate police force within the Alaska Department of Public Safety.

The Board of Fisheries is a group of seven interested citizens, usually fishermen, appointed by the governor of Alaska for a three year term. This board makes allocation decisions and establishes specific fishing regulations. In the spring, citizens and interested organizations can propose virtually any regulation for those fisheries that the Board will be considering the following fall. At the present time the Board of Fisheries considers each specific salmon fishery once every three years. The Board process is expensive, slow, tedious, yet thorough. Days of public testimony, testimony by local advisory groups, lengthy Department of Fish and Game staff reports, and public debate among the Board members lead up to a decision on a proposal relating to the management of the fishery. Because the members currently appointed for three years they may consider the issues and make decisions on each fishery only once during their term.

The Alaska Department of Fish and Game is responsible for taking actions that ensure conservation, and for following the directions handed down by the Alaskan Board of Fisheries. Since 1985, managers in Southeast Alaska, and on the Yukon River, have also been required to meet objectives set down by the Pacific Salmon Commission, under the authority of the US-Canada Salmon Treaty. Actual in-season management is decentralized, with the day-to-day

management decisions delegated to an on-site manager in one of 20 local area offices around the state. These managers are familiar with the local situations and are given broad discretion to close and open fisheries to achieve fixed escapement goals and the allocative balance specified by the Board of Fisheries. Fisheries are opened or closed by issuing Emergency Orders (Alaskan Statute 16.05.060). To get the information for opening and closing decisions the managers operate an extensive data gathering apparatus during the summer and fall: monitoring escapement, fishery performance, stock identification information, and harvest and processing progress. Little surplus is unharvested, yet escapement goals are usually met because managers respond quickly to changing fishery situations. The essence and advantage of this kind of in-season management is the ability to process large amounts of information quickly, and local, unincumbered control over fishing effort.

The fishing fleets

There are four types of gear used principally in the commercial harvest of Alaskan salmon: purse seine, drift gillnet, set gillnet, and troll. Fishtraps were outlawed following statehood in 1959, with the single exception of the Metlakatla Indian Reserve in Southeast Alaska. Fish wheels are used on the Yukon River, and beach sein are also allowed in some areas. Salmon are also harvested for personal use by sport and subsistence users. The

commercial salmon fisheries are divided into distinct geographic management areas, with one or more of the legal gear types operating in the same area. These areas may in turn be divided into subareas in which the legal gear types may be separated or allowed to fish together.

All commercial harvests of salmon in Alaska operate under a limited entry system. The state was divided into 26 species-gear-area fisheries for limited entry implementation. Limited entry of the first 19 fisheries began in 1973, and the last commercial salmon fisheries were limited in 1979. The number of permits allowed in a fishery was determined at the time the Alaskan salmon fishery was limited and was based on the historic use of that fishery. Of the 12,909 permits issued 11,343 are transferable, and can be sold. Permit prices have generally risen over the years with the median price of a permit climbing to over \$150,000 in many fisheries by 1988; the median price was over \$200,000 in some fisheries by that time (Denneford and Cohen 1989).

The Two Case Studies

Pink salmon hatchery production in Prince William Sound

The FRED Division and two private aquaculture corporations, the Prince William Sound Aquaculture Corporation, or PWSAC, and the

Valdez Fisheries Development Association, or VFDA, own salmon hatcheries in Prince William Sound. PWSAC is the Regional Association for commercial fishermen in the Prince William Sound area. VFDA is a private nonprofit non-association corporation. Currently the FRED Division has contracted its pink salmon hatchery in Prince William Sound to PWSAC.

The production of juvenile pink salmon from private nonprofit and state hatcheries in Prince William Sound for 1977 to 1990 is presented in Figure 2, based on the estimates of Eggers et al. (1991). During this time, releases of fry have increased from approximately 1 million (broodyear 1976) to 518.1 million (broodyear 1989). The estimated commercial harvest of pink salmon in Prince William Sound over time is presented in Figure 3. The estimated total return to hatcheries has increased from 0.1 million fish in 1977 to 33.1 million fish in 1990. The estimated harvests in traditional fisheries has increased from nearly 0 in 1977 to 25.2 million in 1990. Hatchery-produced pink salmon have contributed up to 98% of the total pink harvest in Prince William Sound in recent years, when wild stock returns have been low.

Prince William Sound commercial salmon harvest areas (see Figure 4) were established in 1964, and correspond to the geographical distribution of natural stocks. Within Prince William Sound, purse seine, drift gillnet, and set gillnet gear operators compete for the returning salmon. Fish heading throughout Prince William Sound

generally pass through purse seine districts first: the Eastern, Northern, Northwestern, Southwestern, Montague, and Southeastern districts. Drift gillnet gear is allowed in Copper River and Bering River districts, which are actually outside of Prince William Sound, and Unakwik, Coghill, and Eshamy districts. Set gillnets and drift gillnets fish together in Eshamy District, and drift gillnets and purse seines fish together in Coghill and Unakwik districts.

Wild pink salmon production is spread throughout the Prince William Sound, with salmon spawning in over 1,100 documented streams. Escapement performance is monitored throughout the season by weekly aerial surveys of approximately 200 key, index streams. Based on escapement observations, wild stock strength determines the fishing time that may be permitted in the general fishing districts of the sound.

Hatchery stocks utilize the same entrance areas and migratory passages as wild fish. Originally "early" and "late" broodstocks were selected for the Prince William Sound hatcheries to minimize overlap with wild stocks. Even so, considerable overlap in timing exists. Hatchery run strength is assessed in-season by daily tracking of harvest performance near the hatcheries and by monitoring sex ratios. Strong hatchery returns migrating through these areas may incorrectly give managers the impression of strength in the wild stock components. Overexploitation of wild

stocks in the entrance areas (i.e. Southwest District where stocks are highly mixed) can result in escapement shortfalls which cannot be corrected by full season closures. This happened in the Northwest areas of Prince William Sound in 1990 (Brady et al. 1991).

When there is a large wild stock harvestable surplus, fishing is conducted in all waters of Prince William Sound, and a large portion of the hatchery harvest is taken distant from the hatcheries. If the wild stock component is large and the hatchery run is weak, exploitation of hatchery stocks in the mixing areas (when all Prince William Sound districts are open) may exceed the level that hatchery stocks can withstand. Hence, broodstock and cost recovery goals (economic escapement) will not be realized. This situation occurred in Prince William Sound in 1984 and 1985 when the hatchery stock was still developing. In 1984, PWSAC harvested approximately 300,000 sales fish, falling well short of the revenue goal of 1.3 million fish.

Following this revenue shortfall, PWSAC petitioned the Alaska Board of Fisheries to establish the subdistrict outside of the existing Armond F. Koerning Hatchery subdistrict to be used to protect hatchery returns. PWSAC successfully convinced fishing groups that although closure of this area would displace fishermen from traditional fishing sites in a highly lucrative area, all fish not harvested could be taken later in other areas because there was no

escapement inside the proposed subdistrict.

The Board of Fisheries adopted management plans for corporate escapement goals after receiving public testimony by fishermen supporting the plan. The management plan (1) established a subdistrict to be used to protect returning hatchery fish for both broodstock and revenue, and (2) directed the Department of Fish and Game to manage to assist hatchery operators at the Armond F. Koerning Hatchery in achieving corporate (economic) escapement goals. Similar regulatory management plans now have been established for the Esther and Solomon Gulch Hatcheries. Management for corporate escapement (published revenue goals) for all salmon hatcheries in Prince William Sound is now assigned importance equal to that assigned biological escapement of natural stocks.

In response to the great potential and actual management error separating hatchery and wild run strengths, half-length coded wire tag studies were chosen to assess the hatchery stock component in the general fishing districts to track management performance in these mixing areas. This method has been shown to be a workable means of assessing the hatchery component of the harvest from the mixing areas, post-season in Prince William Sound (Peltz and Miller 1990; Peltz and Geiger 1990; Geiger and Sharr 1990). Yet, in spite the potential for loss to both the wild stocks and the hatcheries from management's ignorance about the mixing rates, the

responsibility for funding the coded wire tag studies has never been established. PWSAC provided funding and support for pilot coded wire tag studies which began in 1986. In 1988 the Department of Fish and Game requested that PWSAC continue to fund these studies entirely, as no new public resources were available to fund the management of new hatchery fish, without redirecting funds away from wild stock management. PWSAC maintained that the management was the State's responsibility and resisted funding tag recoveries. Within the Department of Fish and Game some elements sided with PWSAC. PWSAC has not been able to budget for these studies as it was not clear that these studies were a necessary use of their resources. This issue strained relations between PWSAC and the Alaska Department of Fish and Game in 1988 and 1989. The issue has still not been resolved, merely postponed by the Exxon Valdez oil spill; studies of the damage from the oil spill created another source of funding for the coded wire tag program in the short term.

The success of the hatcheries has created another important issue: that of who will benefit. Limited entry, and the high value of the harvest has led to strong gear groups, or coalitions of fishermen using the same fishing gear, throughout Alaska, and in Prince William Sound in particular. The majority of hatchery fish production up to recent times has been pink salmon easily caught in the seine fishery. In the last few years programs designed to produce salmon for the gillnet fleet have begun to produce sockeye and chum salmon in significant returns. However, the structure of

existing fisheries has resulted in interception by the seine fleet of some of the fish which were produced for the gillnet fleet.

In 1988 when the allocation issues were finally presented to the Alaska Board of Fisheries; the proposals were piecemeal short-term solutions, presented without any context. The Board of Fisheries recognized a lack of precedent, and a lack of understanding of the years of planning and undocumented history of agreements between the user groups and hatchery operators. The Board of Fisheries then directed the hatchery operator, PWSAC, to come up with a solution to the problem by the next Board meeting in 1991. PWSAC formed an allocation task force composed of salmon users to develop the policy. The task force decided that the guiding principle should be that the historic ex-vessel value split should be maintained through hatchery production. The historic records showed the ex-vessel value of salmon was approximately equal between the gillnet and seine fleets. One important principle was then established: to maintain an equal share in benefits between the two commercial user groups in Prince William Sound (Prince William Sound Aquaculture Corporation 1990). Eventually PWSAC convinced all gear groups to endorse a modified plan which was adopted unanimously by the Board of Fisheries at their 1991 meeting.

PWSAC is currently working on a production plan, with allocation explicitly recognized as a part of the planning. The plan also

gives some hint of future management challenges. PWSAC is currently planning new production facilities to provide an additional 22.0 million adult pink salmon (from a document titled Production Plan from the Prince William Sound Aquaculture Corporation, Cordova, Alaska, dated January 27, 1991).

The Prince William Sound experience began with increased hatchery production superimposed on wild production through the 1980's until hatchery production surpassed wild stock production. As the hatchery production grew, the dominate fisheries issues were how protect the economic health of the corporation, and how the surplus was to be allocated to traditional users. These latter two issues have consumed most of the off-season management efforts, and have largely been dealt with. In-season fisheries management continued much as it had prior to the hatcheries without any new tools except the ability to move the fishing fleets into terminal areas to protect weak stocks. Yet the hatcheries have led to a highly capitalized fleet. Capitalization has contributed to a dramatic increase in fleet efficiency. Changes in both the stock composition and the increases in fleet efficiency are now complicating management. Coded wire tags were introduced for the 1987 season, but information from this technique has only been available post-season, and no ongoing marking program has been established. Looking ahead, the upcoming issues will be how to (1) reduce congestion and improve product quality -- which will require dispersing the seine fleet throughout mixing areas; (2) how to cope

with increased pink salmon production -- which could require congesting the fleet into terminal areas, and may require relaxing genetic standards, to disperse hatchery releases in order to disperse the fleet; and (3) how to improve in-season management. Quality concerns and the general dislike for congested fisheries will lead to an even greater push on the part of the fleet and industry to conduct a majority of the harvest in mixed stock areas.

Chinook hatchery salmon production in Southeast Alaska

Catches of chinook salmon in Southeast Alaska peaked in the 1930's at approximately 600,000 per year (Figure 5). Total catch declined to about 280,000 in the 1960's, rose slightly higher in the 1970's and declined to its lowest level during the 1980's. The low total catch during the 1980's has been primarily due to ceilings placed upon the harvest by the North Pacific Fishery Management Council through 1985 and the Alaska Board of Fisheries and the Pacific Salmon Commission since that time. The abundance of wild chinook salmon declined drastically since the first half of the century because of overfishing and the loss of freshwater spawning and rearing habitat, particularly in the Pacific Northwest where construction of dams drastically reduced salmon production.

Native chinook and coho salmon stocks in Southeast Alaska were also depressed during the 1970's, and hatcheries seemed to be a logical way to restore harvests to prior levels. Beginning in the early to

mid 1970's, the State of Alaska embarked upon a program to produce chinook and coho salmon in Southeast through construction of both state and regional aquaculture facilities. The abundance of chinook salmon continued to decline and by the early 1980's managers used closures of the troll fishery during the spring to protect native Southeast Alaskan chinook salmon. During the 1980's, chinook salmon became the focus of discussion in pre-U.S./Canada Treaty negotiations (Fraidenburg and Lincoln 1985). Research indicated that the majority of the chinook salmon caught in the Southeast Alaska troll fishery were from systems in British Columbia, Washington and Oregon (Van Alen 1988). The Southeast Alaska chinook salmon catch was placed under a ceiling in order to return more chinook salmon to these systems. To offset the loss of chinook salmon resulting from the ceiling, losses primarily to the troll fishery, an initial plan was adopted to produce 100,000 harvestable chinook salmon adults for the troll fishery. This plan was not well documented but traces of the thinking of the time can be found in various unpublished documents (e.g., 1990 Annex: Chinook Salmon Plan for Southeast Alaska, July 1990; available from the Alaska Department of Fish and Game, Juneau, Alaska).

As a part of the treaty, chinook salmon produced in Alaskan hatcheries were allowed to be harvested without a quota provided the State could estimate the number in-season. This add-on, as it was called, was calculated through an intensive catch sampling program for coded wire tags. The recovered coded wire tags are

numerically expanded to account for the percentage of the catch sampled and the tagging ratio. Corrections are also made for missing tags, lost heads and other factors (Clark and Bernard 1987).

The summer fishery results in the bulk of the chinook salmon harvest, but the summer fishery has taken the lowest proportion of Alaskan hatchery produced chinook salmon. This proportion has been between 3-5% through the 1980's, but in 1990 it was at the historical high of approximately 7%. Throughout the late 1980's the Alaskan produced hatchery fish were not being harvested in the troll fishery, primarily because no fishery was taking place in the spring when mature adults were returning. To remedy this, new fisheries were established in June: the Experimental Fisheries, as they were called. These fisheries were located in areas along the suspected migratory path of hatchery chinook salmon and in areas adjacent to the facilities themselves.

The Experimental Fisheries were not effective; the total number of fish caught was very small. Recently another type of fishery, the Hatchery Access Fishery, was established. To comply with the US-Canada treaty and to increase the proportion of hatchery chinook salmon, the fishery operated only within the inside waters of Southeast Alaska. In 1989 and 1990, the fishery operated three days in early June and three days in late June. It harvested 24,000 and 31,000 chinook salmon with an Alaskan hatchery

proportion of 14% and 17% in 1989 and 1990, respectively.

The hatchery add-on has resulted in more expensive management. However, because the add-on calls for more expensive and timely improvements of many existing management tasks that will be performed anyway, it is hard estimate the additional expense due to hatchery production. To allow the maximum number of chinook salmon to be harvested in Alaska, salmon heads suspected of containing coded wire tags are shipped by priority air freight and read, processed, and analyzed at the peak-load time for laboratory and analytical resources.

In 1980 to 1989 the average estimated Alaska catch of hatchery produced chinook salmon was only 13,400 fish for all fishing gear types. In 1990, this catch rose to approximately 55,000. The hatchery production is increasing and we expect large returns in the next few years. However, the troll fleet, which was expected to harvest 100,000 Alaskan hatchery chinook salmon, is currently harvesting only about half of the total hatchery chinook salmon harvest. At present we don't know if it is possible for trollers to improve their ability to target on hatchery chinook salmon, but it seems improvements will come from greater congestion. Can the production based objective of harvesting 100,000 chinook salmon by the troll fleet be met? Perhaps a much, much larger hatchery production, a considerably more expensive management, and congesting the troll fleet into small terminal areas might be

required to reach the production (harvest?) objective of 100,000 chinook salmon, if it is reachable at all.

A novel situation

As new pink salmon hatcheries in Alaska begin to reach production capacity, hatchery operators and some fishery managers have assumed that the large-scale pink salmon program in Prince William Sound established the guiding principles and precedents for pink salmon hatcheries in the state. Fisheries managers and hatchery operators in Prince William were forced to face the issues of allocation of hatchery production to traditional users; they successfully persuaded the Board of Fisheries to adopt regulations charging the fisheries managers to attempt to achieve broodstock as well economic escapement needs; and they successfully resisted attempts by the Alaska Department of Fish and Game to require the funding of management information studies. The assumption that the Prince William Sound experience has led the way for management of hatchery produced pink salmon was recently put to the test in Southeast Alaska.

In 1989, poor returns to a private nonprofit hatchery in Gastineau Channel in Juneau resulted in charges that management allowed the overharvest of the hatchery stocks in a mixed stock fishery. This hatchery is operated by Douglas Island Pink and Chum Inc., or DIPAC as it is commonly known, an operation that is not a regional

association. Because no mechanism was in place to identify the hatchery stocks, a debate between the Alaska Department of Fish and Game managers and the hatchery operators has been inconclusive. The hatchery operators publicly and loudly charged that management had been negligent. The credibility of management, rightly or wrongly, was damaged in the public mind, and the response to the charges absorbed considerable management resources. But most importantly, without a marking program in place, no definitive conclusions about the management actions were attainable, and no corrective action was possible.

DIPAC has voluntarily agreed to tag pink salmon from time to time, but funds for tag recovery, processing, and analysis have never been secured. As in Prince William Sound, it has never been established who is responsible for providing this funding. At present no formal agreement exists between the Alaska Department of Fish and Game and DIPAC on fish marking studies, and the Alaska Department of Fish and Game has not yet taken a policy stand as to what it requires of DIPAC in the way of these kinds of studies.

In 1990, DIPAC petitioned the Board of Fisheries to "... permit the department in consultation with the hatchery operator to manage net fisheries in [disputed mixing areas] to achieve the corporate escapement goals for the Gastineau and Sheep Creek hatchery facilities." DIPAC used wording identical to wording that the Board of Fisheries adopted in Prince William Sound, except for

corporate names and specific locations. The Board of Fisheries rejected this proposal after hearing considerable negative public testimony. Fishermen were fearful that their fisheries could be closed by a private corporation without any apparent safeguards. Indeed there was no reason to believe hatchery fish could be differentially managed in the area under consideration, without information on stock mixing rates.

DIPAC helped show that the situation with regard to the Department of Fish and Game's responsibilities to manage for economic escapement is more confusing than we first realized. In 1990, after eighteen years of hatchery development, in the opinion of Alaska's attorney general, the Department of Fish and Game did have the authority to manage the hatcheries for broodstock, but *did not necessarily have the authority to manage for economic escapement to the private hatcheries* (memorandum from Assistant Attorney General Stephen M. White to the Commissioner of the Alaska Department of Fish and Game dated August, 1990). The DIPAC experience has shown how unprepared the fisheries management is to deal with a novel situation because policies and guiding principles seem to have failed.

Discussion

In reviewing the management of the Alaska commercial salmon harvests from hatcheries we found ourselves wondering why some of

these recurrent fisheries problems, like harvest allocation or agreement on funding hatchery tagging studies, resist permanent, statewide solutions in spite of considerable effort by otherwise effective managers. The immediate cause is that the hatchery operations are new. The system has not yet had time for guiding principles to establish themselves in an evolutionary fashion. But, guiding principles could have been established by deliberate planned policy statements from the management apparatus. Currently we are rethinking the goals for the hatcheries in more specific terms, and proposing policy to coordinate behavior to reach these goals.

Recently Barber and Taylor (1990) considered concepts of goals, objectives, and values from the business management literature and speculated on their utility in fisheries management. Barber and Taylor point out that rarely in fisheries management are specific goals stated. They go on to point out that goals that are stated are often unspecific, without measurable objectives that help to define the goals. In their words, this lack of specificity allows goals that are "good for public relations and political gamesmanship, but are difficult to use in effective rational management."

The comprehensive planning process that began early in the development of Alaska's hatchery program was put in place to develop specific goals and objectives. Oddly enough the plans --

by design -- were not to address the issue of allocation of hatchery fish or the issues of salmon management. The plans do contain unspecific goals, such as "Provide as many fish as possible to each user group," and "Benefit all Alaskans through opportunities for commercial, sport, and subsistence fishing." The plans also contain very specific objectives, such as "...increase the average harvest and gross income of [Prince William Sound] purse seine permit holders from the base level of \$21.2 million to \$32.9 million by the year 2002," or "increase the average annual chinook harvest [in Southeast Alaska] to 537,000 by the year 2000," (from the Prince William Sound - Copper River, and Southeast Alaska comprehensive salmon plans respectively).

The plans say nothing about mechanics of the fishery management. Statements about management never get much more specific than "...managing agencies and the fishermen should work together to find the best solutions currently available and to allow the use of limited data to reverse declines," (from the Southeast Alaska comprehensive salmon plan). Perhaps this lack of specifics was an attempt by the managers to maintain flexibility; but today many of the production-based objectives are increasingly in conflict with fishery goals including the preservation of the genetic integrity of wild stocks, the reduction of fishing effort on specific wild stocks, and the maintenance of uncongested fisheries.

We agree with Royce (1989), that Alaska's system of wild stock salmon management has worked well by comparison. The Board of Fisheries acts *pragmatically and decisively* on specific regulatory proposals that are *proposed by someone else* after considering an enormous amount of public input. Local managers use *judgement and individual initiative* to react to dynamic situations in the fishery. Since statehood, this flexibility has resulted in increasingly effective management, which has resulted in larger yields (Eggers *in press*). While a single explicit statement of the goal of salmon management may not exist, most if not all involved in the salmon industry have a similar idea of what this goal is: to support a sustainable salmon fishing industry, providing for orderly harvests, without loss of yield from overharvest of any stock.

Paradoxically the management system's strengths are at the heart of why the management apparatus has so much trouble with statewide fisheries policy relating to hatcheries. Processors, fishery managers, hatchery operators, harvesters, environmental organizations, and others have unstated goals for the hatcheries which range from "make fish!" to subverting the success of the hatcheries in any way possible. Unfortunately, the pragmatic, dispersed management decision making machinery has not been able to behave consistently without a shared common goal.

We think of policy as statements of a sustained future course of

action. They are effective if they correctly state the course of action. They are useful if they shape and control the behavior of various entities toward a common goal, particularly if the entities would otherwise behave in an uncoordinated fashion. Since the mid 1970's many government officials, including the various commissioners, the ultimate spokesmen for the Alaska Department of Fish and Game, have issued notes, letters, memoranda, and reports which claimed to be policy. Yet, we could find no single collection of these policy statements. Many have not survived in any physical form. Some of the policy statements that have been put forward have been designed to be, foremost, unoffensive. These have accomplished little. Other policy statements have been so specific that they solved or attempted to solve only a single very narrow problem, such as requiring a specific number of tags to be applied in a particular hatchery tagging study. In other cases the steps needed to establish a policy and the necessary regulations were ignored or not coordinated among all interests and parties. Glaring examples include the lack of an established management policy about economic escapement for the private nonprofit hatcheries, and the lack of a mechanism for allocation issues to be settled in an orderly fashion. Policy has generally failed in the past because it was written to sound good, not to direct behavior toward the realization of specific compatible goals.

Under our current system in Alaska, commercial salmon production can only come through new or existing fisheries. Goals for a

hatchery project need to be stated in terms of what is hoped to be achieved in the fishery. The fisheries issues of increasing or reducing fishing effort, allocation of harvest, dispersing fishing effort, protection of weak stocks and so forth are correctly the raw materials of goals for hatcheries. Fishery managers and hatchery planners are currently working on articulating policies on overproduction, the responsibility for the cost of management of hatchery production in existing fisheries, and harvest and escapement strategies for wild and hatchery stocks as a way to shape common goals, and establish consistent expectations of management. In the 1970's and 1980's hatchery production and fisheries management were incorrectly managed separately in Alaska. In the 1990's the challenge for fishery managers and hatchery planners is to use the tools of goals, objectives, and policies to define how Alaskan hatchery production will be used as a management tool in existing salmon fisheries.

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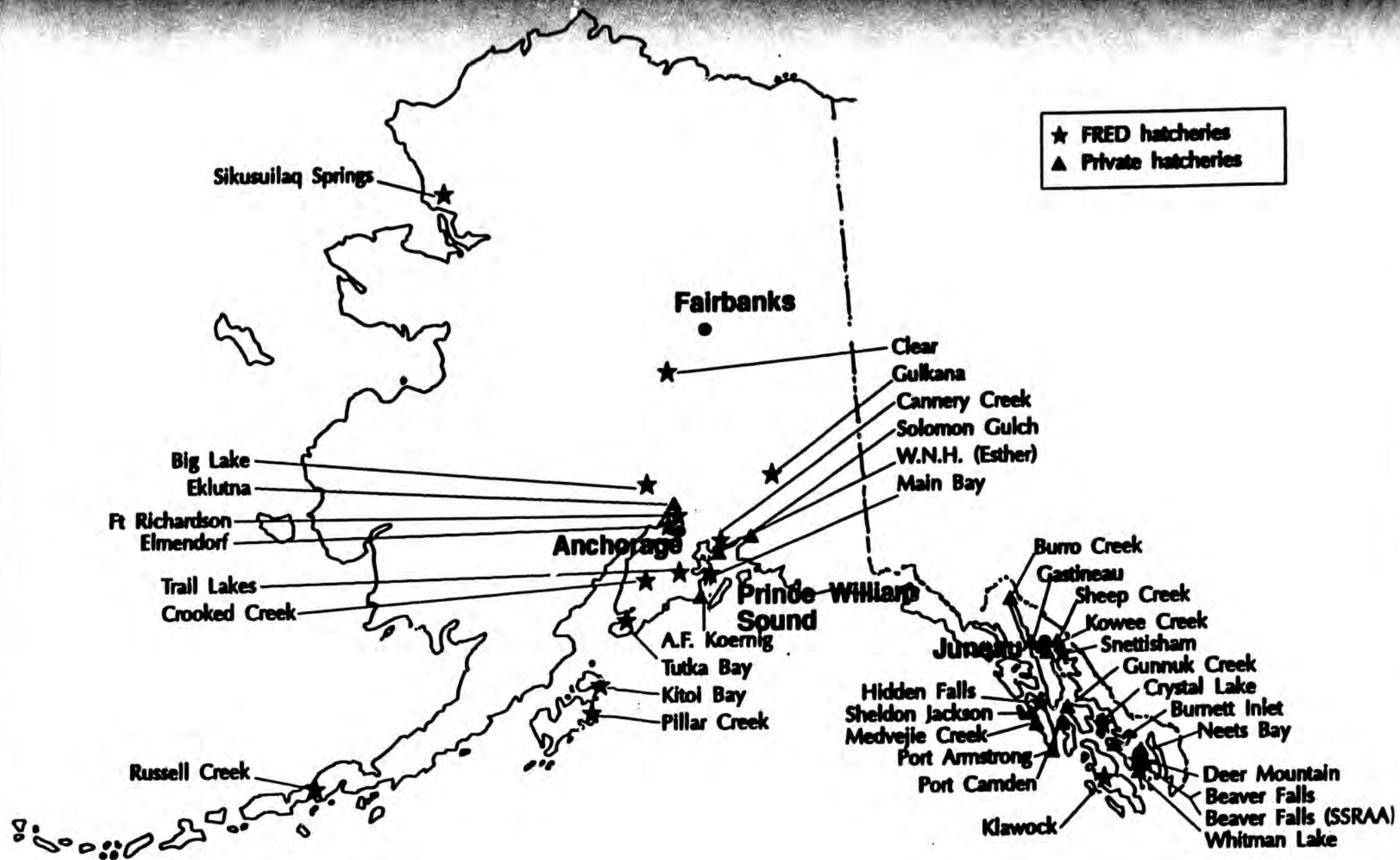
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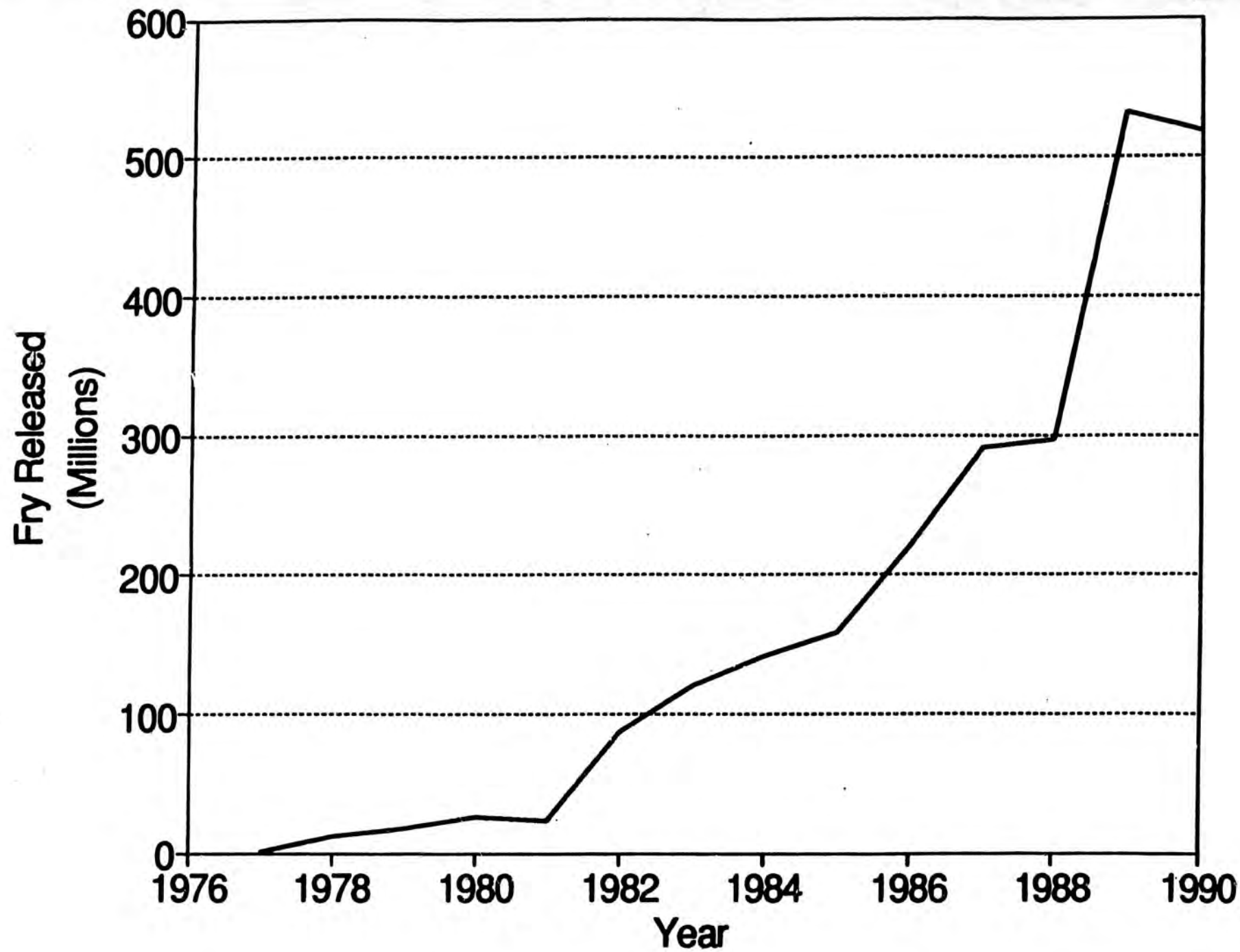
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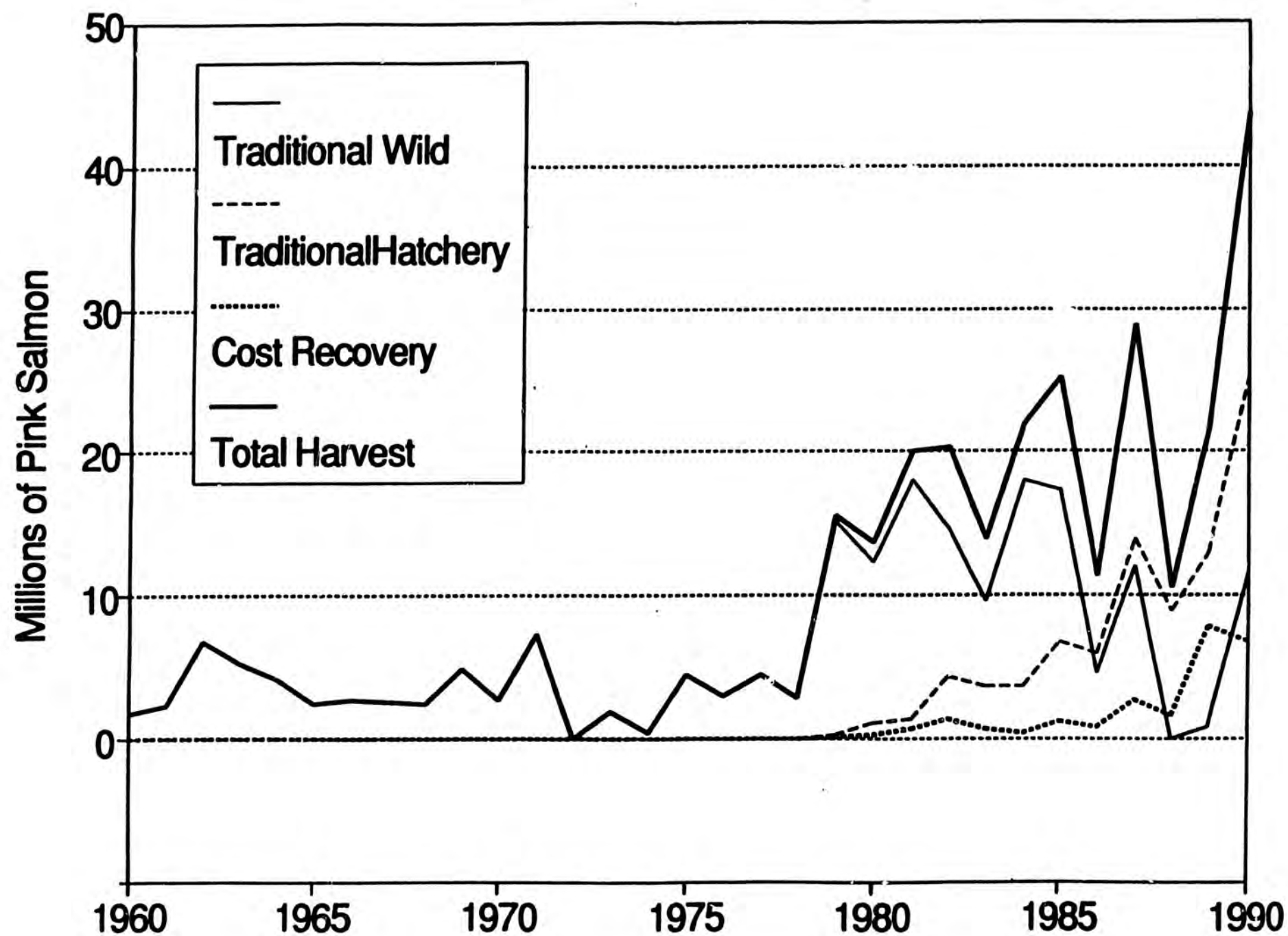
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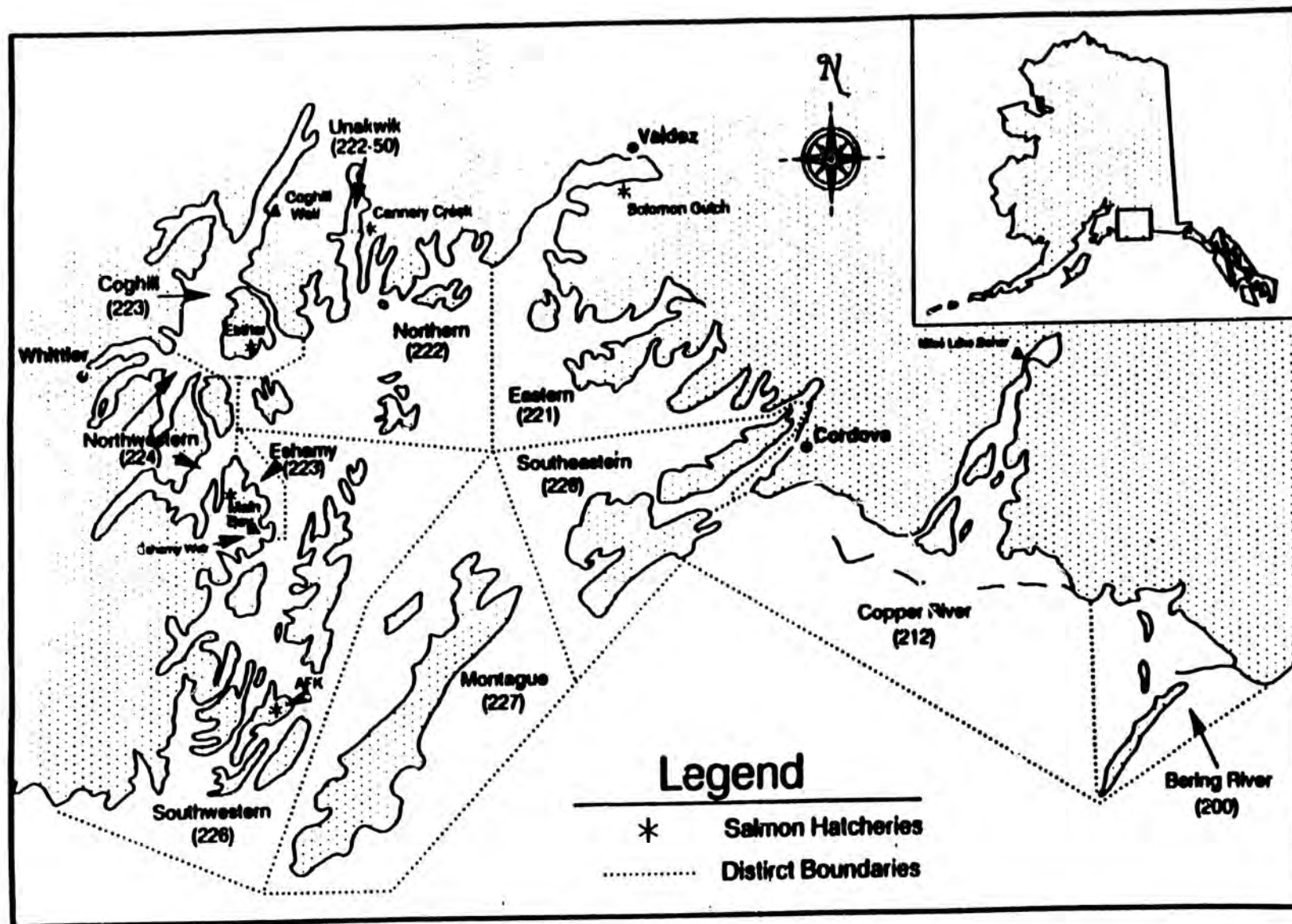
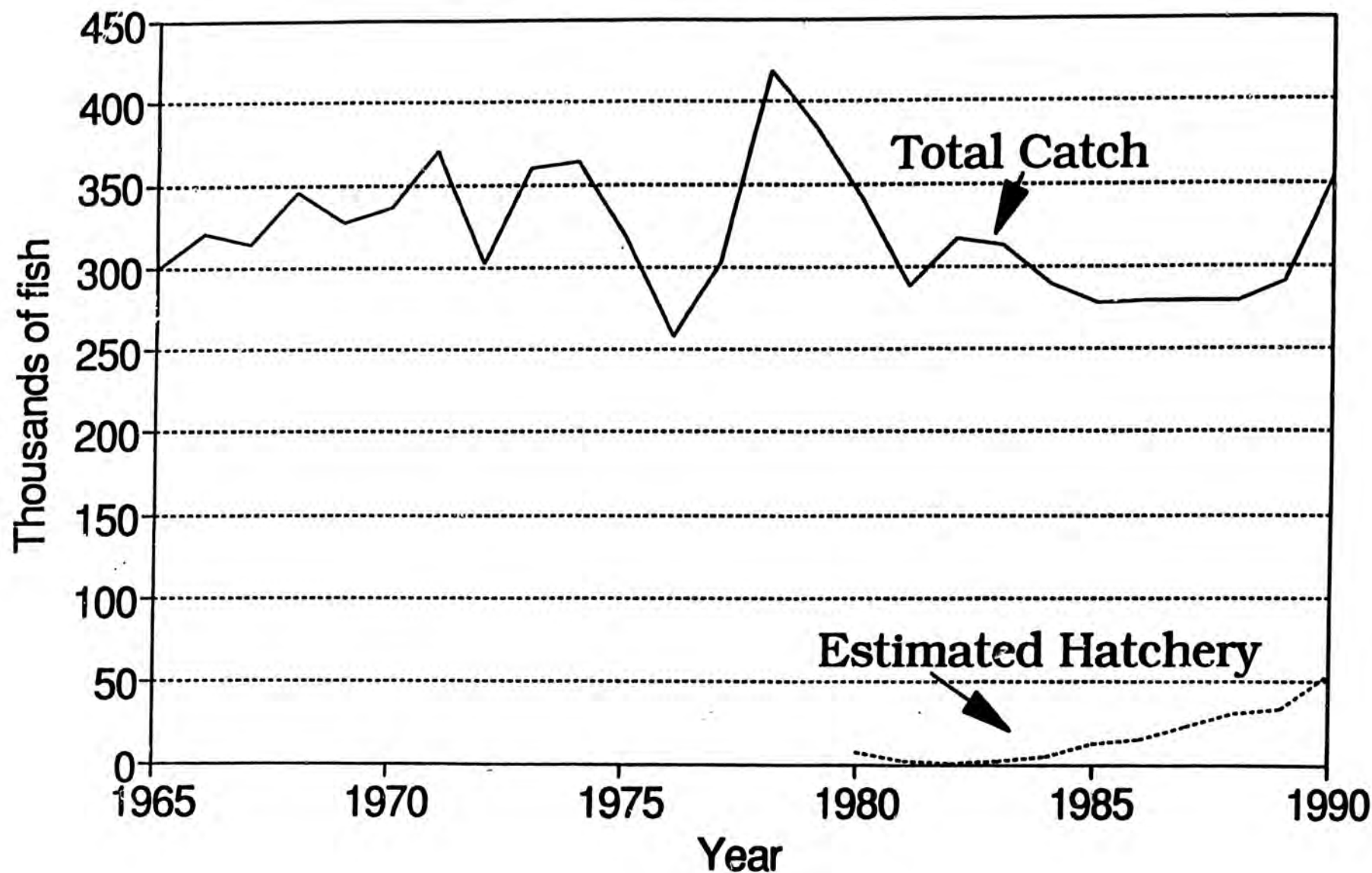


Figure 1. Map of Prince William Sound showing commercial fishing districts and hatchery locations.

S.E. Alaska Chinook Harvest

(all gears combined)



GENETICS / BIOLOGY

GOVERNOR'S
SALMON
STRATEGY
TASK
FORCE

Agenda
Salmon Strategy Task Force
Frontier Building, Governor's Conference Room
Anchorage Alaska, Aug 29 1991

- 9:00 AM Introduction of members
- 9:15 AM Commissioner Olds (charge to the group)
- 9:20 AM Commissioner Rosier - Overview of the Problems and Issues
Occasioning the Appointment of the Task Force
- 9:30 AM Commissioner Olds
Objectives of meeting
Define purpose and scope for task force
Review written input to date
Establish critical issues and priorities
Identify resources
Assign committees and staff to do research
Establish schedule and decide on next meeting
Purpose, Problem Statement
Discussion - Appendix A
- 10:15 AM Break
- 10:30 AM **Identify Critical Issues & Scope** - Appendix B
Production
Harvesting
Processing
Marketing
Finance
Other
- NOON Lunch Break
- 1:30 PM **Resources**
Economic research/future trends - requires economic
analysis, U of A? Use interim hatchery committee for
some?
Marketing strategy development and analysis - advisory
group?
Costs of production - industry advisory group, CFEC?
Policy analysis - advisory group?
Quality - ASMI?
Development policy and infrastructure - advisory group?
Legal analysis - ongoing in AG's office, drop?
- 3:00 PM Break
- 3:15 PM **Assignments and Calendar**
- 4:30 PM Adjourn

PWS working group - Rosier -

Legal Resources - statutes

- Comments on fed + state anti-trust laws prevent fishermen as producers to act as monopoly.
- summary on natl fish + marketing act!
-

~~marketing~~ -

Bob Van Brocklin - mayrag Ordover

Sept 5, 6, 7 - Kodiak meeting

Information Base *

- marketing studies

- production report ** of AK fish.

•

~~review~~ then MAP

cost of harvesting

* distributional benefits

- last year's salmon conf
BNA
salmon marketing
summary of mtg.
check with Ed Beine.

1)

Rosier - production
Payton - harvesting + processing
Waldrop - mtg.
Crane - finance
Moley - legal

Addl. Resources
product diversification
marketplace analysis.

2) prioritize - top 2 issues within each category

4 meetings: Aug 29
Oct 7

Nov 1 or 6

Nov 26

INVENTORY OF SUGGESTIONS REGARDING SALMON STRATEGY FOR
ALASKA
THE GOVERNOR'S TASK FORCE

1. PURPOSE AND FOCUS

Of the approximately 67 surveys returned, all agreed with your statement that the purpose of the task force should be to recommend a production, harvesting, processing and marketing strategy for the Alaska salmon industry, which will maximize the economic return to the State, its fishermen, and processors. We also need to start marketing salmon domestically.

2. SCOPE AND STUDY

One of the recommendations that a number of the surveys suggested was that one of the goals of the task force should be to review Alaska harbor and port facilities improvement and development needs. A comprehensive marketing plan should be developed (ie; what role should ASMI play in this new challenge). In this marketing plan we need to diversify and develop new markets. The diminishing role of Alaska's salmon production in relation to the world production of salmon needs a careful exploration together with an analysis of the factors governing prices in the world market.

3. CRITICAL ISSUES:

1. The main issue seems to be establishing a marketing strategy to promote Alaskan salmon and also establishing alternative markets. Representative Bert Sharp suggested that the focus of ASMI's marketing change from general "Alaskan Seafood" to marketing particular products, such as an ad campaign in the San Francisco area selling Alaskan Halibut steaks, or canned salmon in the mid-west. Another suggestion was to establish regional marketing associations in Alaska.
2. Resolve the problem of lack of freezer and cold storage facilities.
3. Identifying a market strategy for promoting recreational salmon markets.
4. Change our processing techniques to produce what the consumer wants.
5. Identify what Alaska's hatchery and natural run production levels should be for each salmon species to match the world markets. Is there a consistent range of production that is achievable?
6. What can be done to provide some stability in the ex-vessel price of salmon? Is price averaging a realistic option?
7. What are the possible new product forms for Alaska salmon? What must be done to secure a market niche for these products?

8. In some areas of low volume, a permit buyback system may be necessary. In large volume areas, hatcheries may not be necessary. If mass production is necessary, fish farming may be needed to replace hatcheries.
9. Reducing the cost of canned pink salmon to make the product more marketable. A suggestion was made that the size of the can be reduced, thereby lowering the price. Is it a possibility to package the canned salmon without the skin and bones?
10. The problem of the fantastic growth of state and federal regulatory requirements has added significant costs to both harvesting and processing sectors.
11. The institution of the limited entry permit has created a new entry cost for the fishermen in the form of a permit.
12. A reduction or termination of state and local fish taxes would be helpful but overall I see few areas in the harvesting and processing sectors where significant cost reductions can be reasonably expected in the absence of some form of governmental subsidy.
13. There are many areas in the world where there could be increased consumption of Alaska frozen salmon but the price must be right to compete against farm salmon and other forms of protein.
14. Should the Alaska Hatchery programs continue to produce high volume, low value salmon, or concentrate on low volume, high value salmon?
15. Representative Moyer suggested that it would be useful for the task force to look at interior region fisheries and evaluate their potential contribution to the industry and the disparity of enhancement initiatives compared to other areas of the state.
16. Establish small to medium scale buying stations.
17. Establishment of certain types of infrastructure development including facilitating the development of strategically located public cold storages.
18. More high-seas fisheries for salmon - they prefer their salmon "fat and oily" and are willing to pay for it.
19. Comprehensive information system on seafood market activity.
20. Increase opportunities for sport fishermen.
21. Japanese eating habits are changing - they are eating more red meat.
22. Send fishermen to Japan to see how their fish is stored, distributed, processed, sold, cooked, and eaten.

3. AGENDA AND TIME FRAME

No one had any objections to the time frame suggested. There were a few who felt that the time frame was too short in order to solve all of the pending problems.

I have broken down the total number of responses into the following categories:

GROUP	NUMBER OF RESPONSES
Legislators	11
Government Agency	9
Academia	3
Consultant	8
Processors	12
Fisherman Associations	7
Independent Fishermen	8
Importers/Exporters	9
TOTAL	67

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Critical Issues Within Scope

can be addressed substantively within time frame

Fish Production

- ♦ What should salmon production levels be? (Inventory available information, but further study probably required):
 - What are likely future world salmon production and pricing levels over the next five years? Ten years?
 - What should Alaska's hatchery and natural run production levels be to match the world market?
 - Should Alaska attempt to compete in lower price mass production with other producers or focus on higher priced specialty markets?

- ♦ How can the quality of Alaska salmon be improved?
 - Catch fish further from terminal harvest areas to improve quality.

Harvesting and processing

- ♦ If prices are expected to remain low, what are the options for reducing the costs of harvesting and processing Alaskan salmon?
 - Growth in state and federal regulatory requirements have added significantly to cost.
 - Limited entry has added significantly to cost.
 - A permit buyback system may be needed in some areas.

- ♦ How can the quality of Alaska salmon be improved?
 - Continue to upgrade handling on vessels and in plants.

- ♦ What are the potential alternative markets for Alaskan salmon?
 - What are the potential product forms?

- ♦ Where does the money spent at retail go, and how can more of that money reach the primary producers?
 - Delineate costs in fishing and processing.
 - Compare costs of canned tuna and salmon.

- Adequacy of management plans
- Access to processing
- Should state take over environmental regulation

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Marketing

- ♦ What is happening to the Japanese market?
 - Japanese eating habits are changing. Take this into account.
 - Delineate growth in supply in world, US, and Japanese markets
 - *Do we understand the Japanese mind?*
- ♦ What are the potential alternative markets for Alaskan salmon?
 - How can niches be developed for products Alaska can produce?
 - *What is capacity of present industry to develop those markets?*
 - *State incentive support for product development*
- ♦ Where does the money spent at retail go, and how can more of that money reach the primary producers?
 - Delineate costs in distribution and retailing.
 - Compare costs of canned tuna and canned salmon.
 - Review available information on how ex-vessel fish prices relate to wholesale and retail price trends.
- ♦ ASMI issues
 - Change ASMI's focus from generic to specific products in specific markets.
 - Establish regional marketing associations.
 - Establish parallel salmon marketing structure funded by assessment on fishermen and controlled by fishermen.
 - *State rules clearinghouse for small associations market their fish.*

Financing and other

- ♦ What practical steps can be taken to Alaskanize the industry?
 - What are the infrastructure developments necessary to improve transportation and warehousing/cold storage capability?
 - Establish small to medium scale buying/processing stations.
 - Establish certain types of needed infrastructure such as transportation and public cold storage.
- ♦ What are the likely effects to vessel and permit values and loan portfolios if the current price trend continues for one, five, or ten years?

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Other issues unlikely to produce results within given time frame

- Identify what Alaska's hatchery and natural run production levels should be for each salmon species to match the world markets. Is there a consistent range of production that is achievable?
- Acknowledge importance of sport fishing and build it into strategy, increase opportunities for sportfishermen.
- Fish farming may be necessary.
- Look at interior fisheries, evaluate their potential contribution to industry, and the disparity of enhancement initiatives compared to other areas of the state.
- Send fishermen to Japan to see how their fish is stored, processed, distributed, sold, cooked, eaten.
- Develop a comprehensive database on salmon production, marketing, exchange rates, etc.
- Is illegal price setting taking place to keep prices artificially low?
- Don't see many places to reduce costs other than fish taxes or outright subsidies.

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The Honorable Dick Eliason
Senate President
P.O. Box V
Juneau, AK 99811 465-4916

The Honorable Fred Zharoff
Alaska State Senator
3111 C Street, Suite 520
Anchorage, AK 99503 561-2003

The Honorable Gene Kubina
Alaska State Representative
P.O. Box 2463
Valdez, AK 99686 835-2111

Commissioner Glenn A. Olds
Department of Commerce and
Economic Development
P.O. Box D
Juneau, AK 99811 465-2500

Commissioner Carl L. Rosier
Department of Fish and Game
P.O. Box 3-2000
Juneau, AK 99802-2000 465-4100

Jerome Komisar
President, University of Alaska
910 Yukon Drive
Fairbanks, AK 99775 474-7311

Mr. Bob Waldrop
ASMI President
Silver Lining Seafoods
P.O. Box 6092
Ketchikan, AK 99901 225-6664

or: c/o Silver Lining Seafoods
P.O. Box 9323
Seattle, WA 98109 206-343-9066

Mr. Ed Crane 276-2007
President
Commercial Fisheries and Agriculture Bank
2550 Denali Street, Suite 1201
Anchorage, AK 99503

Mr. Rick Lauber 586-6366
Pacific Seafood Processors Assn.
321 Highland Drive
Juneau, AK 99801

Mr. Gregg Seider 586-2820
United Fishermen of Alaska
211 4th Street, Suite 106
Juneau, AK 99801

Mr. Bruce Suzumoto 424-7511
Prince William Sound Aquaculture Corporation
P.O. Box 1110
Cordova, AK 99574

Ms. Sandy Cesarini 344-0519
6621 Fairweather Drive
Anchorage, AK 99518

Ms. Hazel Nelson 263-9820
President
Becharof Corporation
1577 C Street Plaza, Suite 124
Anchorage, AK 99501

ORIGINAL
PACKET,

5-15-91

MEETING

MEETING AGENDA

&

ATTACHMENTS

SENATE SPECIAL COMMITTEE ON FISHERIES
MEETING: MAY 15, 1991

INITIAL DISCUSSION OF STATEWIDE HATCHERY ISSUES

AGENDA

1. Discuss problems and need for legislative review of hatchery issues.

Briefly review documents in folder:

List with heading, "Why is it time to Review..."
(prepared by staff)

Paper titled, "FRED Division -- Alaskan Fisheries Enhancement in the 1990's"

Letter from Alaska Board of Fisheries to the Legislature dated May 6, 1991 (pink cover)

Collection of differing legal opinions regarding hatchery stock management (Attorney General's Office, Legislative Legal Services, and a private attorney) (yellow cover)

Also in folders for reference:

Misc. Letters (blue cover)

S.E. Alaska Seiners Association suggesting possible topics for study

Prince William Sound Aquaculture Corp.

Alec Brindle letter with attached paper by Ray Hilborn

Copy of Current laws and regulations for Private Nonprofit Hatcheries (peach cover)

2. Develop list of topics that the Legislature needs to have researched in order to begin evaluating the present status and future directions of fisheries rehabilitation, enhancement, and development programs in Alaska.

Review:

Document titled, "Hatchery Issues: Draft Questions and Topics for Legislative Review and Research"
(attached to meeting agenda)

Make amendments, additions and subtractions to list to make it state the committee's desired scope of study.

3. Develop work plan for legislative research and review.

Review:

Page headed, "How to Approach the Topics of Concern" (attached to meeting agenda)

Page titled, "Proposal for Interim Staff Work on Hatchery Issues" (attached to meeting agenda)

Rep. Ulmer's proposal for ISER study (green cover)

Packet of misc. studies (few examples of studies currently available (hot pink cover)

Discuss:

Committee's goals

Options for achieving goals

Decide course of action

**WHY IS IT TIME TO REVIEW ALASKA'S FISHERY REHABILITATION,
ENHANCEMENT AND DEVELOPMENT PROGRAMS?**

- * The program was established in the early 1970's and has evolved from its beginnings to its current status as one of the largest and most successful hatchery systems in the world. Although it is a "whole different animal" now, has undergone enormous growth, and is now a major force in the overall fisheries picture in the state, it still operates essentially under the same statutory intent and direction that were passed more than 15 years ago.
- * There is no comprehensive statewide policy for fisheries enhancement, rehabilitation, and development. To maximize the benefits and minimize negative impacts, clear policies should be adopted regarding overall goals and purposes, management priorities of wild and hatchery stocks, establishment of production level targets, marketing, levels and types of State involvement, assessment of regional and statewide economic impacts, etc.
- * The Legislature is the entity which appropriates funding for the Department of Fish and Game, state hatchery programs, and for pass-through funds and state loans for private non-profits, and the entity which writes the laws regarding hatchery programs. So the Legislature is the appropriate body to review laws, financing and policies regarding these programs, and make adjustments and give direction as necessary.
- * The Alaska Board of Fisheries has requested statutory clarification regarding hatchery policy and management in order to assist them in making regulatory decisions.
- * State fiscal support for hatchery subsidies is declining, possibly jeopardizing existing investments and programs, and precluding expansion into new potentially beneficial projects. A sensible plan for reducing spending while preserving program integrity should be developed.
- * A number of concerns regarding the hatchery programs have been expressed to the Legislature. Some of the concerns expressed stem from the following perceptions:
 - Hatchery stocks may be biologically impacting wild stocks.
 - High production of hatchery fish may be impacting

market conditions for all fish. Markets are inadequately developed to handle the quantity being produced (of wild and hatchery fish).

- Hatcheries are beginning to be perceived by commercial fishermen as a "competing gear group." There is growing discontent about paying aquaculture assessments.
- Hatchery programs have become so large and successful that they are "taking on a life of their own," at the risk of losing sight of their originally intended purposes and beneficiaries.

HATCHERY ISSUES:
DRAFT QUESTIONS AND TOPICS FOR LEGISLATIVE REVIEW AND RESEARCH

I. What are the goals and purposes of hatcheries in Alaska?

What were they intended to be when the programs were established in early 1970's?

FRED hatcheries

Private nonprofit hatcheries (PNP's)

What should they be now and in the future?

If circumstances have changed enough to warrant adjustments in goals and purposes, does this require changes in statutes or policies?

Is adequate information collected and available regarding the biological affects of our high-production hatcheries on wild stocks? Do we know whether continued growth in hatchery production will ultimately harm or even replace wild stocks? Is this information being considered when planning for future direction of Alaska's hatchery programs?

Are current requirements for planning and oversight adequate to ensure that goals and purposes are met?

Are Regional Planning Teams enough?

Should there be a mandated "statewide" plan and/or planning team?

Current hatchery statutes are aimed primarily at production of salmon. But now some hatcheries are coming on line for non-salmon species, and planning and research regarding hatcheries for additional species of fish and shellfish is increasing. Should provisions be made to cover possible future hatcheries for non-salmon species?

Should such socio-economic factors as rural economic development be factored into fisheries enhancement and development goals, purposes, and planning?

II. What should the State's role be in hatcheries from now on?

State-owned and operated hatcheries

State role in PNP's

Permitting

Planning
Providing technical expertise
Financing

Grants, capital funding, loans, turning over of
formerly state-run hatcheries to PNP's

How have other states been dealing with their hatchery
programs as they have evolved in recent years?

III. Fisheries management questions

Should statutes provide clear policy and direction to
Board and Department regarding management and allocation
priorities when dealing with wild stocks and hatchery
stocks? (Concern has been expressed by Board of Fish
about lack of clear statutory direction -- See letter
from Board of Fish to the Legislature dated May 6, 1991).

Recent legal opinions show lack of clarity in
current law (See opinions of Asst. AG Steve White,
Legislative Legal Services Attorney George
Uttermohle, and private Attorney Michael Stanley).

What is obligation to provide for PNP broodstock?
Cost recovery fish?

What if ensuring those recoveries for a PNP
affects the biology or management of a wild
stock or existing fishery?

Should tagging of PNP hatchery fish be required in
order to track contribution to stocks and assist in
management decisions? If so, who should pay for it?

IV. PNP Operations Questions

Should there be statutory provision for CLOSING a
particular hatchery if it is no longer viable
(biologically or financially), or no longer meets the
goals of the hatchery program or the needs of those it is
meant to serve?

How would loan obligations be dealt with?

Are PNP's held accountable to the state and fishermen (as
they provide funding for PNPs through loans and
assessments)?

Is there adequate monitoring to ensure that maximum
benefit is being delivered for minimum cost? Is
cost effectiveness REQUIRED?

Commerce Dept. now holds ex officio seat

on RPT's. Should they have full membership or at least an oversight function to ensure that financial aspects of plan are adequately covered?; i.e. whether they meet nonprofit standards, does plan for raising of particular species and amounts make financial sense, etc.

V. Market / Economics Questions

Where do hatcheries fit into the market picture of Alaskan salmon?

Is there adequate information available regarding competition for market share by cost recovery fish, and regarding how success of hatchery production affects overall market conditions?

Effects on processing capabilities

Recent request to allow foreign processors into Prince William Sound

Would more accurate fish run projections and development of better markets help to offset the concerns about hatchery "over-production?"

What role could FRED Division, Aquaculture Associations, and other PNP's play in market development?

HOW TO APPROACH THE TOPICS OF CONCERN?

- I. Which questions are under the jurisdiction of the Legislature and should be addressed directly by the Legislature?
- II. Who should be responsible for researching and acting on others?
- Options:
- Board of Fish
 - ADF&G
 - FRED Division
 - What is the "Hatchery Forum" and what is it doing?
 - PNP's themselves
 - Regional Planning Teams
- III. What research needs to be done to prepare the Legislature to address those topics for which it is responsible and how should we go about getting it done?
- Options:
- Existing Fisheries Committee?
 - Need legislative interim or special committee specifically on hatchery issues?
 - Assign certain topics to:
 - Legislative Research Agency?
 - Legislative Legal Services?
 - Interested legislators' offices and staff?
- *** SEE ATTACHED PROPOSAL FOR STAFF WORK***
- ISER Study - see Rep. Ulmer's letter and proposal
- Review previously done economic studies to avoid overlap of subject matter:
- "Alaska Seafood Industry Study," by McDowell Group, March 1989
 - "A Comparison of Demand Models for Alaska Salmon," by Dr. Boyce, August 1990
 - Others?
- Is it time for an ISER study? If so, what exactly should it address?
- If other interim research is assigned to legislative staff, should scope of any ISER or other hired research be defined after staff has developed a work plan?

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PROPOSAL FOR INTERIM STAFF WORK ON HATCHERY ISSUES

Establish informal ad hoc group of House and Senate staff (under auspices of Senate Special Committee on Fisheries) to work with list of topics developed at May 15 meeting of Senate Special Committee on Fisheries.

Interested existing interim staff, with permission and direction from their respective legislators, will form this working group.

The goals of the staff working group will be :

- * Meet to go over and refine list of concerns and questions.
- * Divide work load among participating offices.
- * Develop work plan and schedule for interim research they will conduct themselves.
- * Develop request for work to be done by other entities such as Legislative Research Agency and Legislative Legal Services Division.
- * Ensure that work includes input from Board of Fisheries, ADF&G, PNP's, Aquaculture Associations, fishing organizations, and other interested parties.
- * Work with Legislators in developing list of specific questions if it is determined that the project requires professional research by an entity such as ISER.
- * Coordinate efforts between participating offices throughout interim.
- * Compile data and develop possible options for legislative action to be considered during 1992 session.
- * Present work product to Legislature in January 1992.

Staffers interested in working on the project will be asked to contact Sen. Eliason's office.

Legislative staff members who have expressed interest so far in participating in such work:

NAME	OFFICE
Mary McDowell	Sen. Eliason
Molly McCammon	Sen. Hoffman
Paula Terrel	Sen. Jones
Jay Nelson	Rep. Davidson
Kate Tesar	Rep. Grussendorf
Barnaby Dow	Rep. Ulmer
Tom VanBrocklin	Rep. Kubina

Coordination of the overall project of legislative review of hatchery issues will be through the Senate Fisheries Committee (Sen. Eliason's office), although coordination of the proposed

staff work project may be delegated to staff from another office or offices during at least part of the interim.

At least one meeting (probably by teleconference) of the Senate Fisheries Committee, other interested legislators, and staff involved in the research, would be held in the fall to assess progress and discuss ongoing work.

This work plan should provide the Fisheries Committee (and all legislators) with a good amount of information by the beginning of the next session upon which to base analysis of statewide hatchery issues, and to begin formulating some recommendations for legislative action.

FRED Division -

Alaskan Fisheries Enhancement in the 1990s

The Fisheries Rehabilitation, Enhancement and Development (FRED) Division of the Alaska Department of Fish and Game was created in 1971 by the Legislature and the Governor because the people of Alaska expressed grass roots support for an enhancement program to revitalize an ailing salmon fishing industry. Catches were at all-time lows (figure 1), and the development of an enhancement program, which would serve the state in both years of lean and bountiful salmon harvests was envisioned by Alaskans. Bond issues to build the public hatchery facilities were passed overwhelmingly in the 1970s. The FRED Division was given broad statutory authority by the Legislature to "through rehabilitation, enhancement and development programs do all things necessary to insure perpetual and increasing production and use of food resources of Alaska waters and continental shelf area (AS 16.05.092)." In less than twenty years FRED Division has guided

the development of the second largest salmon enhancement program in the world. FRED has also developed technologies that revolutionized salmon production. The Division has sought and successfully implemented a partnership with the private sector that is unique.

To conclude that because the salmon harvest in 1990 was the second largest in Alaska's recorded history, and, therefore, salmon stocks are now uniformly robust statewide would be incorrect. Factors affecting the thousands of individual stocks of salmon are a complex mixture of physical, biological, environmental and genetic parameters. Some areas of the state are unique in that native salmon stocks are weak or not available for harvesting. Presently the FRED Division is assessing enhancement programs in northwestern Alaska that could be used for meeting subsistence, economic and social needs.

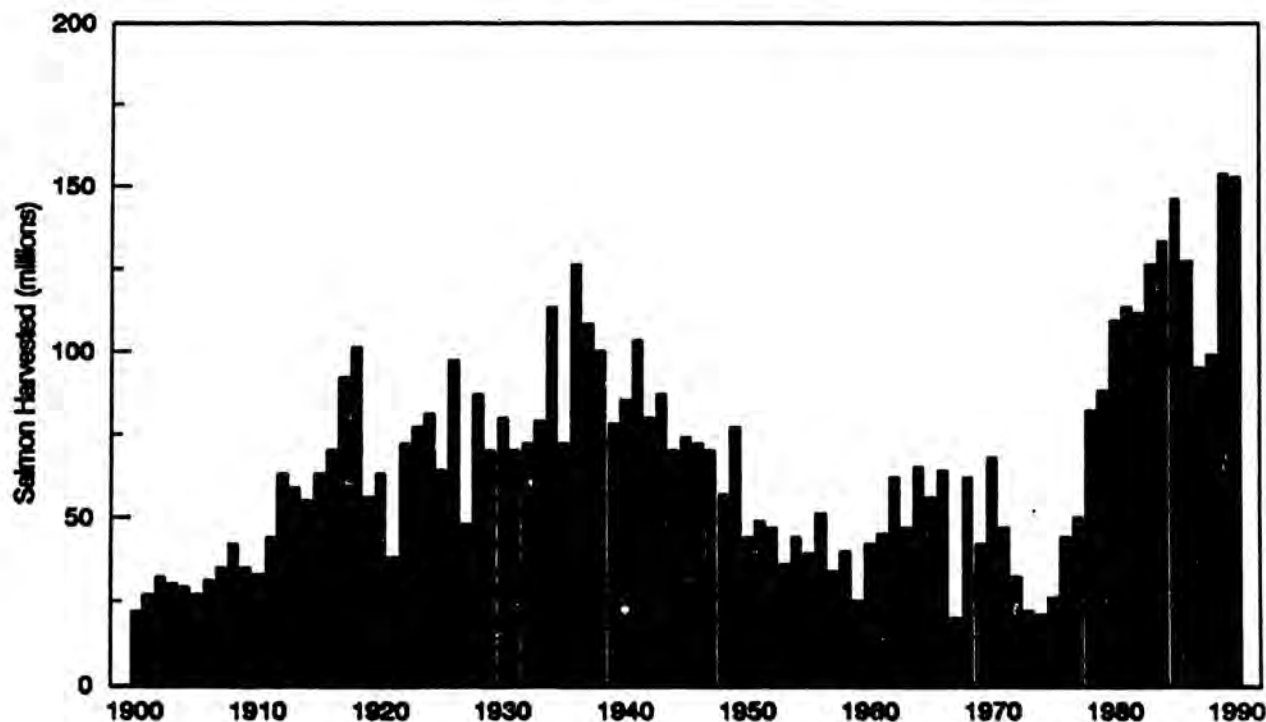
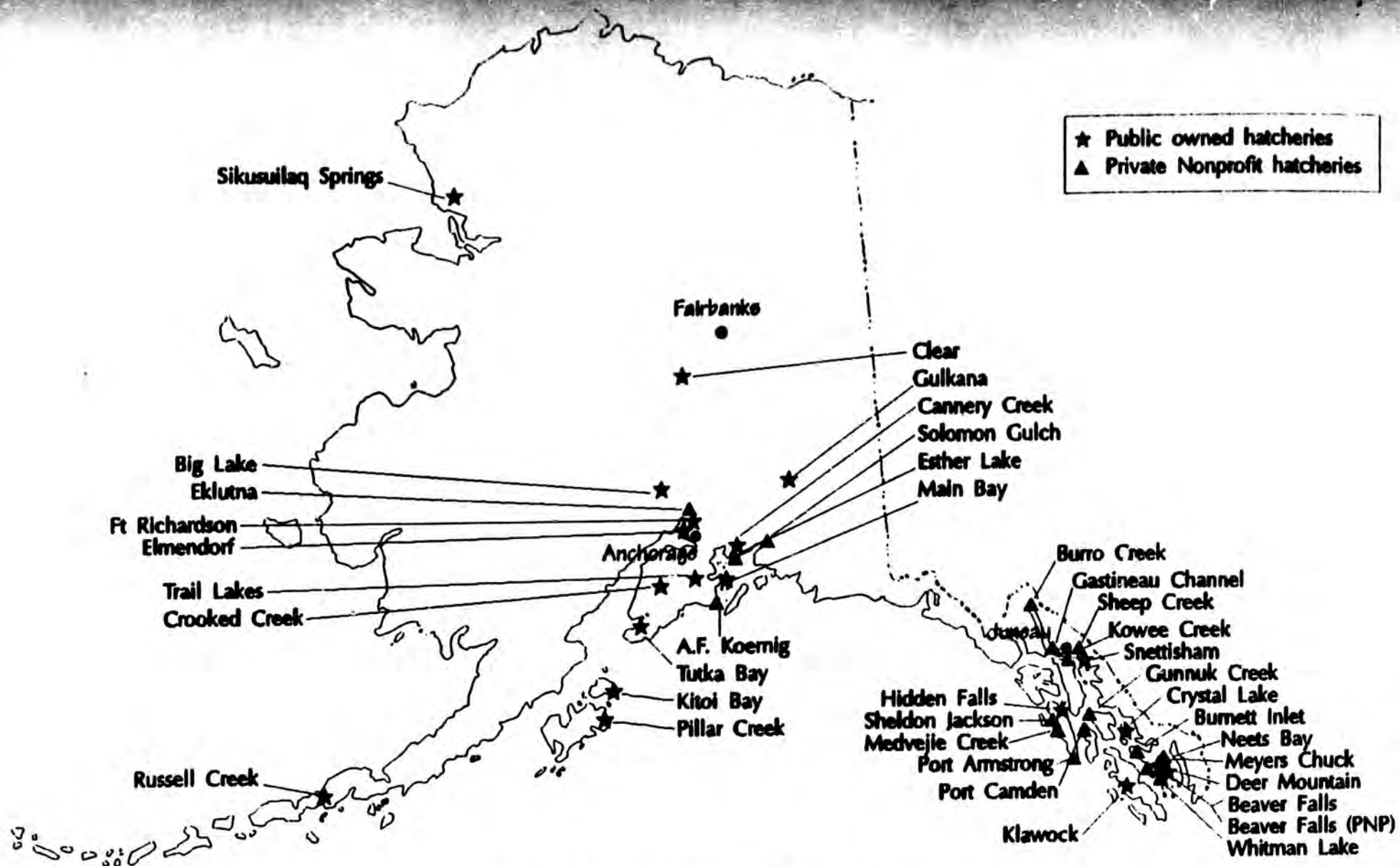


Figure 1. FRED Division was created in 1971 at a time of record low harvests



Alaskan Fish Hatcheries

Figure 2. There are 20 publicly-owned hatcheries and 20 PNP hatcheries in Alaska.

The fisheries enhancement program in Alaska is a unique blend of government and private sector cooperation. FRED Division's role is to provide technical services to the industry, effectively develop many areas of salmon technology, and successfully transfer that technology to the private sector. In the 1970s and early 1980s, FRED Division developed the hatchery production of pink and chum salmon in Alaska and worked with the private nonprofit (PNP) salmon producers, helping them to acquire those skills. In the mid-1980s, FRED Division initiated and developed lake and hatchery technology for production of sockeye salmon, eventually becoming the world leader in that area. This technology, along with most of FRED Division's fully developed pink and chum salmon hatcheries, was transferred to the private sector in the late 1980s.

Statewide enhancement program

Presently there are 20 publicly-owned hatcheries and 19 PNP hatcheries (figure 2). Declining general funds have created uncertainty in operating public hatcheries, subsequently several publicly-owned hatcheries have been contracted to the private sector. Fishpasses located throughout the state provide spawning and rearing habitat that would otherwise be unattainable to salmon stocks. The strategies of lake fertilization, habitat improvement, and fish stock introduction are used to provide improved freshwater survival and new production opportunities for salmon stocks.

The Alaskan enhancement program has been characterized by phenomenal biological success. It has grown from the first return of pink salmon in 1976 of 30,000 fish statewide, to a total return in 1990 of over 48 million (figure 3). More than 34 million enhanced fish were caught in the 1990 commercial fishery. Similarly the eggtake in 1974 was 22 million, while the eggtake in 1990 was over 1.6 billion statewide (figure 4). More than 1.1 billion fish were released into Alaskan waters in 1990 (figure 5). This unprecedented growth in just 14 years makes the Alaskan hatchery enhancement effort the largest of its kind in North America and second largest in the world, behind Japan. Alaska is the world leader in the

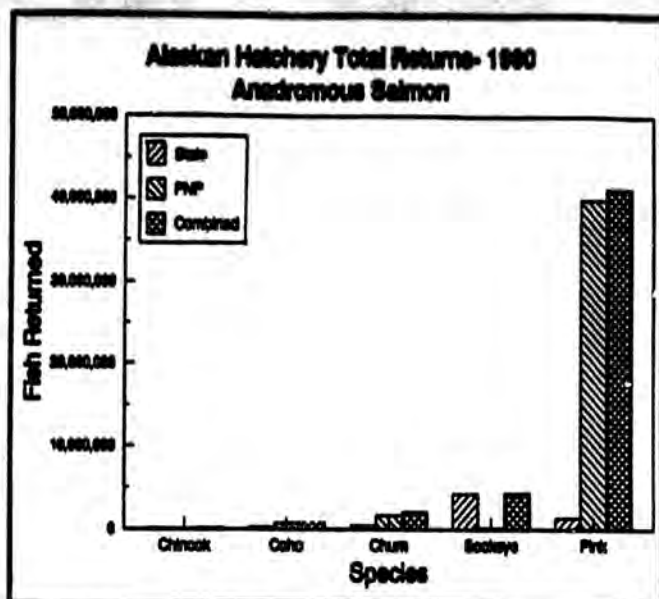


Figure 3. More than 48 million hatchery-produced fish returned in 1990.

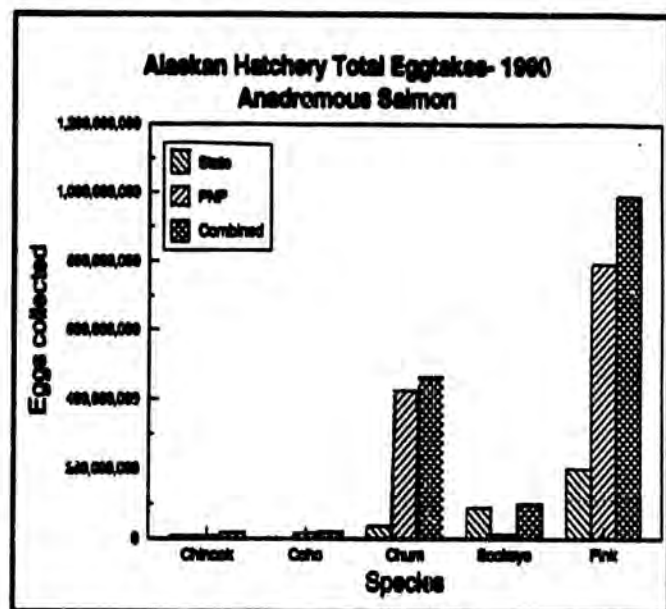


Figure 4. More than 1.6 billion eggs were collected in 1990 by Alaskan hatcheries.

production of sockeye salmon taking over 110 million eggs under hatchery culture in the last five years. As this research and development program has evolved it allowed us to achieve a major breakthrough in sockeye culture which resulted in the production of 2.6 million sockeye smolts at Main Bay Hatchery in 1990.

Significant milestones have also been reached in the non anadromous trout program, involving production of unique Arctic species such as Arctic char,

grayling, lake trout, and sheefish, in addition to rainbow trout. Over 4.1 million non-anadromous fish were stocked into more than 300 different stocking locations for enhancement of the sport fishery.

Economic benefits

FRED Division's activities are a prime example of the economic principle that government should invest its money in activities that stimulate the economy. The overall economic impact of the Alaskan enhancement program has been phenomenal. In 1990 hatchery-produced fish represented more than 20% of the total statewide common property salmon catch. The employment impact on the state's economy has been projected, using a model created by the University of Alaska Institute of Social and Economic Research, to sustain over 3,500 resident jobs and \$102 million in resident personal income at current levels of enhanced fish production.

The fisheries enhancement program in general can and does make a positive impact on the state's economy. A salmon price forecasting model created for FRED Division by the University of Alaska demonstrates that Alaskan salmon are under supplied in the market place. Fishermen could be receiving greater revenues if catches were increased. FRED Division can direct economic opportunities through implementation of enhancement strategies designed to benefit specific geographic areas. Directed economic development through effective fisheries enhancement is being initiated in many new areas, such as the Yukon River, Norton Sound, Nelson Island and other northwestern Alaskan communities.

Helping Alaskans help themselves...

The FRED program is a prime example of government helping Alaskans to help themselves. The people of the state saw a need and became participants in the enhancement program through fishermen's groups and other PNP organizations. The enhancement program impacts a broad cross-section of Alaskans through direct, indirect and induced benefits through all sectors of the economy.

The FRED Division has developed a valuable resource of technical expertise and acts as a focal point of the government's interaction with the burgeoning PNP salmon ocean ranching and shellfish mariculture industries in the state. It provides services including pathology, genetics, limnology, economics, biology, fish culture, engineering, and data management expertise to all salmon producers in the state.

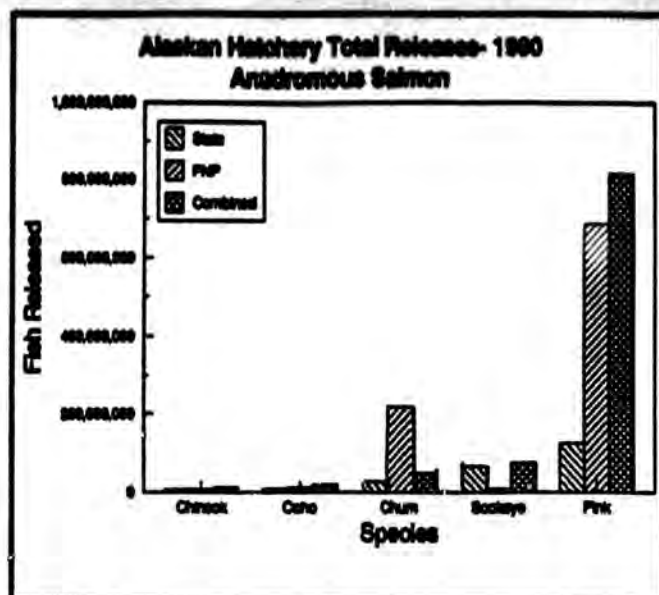


Figure 5. Over 1.1 billion fish were released into Alaskan waters in 1990 from Alaskan hatcheries.

FRED Division in the 1990s

In the 1990s, FRED Division will expand its programs to regions of the state not yet directly benefiting from enhancement projects. It will continue to lead the salmon enhancement program and its private sector partners through technological development and application of technical services. It will move into new and critical areas such as king crab, scallops, black cod, and halibut enhancement. It will expand its fisheries habitat rehabilitation efforts and become involved with restoration programs in oil-spill affected areas. In short, the FRED Division will continue to take the lead in fisheries enhancement.

Based on the overwhelming success of the program, there is a growing interest in using fisheries enhancement as a means for economic diversification for both rural and urban Alaska. From northwestern to southeast Alaska, the public is seeking fisheries enhancement as an important economic tool because there is a return on this public investment. With projected oil production on the decline, the need to diversify the economy in all of Alaska becomes essential, and renewable natural resources become much more critical to Alaska's economy. The biological and economic potential of all of Alaska's fisheries can be more fully realized through fisheries enhancement.

Brian J. Alles, Ph.D. Director
Alaska Department of Fish and Game
FRED Division
PO Box 3-2000
Juneau, AK 99802-2000



2001 MM

BOARD OF FISH LETTER

LETTER FROM
BD. OF FISHERIES

May 6, 1991

The Honorable Richard Eliason
President
Alaska State Senate
P.O. Box V
Juneau, AK 99811

Dear President Eliason:

This letter is in response to a request by the Senate Resources Committee and the Special Senate Fisheries Committee when Board of Fisheries members appeared before the committee in March. We appreciated the opportunity to sit down with the committee and discuss items which will improve the board's ability to serve the people of Alaska.

In managing fisheries that involve hatchery raised salmon, the Board of Fisheries has encountered problems due to ambiguities in the current Alaska statutes. These problems commonly arise when the management of hatchery stocks conflicts with either the health of wild stocks or with the opportunity of fishermen to harvest wild stocks. Essentially, the statutes are not clear on the status of wild stock management.

State statutes also are not clear about the state's duty to provide fish for hatchery broodstock and cost recovery, and about the hatcheries' obligations to contribute to the common property fisheries. We perceive that the development of state policy toward hatcheries may have created a conflict of interest. On one hand, the state manages fisheries as a common property resource for the benefit of all user groups. On the other hand, the state loans money to hatcheries with the expectation that the hatcheries will receive enough fish to be able to repay these loans.

The board has the following comments on the existing statutes:

1. AS 16.10.375 Regional Salmon Plan. Should new language require a review or synthesis of the regional plans to give a statewide perspective on hatchery production?

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2. AS 16.10.380 Regional Associations. One of the great strengths of the regional associations is the representation of all user groups on their boards of director. However, the PNP's have no such requirement. Should all hatcheries and enhancement activities in a region be under the control of the regional associations?

Should state laws apply to all hatcheries and enhancement activities in Alaska and not just private non-profit hatcheries? Other activities that might be covered include state-owned hatcheries, regional hatcheries, and the U.S. Fish and Wildlife Service, the U.S. Forest Service, and the National Marine Fisheries Service. Should all these activities be included in the Regional Comprehensive Plan?

Should the role of the regional associations be to coordinate region wide production and allocation subject to biological review by the Regional Planning Team and allocative review by the Board of Fisheries?

Given an expanded role for the regional associations, should their means and levels of funding be re-examined by the legislature?

3. AS 16.10.400 Permits for Salmon Hatcheries. The legislature should re-examine (g) of this section: "During the development of a comprehensive plan for a region no permit may be issued for a hatchery unless the commissioner determines that such an action would result in substantial public benefits and would not jeopardize natural stocks."

The first ten words of this section, "During. . . region . . .", suggest that once the plan is completed, the prohibited actions could be allowed. Perhaps this wording should be deleted. Also, we believe that there should be more specific grounds and procedures for terminating hatchery permits after they have been issued.

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Legislators should note that 5 AAC 40.860 provides generic standards for performance review of hatchery success in producing smolt from broodstock. There are no statutory standards, however, for performance review of hatchery contribution to common property fisheries. If a hatchery cannot demonstrate that it is providing "substantial public benefit", is the state required to continue to provide for returns to the hatchery for broodstock or cost recovery purposes?

In this subsection, "substantial public benefit" is not clearly defined. The board recommends that the legislature consider linking the number of eggs taken as broodstock or the number of smolt released by a hatchery to that hatchery's required contribution to the common property fisheries.

The board may contribute to clarifying "substantial public benefit" by requiring the marking of hatchery fish. While we believe that the board has the authority to require this, it would be helpful to have this authority specifically provided by statute. Should the cost of implementing a marking program be borne by the producers of hatchery fish or by the state?

The last five words of this subsection, ". . . would not jeopardize natural stocks", is one of only two places (the other is AS 16.10.420(10)) which declares that it is the legislature's intent that the conduct of the entire state hatchery system is conditional on the protection of natural stocks. Perhaps because our hatcheries have flourished over time, and given some of the intense debate occurring in Oregon, Washington and Canada on how hatchery stocks have impacted natural systems, it is especially timely for the legislature to review the treatment natural stocks receive.

4. The necessity of protecting Alaska's vigorous natural stock populations is recognized by Department of Fish and Game regulations and policies. The regulations are in 5 AAC 40. For example, some of the strongest language exists in 5 AAC 40.220(b)(1), "the proposed hatchery returns may not unreasonably or adversely affect management of natural stocks. . .". Additional language exists in 5 AAC 40.005(a), (c), and (e), 5 AAC 40.007(b), 5 AAC 40.170 (2), 5 AAC 40.220 (b)(1), (3) and (7), and 5 AAC 40.860 (b)(2) and (4). As this issue of natural stock protection is examined by the legislature, the board recommends that the legislature seek input from the Commissioner of the Department of Fish and Game.

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5. The legislature may wish to further clarify their intent in additional and more concise definitions of terms used in Title 16. For example, the following terms should be clarified: "escapement", "brood stock", "cost recovery", "substantial public benefit", and "private non-profit."

Should escapement apply strictly to natural stocks returning to natural systems?

Should broodstock be defined as the number of eggs authorized by permit to meet the production levels of the hatchery and to contribute to the common property fisheries? Some wording to this effect would be valuable in light of AS 16.10.420 and AS 16.10.450 which allow for the sale of salmon and salmon eggs for cost recovery. Fish which return to the hatchery for broodstock should be differentiated from fish which return and may be taken for cost recovery.

Does the legislature wish to rank or prioritize escapement to natural systems compared to return of broodstock to hatcheries?

"Cost recovery" is another term which warrants some further clarification. How clear definition of broodstock, coupled with a definition of substantial public benefits in terms of what is contributed to common property fisheries from broodstock, would provide a clarification of fish available for cost recovery as long as the maintenance of hatchery stocks be achieved.

These concerns of the Board of Fisheries are presented for your consideration. Your interest, and past support, in these resource issues has been greatly appreciated.

Should you have further questions, please feel free to call me.

Sincerely,

Michael R. Martin
Chair
Alaska Board of Fisheries

cc: Board of Fisheries members
Carl Rosier, Commissioner, ADF&G

LEGAL OPINIONS

MEMORANDUM

State of Alaska

Department of Law

TO: Hon. Don W. Collinsworth
Commissioner
Department of Fish and Game

DATE: August 1, 1990

FILE NO: 663-90-0327

TEL NO: 465-3600

SUBJECT: ADF&G authority to manage
fisheries for hatchery
broodstock and cost
recovery

Stephen M. White

FROM: Stephen M. White
Assistant Attorney General
Natural Resources Section

You have asked whether the Department of Fish and Game has legal authority to manage fisheries so that salmon hatcheries receive broodstock and cost recovery fish for their operations. You also asked whether the department is required to manage fisheries for these results. Your staff has also asked us to compare the department's authority with that of the Board of Fisheries.

I. ANALYSIS

A. Factual and Legal Background

There are two types of salmon hatcheries in Alaska. These are private, nonprofit hatcheries and state-owned hatcheries.

The regulation of private, nonprofit hatcheries is provided for in AS 16.10.400 - 16.10.470. These hatcheries have received a significant amount of public funds, principally in the form of loans from the state's fisheries enhancement revolving loan fund established by AS 16.10.507. 1/ Until fish raised by private, nonprofit hatcheries return to a location where they can be harvested by the hatchery operators, these fish "are available to the people for common use and are subject to regulation under applicable law in the same way as fish occurring in their natural state." AS 16.10.440(a).

The only law that deals with state-owned hatcheries is the one that gives the commissioner of the Department of Fish and Game authority to design and construct public hatcheries. AS 16.05.050(3).

1/ According to the Department of Commerce and Economic Development, the current amount owed to the state by private, nonprofit hatcheries is approximately \$63.1 million.

B. Board of Fisheries' Authority to Manage for Hatchery Returns

1. Board's authority to manage for broodstock fish

The Board of Fisheries was created "for purposes of the conservation and development of the fishery resources of the state." AS 16.05.221(a) (emphasis added). The board has authority to "adopt regulations it considers advisable in accordance with the Administrative Procedure Act (AS 44.62) for . . . regulating commercial, sport, subsistence, and personal use fishing as needed for the conservation, development, and utilization of fisheries." AS 16.05.251(a)(12) (emphasis added).

The Alaska Supreme Court has defined "conservation" as "controlled utilization of a resource to prevent its exploitation, destruction, or neglect." Kenai Peninsula Fisherman's Coop. Ass'n v. State, 628 P.2d 897, 903 (Alaska 1981). We believe that the board's authority to conserve the fishery resource of the state, that is, to prevent its "exploitation, destruction, or neglect," is an expression of the constitutional requirement that fish be "utilized, developed, and maintained on the sustained yield principle." Alaska Const. art. VIII, § 4.

We understand that the term "broodstock" means the portion of returning fish that a hatchery uses to provide eggs for raising its next contribution to the common-property fishery. Because broodstock helps to perpetuate the fishery resource, we believe that managing for broodstock is analogous to managing for escapement of wild fish to achieve sustained yield. It follows, therefore, that the Board of Fisheries is empowered to adopt regulations that will provide brood stock to the hatcheries. Furthermore, because management for sustained yield is required by article VIII, section 4, of the Alaska Constitution, we believe that the law directs the board to manage for this result.

2. The Board's Authority to Manage for Cost Recovery Fish

We understand that "cost recovery fish" are the portion of returning fish that a private, nonprofit hatchery harvests and sells to help meet its financial obligations. We also understand that state-owned hatcheries do not presently harvest fish for cost

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recovery. Thus, the question of managing fish for cost recovery concerns only private, nonprofit hatcheries. 2/

As noted above, the Board of Fisheries has authority to adopt regulations for development as well as for conservation of the fisheries. AS 16.05.221(a); AS 16.05.251(a)(12). The Alaska Supreme Court has defined "development" as "management of a resource to make it available for use." Kenai Peninsula, 628 P.2d at 903.

We have previously advised that this authority empowers the board to allocate fish that are beyond those needed to assure sustained yield. This power is established by AS 16.05.251(d), which mandates that the board provide "a fair and reasonable opportunity for the taking of fishery resources" by fishery user groups and by AS 16.05.251(e), which requires that the board adopt criteria for making allocations among these groups. 1990 Inf. Op. Att'y Gen. (Jan. 12; 663-90-0227); 1989 Inf. Op. Att'y Gen. (Apr. 7; 663-89-0465).

The courts have endorsed various forms of allocation. These have included allocations between the various overall user groups identified in the fish and game code -- personal use, sport, and commercial fishers. For example, in the Kenai Peninsula case, the Alaska Supreme Court said that the board could establish priorities of use between recreational and commercial fishers. Kenai Peninsula, 628 P.2d at 903. In other cases, the courts have upheld regulations that allocate harvest between competing subgroups of a particular user group. For example, the court upheld the board's allocation of fish between drift gillnet fishers and set gillnet fishers, both of whom are commercial users. Meier v. State, 739 P.2d 172, 174 (Alaska 1987).

Private, nonprofit hatcheries are not identified in the law as an overall user group. Nevertheless, we know of no reason why they could not be considered a subgroup of commercial users and thus be targeted for allocations like any other distinct subgroup of commercial harvesters.

The law establishes seven criteria that the board may consider when making allocations. AS 16.05.251(e). See also 05 AAC 39.205, 05 AAC 75.017, and 05 AAC 77.007. We have

2/ If state-owned hatcheries, operated by the state or by private contractors, harvest cost-recovery fish, this would raise issues that are beyond the scope of this memorandum. In that event, we would be pleased to provide you with further analyses of those issues.

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previously noted that the board is not limited to just these factors. We cautioned, however, that if the board considers additional factors, it should insure that the resulting allocation satisfies constitutional requirements of substantive due process and of equal protection. 1990 Inf. Op. Att'y Gen. (Jan. 12; 663-90-0227). 3/

To satisfy substantive due process, an allocation cannot be arbitrary and it must further a legitimate governmental purpose. Mobile Oil Corp. v. Local Boundary Comm'n, 518 P.2d 92 (Alaska 1974). To satisfy equal protection, a distinction between competing users must be "based on a legitimate public purpose and . . . be reasonable, not arbitrary, and . . . rest upon some ground of difference having a fair and substantial relation to the object of the [allocation scheme]." State v. Ostrovsky, 667 P.2d 1184, 1193 (Alaska 1983) (citation omitted).

Earlier we noted that private, nonprofit hatcheries have received substantial loans from the state. We assume that cost recovery fish are a significant, if not essential, source of income for meeting these hatcheries' debt service. If the borrowers do not receive sufficient cost recovery fish, it may not only threaten their ability to contribute to the common-property fishery, but also their ability to repay state loans. Accordingly, we believe that preventing the economic failure of borrower hatcheries would certainly be a "legitimate government purpose."

We also believe that distinguishing between private, nonprofit hatcheries, who make a direct contribution to sustained yield, and other users who do not make such a contribution bears a "fair and substantial relationship" to the goals of sustaining common-property fisheries and replenishing the loan fund. Thus, we believe that an allocation to provide cost recovery fish would satisfy the requirements of substantive due process and equal protection.

We note, however, that none of the present criteria in AS 16.05.251(e) precisely describe the positive attributes of hatcheries. Factors (5) (economic importance) and (6) (regional importance) could, under narrow circumstances, justify an

3/ We also opined that allocations must satisfy the provisions of article VIII of the Alaska Constitution. Specifically, these are section 1 (maximum use), section 2 (maximum benefit), section 3 (common use), section 15 (no exclusive right of fishing), and section 17 (equal application). 1990 Inf. Op. Att'y Gen. (Jan. 12; 663-90-0227). We do not believe that an allocation for cost-recovery would violate any of these sections.

allocation that provides for cost recovery.^{4/} Although the board is not limited to using these criteria, they still affect the public and implement a legislative mandate. Thus, any unlisted criteria that the board wishes to use should be adopted by regulation. See Kenai Peninsula, 628 P.2d at 905, 906. In other words, if the board intends to allocate for cost recovery, it should adopt by regulation criteria that more closely describe the special attributes of private, nonprofit hatcheries.

The board's authority to allocate for cost recovery, then, is based upon characterizing private, nonprofit hatcheries as another type of commercial subgroup. But, there is nothing in the law that requires the board to allocate to a particular group or subgroup. Accordingly, we do not believe that the board is required by law to allocate cost recovery fish to this subgroup.

C. Department's Authority to Manage for Hatchery Returns

1. Department's authority to manage for broodstock

The commissioner of the Department of Fish and Game has limited tools for managing commercial fisheries independently of the board. This authority is contained in AS 16.05.060(a). It allows the commissioner to use emergency orders "when the circumstances require" to summarily open and close seasons or areas or to summarily change weekly closed periods.

The law does not define what circumstances will enable the commissioner to use his or her emergency order power. However, we have previously advised that in light of the commissioner's statutory charge to "manage, protect, maintain, improve, and extend the fish . . . resources of the state," emergency orders can be issued to protect sustained yield, based on conservation concerns. AS 16.05.020(2); 1989 Inf. Op. Att'y Gen. (Apr. 7; 663-89-0465).

Earlier we recognized an analogy between managing escapement of wild stocks for conservation/sustained yield and managing for hatchery broodstock in order to serve the same purposes. Thus, we believe that the department, acting through the commissioner's power to issue emergency orders, can independently

^{4/} For example, if (1) a certain fishery were an important segment of an economy, (2) a hatchery made a critical contribution to the perpetuation of this fishery, and (3) the hatchery could not survive to make this contribution without an allocation of cost-recovery fish, the board could conclude that the allocation would be very important to that economy.

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manage fisheries to provide broodstock to hatcheries. In the same way that the Alaska Constitution directs the Board of Fisheries to manage for the return of broodstock, we believe that the law also directs the department to manage for the same result.

2. Department's authority to manage for cost recovery fish

The law is not clear on the question of whether the department, through the commissioner's emergency order power, is authorized to independently manage fisheries for cost recovery fish. It is also not clear whether it is required to do so.

On one hand, it can be argued that the commissioner's statutory charge in AS 16.05.020(2) to "maintain and improve" the resource authorizes actions that will enable private, nonprofit hatcheries to survive. Unless they are able to meet financial obligations, hatcheries will not be able to raise broodstock, and thereby not be able to contribute to the "maintenance and improvement" of the resource. It can also be argued that it is unlikely that the legislature would have created a program for financing the hatcheries and yet not intended for fisheries to be managed so that these hatcheries could pay back their loans and contribute to the fishery resource.

On the other hand, cost recovery fish, unlike broodstock fish, do not directly contribute to the perpetuation of the resource. They are sold to meet economic needs of a user subgroup. Thus, they can be likened to fish that exceed the amount needed for sustained yield and are thus available for allocation among various users.

In the past, we have opined that the commissioner probably cannot allocate fish through his or her emergency order power. Only the board can allocate fish among competing fisheries or user groups. 1990 Inf. Op. Att'y Gen. (Jan. 12; 663-90-0227); 1989 Inf. Op. Att'y Gen. (Apr. 7; 663-89-0465). According to this argument, the department could not independently manage fish for cost recovery because it is not authorized to allocate fish among users. 5/

5/ Although it is not clear whether the department, independent of the board, is authorized or required to allocate fish for cost recovery, we note that there are several ways that the department, in conjunction with the board, could manage for this purpose. First, under AS 16.05.270 the board could delegate to the department its own authority to allocate for certain fisheries. Next,
(continued...)

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The arguments on both sides of this question depend upon implication and analogy. The law does not clearly point to one answer or the other. Although we believe we could defend an emergency order that was issued to provide cost recovery fish, we hesitate to predict the outcome of any challenge. Accordingly, if the department wishes to independently manage for cost recovery fish, we recommend that it seek clear authority from the legislature to do so.

II. CONCLUSION

The Board of Fisheries and the Department of Fish and Game are authorized, and in fact are directed, to manage fisheries so that broodstock returns to hatcheries. The board can manage through its power to adopt regulations and the commissioner, when he or she acts independently of the board, can manage through the power to issue emergency orders. The authority of both is based upon statutory provisions for managing for conservation and on constitutional mandates for managing for sustained yield.

The board has the statutory authority to manage fisheries so that cost recovery fish return to a private, nonprofit hatchery. However, it is not clear that the present allocation criteria recognize the special attributes of hatcheries. If the board adopts such criteria, the board's regulatory authority to manage for cost recovery would be clear as well. On the other hand, there is no basis to conclude that the board is required to allocate fish for this purpose.

Absent the board's delegation of allocation authority to the department, it is not clear that the latter is authorized or required to independently manage for cost recovery, even by emergency order. Although we believe we could defend such an action, we could not predict the outcome of such suit. Therefore, we recommend that the department seek legislation that more clearly establishes this power.

We hope this answers your questions. Please do not hesitate to contact us if we can be of further help.

SMW:tg

5/ (...continued)

the board could by regulation direct the department to manage a particular fishery for this purpose. Examples of this are in 5 AAC 24.365 and 5 AAC 24.366. Finally, the board could by regulation establish an allocation framework that the department could implement through emergency orders.

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cc: Bonnie Harris, Assistant Attorney General
Anchorage

DIVISION OF LEGAL SERVICES

LEGISLATIVE AFFAIRS AGENCY STATE OF ALASKA

P.O. Box Y, Juneau, Alaska 99811
(907) 465-3867 or 465-2450
FAX (907) 465-2029

Deliveries to: 240 Main Street
Court Plaza, Room 500
Mail Stop 3101

MEMORANDUM

April 8, 1991

SUBJECT: Sustained Yield Management of Salmon Produced by Private Nonprofit Hatcheries (Work Order 7LS0990)

TO: Senator Dick Eliason

FROM: George Utermohle *GU*
Legislative Counsel

You have asked whether the state must manage salmon produced by private nonprofit hatcheries according to principles of sustained yield.

The Department of Law in its consideration of this issue has concluded that the sustained yield section of the Alaska Constitution (art. VIII, sec. 4) is applicable to private hatchery stocks of salmon and that the Board of Fisheries is required to manage private hatchery stocks of salmon according to sustained yield principles in order to provide broodstock to the hatcheries. Memorandum to Don W. Collinsworth file no. 663-90-0327, August 1, 1990. The Department of Law reached this conclusion by finding that the return of hatchery-bred salmon to the hatchery for use as broodstock, like the escapement of wild salmon to the spawning grounds, is necessary to achieve sustained yield of the salmon resource.

The sustained yield section can be reasonably construed as supporting the conclusion reached by the Department of Law, however the section is also open to other interpretations which would support different conclusions. Article VIII, sec. 4 states:

SUSTAINED YIELD. Fish, forests, wildlife, grasslands, and all other replenishable resources belonging to the State shall be utilized, developed, and maintained on the sustained yield principle, subject to preferences among beneficial uses.

Of particular significance is the fact that this section applies to fish "belonging to the State" and that utilization, development, and maintenance of fish on the sustained yield principle is "subject to preferences among beneficial uses."

Fish belonging to the state are clearly to be managed according to sustained yield principles. The general rule is that salmon while in state water are property of the state and are held in trust for the benefit of all people of the state. Metlakatla Indian Community, Annette Island Reserve v. Egan, 362 P.2d 901, 914-915 (Alaska 1961). Part of the state's trust responsibility includes the management of salmon according to sustained yield principles. However it is unclear whether the sustained yield requirement applies to salmon raised by a private nonprofit hatchery, because the ownership of hatchery salmon is uncertain.

Private nonprofit salmon hatcheries are authorized under AS 16.10.375 - 16.10.470. AS 16.10.375 - 16.10.470 that does not answer the question of who owns hatchery stocks of salmon, though a number of provisions do suggest that some property interest in hatchery salmon stocks may pass to the hatchery under the terms of the hatchery permit. There are at least four references to salmon eggs or fry being sold to or by a hatchery. AS 16.10.420(3), (7), and (8); 16.10.450. The ability to sell salmon eggs and fry implies an ability to transfer property rights in the eggs and fry.

AS 16.10.440, which provides for the common use of hatchery fish while the fish are in the natural water of the state, is silent as to whether hatchery fish belong to the state. AS 16.10.440(a) provides

Fish released into the natural waters of the state by a hatchery operated under AS 16.10.400 - 16.10.470 are available to the people for common use and are subject to regulation under applicable law in the same way as fish occurring in their natural state until they return to the specific location designated by the department for harvest by the hatchery operator.

The phrase "occurring in their natural state" used in AS 16.10.440(a) mirrors the language of the common use section of the state constitution (art. VIII, sec. 3) in order to assure that while in the water of the state hatchery fish are to be subject to common use. However providing that hatchery fish are available for common use neither implies state ownership of the hatchery fish nor entails a concomitant responsibility to manage hatchery fish for sustained yield, because the requirements for common use and sustained yield are separate provisions of the constitution.

AS 16.10.440(a) does not use the important phrase "belonging to the state" which would invoke the sustained yield section. According to AS 16.10.440(a), hatchery fish are to be treated "in the same way as fish occurring in their natural state until they return to the specific location. . ."; this language does not say that hatchery fish are a common property resource belonging to the state, but only that they are to be treated as though they were a common property resource until they return to the designated location, at which time the fish become subject to private use by the hatchery. This language suggests some form of lingering private property interest in

hatchery fish by the hatchery even after the hatchery releases the fish into the wild. If there is a latent private property interest in hatchery fish while they are in the wild, then those fish may not necessarily be fish belonging to the state. If the fish do not belong to the state then they are not subject to the requirements for sustained yield management under the state constitution. This could permit the state through the Board of Fisheries and the Department of Fish and Game to manage fisheries through which hatchery fish pass without regard to assuring a sustained yield escapement to the hatchery.

Even if the hatchery fish do belong to the state for the purposes of the sustained yield section, the requirement of the sustained yield section of the state constitution is not absolute, because the management of fish and other replenishable resources belonging to the state shall be utilized, developed, and maintained on the sustained yield principle, subject to preferences among beneficial uses. The delegates to the Alaska Constitutional Convention considered this qualifying language to be necessary because they found that the sustained yield principle becomes meaningless and ineffective, if it is not qualified by the concept of beneficial use. Alaska Constitutional Convention Proceedings, Delegate Riley, p. 3054-55. The delegates to the convention did not discuss in detail how they felt the concept of preferences among beneficial uses would be applied in the context of sustained yield management of replenishable resources, except to say that certain kinds of resources (e.g. predators and parasites) should not be maintained on a sustained yield basis. Alaska Constitutional Convention Proceedings, Delegate Riley, p. 2451; Commentary on Article on State Lands and Natural Resources, 6 Proceedings of the Alaska Constitutional Convention at 98. However the delegates did discuss the concept of beneficial uses in regard to water rights. Section 13 of article VIII, relating to water rights, contains the same "subject to preferences among beneficial uses" language that is contained in the sustained yield section. The delegates understood preference among beneficial uses to allow the state to choose among competing beneficial uses of water in order to achieve the greatest public good, even if it meant eliminating other existing, vested beneficial uses of water, provided that the owner of those rights are compensated for the loss of the rights. Commentary on Article on State Lands and Natural Resources, 6 Proceedings of the Alaska Constitutional Convention at 102. Thus the delegates understood that the concept of preferences among beneficial uses would also allow the state to make reasoned decisions to prefer certain renewable resources over other renewable resources to achieve a more beneficial public purpose. The authority to establish preference among beneficial uses may permit the state to harvest hatchery fish without providing for a sustained yield from the hatchery, provided that those who have vested rights in hatchery fish are compensated for those rights that are taken by the state.

The ability of the state to establish preferences among beneficial uses is reflected in AS 16.10.430(b) which allows the commissioner of fish and game to terminate the

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operation of a hatchery in the best interests of the public, if the adverse effects of the operation of the hatchery are irreversible and cannot be mitigated.

If I can provide further assistance, please advise.

GU:pl
91-235.plm

MICHAEL A. D. STANLEY

ATTORNEY AT LAW

OFFICE: 130 SEWARD STREET, SUITE 413
MAILING: P.O. BOX 020449, JUNEAU, ALASKA 99802

PHONE: (907) 586-6077
FAX: (907) 463-2511

DATE: February 28, 1991

TO: Kate Troll, Executive Director
Southeast Alaska Seiners

FROM: Michael A. D. Stanley *MS*

SUBJ: Department of Law Opinion Re Management Of Fisheries
For Hatchery Broodstock And Cost Recovery

You have asked me to review an opinion authored by Assistant Attorney General Stephen White, dated August 1, 1990, concerning the legal authority of the Board of Fisheries ("Board") and the Alaska Department of Fish and Game ("ADF&G") to manage fisheries for return of hatchery broodstock and cost recovery.

This memo is not intended as a lengthy analysis of Mr. White's conclusions or the issues presented, but is instead meant to identify questions raised by his opinion.

Briefly stated, White's conclusions are as follows:

1. The Board has the authority and, under article VIII, section 4 of the Alaska Constitution (the sustained yield clause), the obligation to manage fisheries to provide broodstock to hatcheries.
2. The Board has the authority to allocate fish to nonprofit hatcheries for cost recovery, as a subgroup of commercial users.
3. Like the Board, ADF&G has the authority and the obligation to use its management powers -- i.e., its emergency order authority -- to assure return of broodstock to hatcheries.
4. ADF&G does not have clear authority to use its emergency order authority to manage for cost recovery, which is a form of allocation among competing users, but could achieve such result
 - a. by working in conjunction with the Board (e.g., receiving a delegation of the Board's authority or implementing a Board regulation requiring such allocation), or
 - b. by seeking legislation that clearly establishes such power.

DISCUSSION

The difficulty I have with Mr. White's opinion is not so much what he says, but what he doesn't say; that is, assumptions or legal inferences that are implicitly made but not discussed. Once these are understood, it can be seen that his conclusions regarding the Board's and ADF&G's authority to manage for broodstock and cost recovery are subject to some question.

1. Are Hatchery Stocks Subject To Article VIII?

White's memo is premised on the assumption that hatchery fish are necessarily subject to the provisions of article VIII of the Alaska Constitution. This leads him, among other things, to conclude that the Board and ADF&G are required to manage fisheries for return of hatchery broodstock, just the same as they are required to manage for escapement of wild stocks. I believe there is reason to question this assumption.

Article VIII does not use a single term for what it covers, but all seem to have a similar meaning: "natural" resources, resources in their "natural state," and "replenishable resources belonging to the state." The question is, do these terms encompass man-made hatchery fish? Put another way, does the state "own" hatchery fish in the same way as it "owns" wild fish and game. If the answer to that question is no, then it may well be that hatchery fish are not subject to the requirements of article VIII at all.

I have not studied this "ownership" question for hatchery stocks at length, but I have run across items that suggest they might be different from wild stocks. For instance, in the commentary on what became section 3 of article VIII (the common use clause), the framers indicate that it "does not apply to the domestication of fur-bearing animals or other animals subject to intensive culture, to fish in private ponds, or to registered trap lines if authorized by law." Commentary on Article on State Lands and Natural Resources, January 16, 1956, Alaska Constitutional Convention Proceedings, Part 6, Appendix V, p. 98 (emphasis mine). Although the examples mentioned do not include hatchery fish, a common thread is creatures which man plays a substantial role in propagating.

Further, it could be argued that the legislature itself, when it passed the statutes authorizing private nonprofit hatcheries, did not view hatchery fish as subject to article VIII. As White points out, AS 16.10.440(a) provides that hatchery fish are "available for common use and are subject to regulation under applicable law in the same way as fish occurring in their natural state." However, this legislation would not have been necessary if hatchery fish were already believed to be subject to article VIII. The very fact that

AS 16.10.440 was enacted suggests that, in a constitutional sense, hatchery fish may be different from wild stocks.

Similarly, the sustained yield clause surely prohibits the Board or ADF&G from extinguishing a wild run. Yet, under certain circumstances hatchery permits may be revoked and production stopped. AS 16.10.430. Assuming hatchery fish were subject to section 4's command to sustain production, wouldn't terminating operation of a hatchery likewise be a constitutional violation? The answer may be that section 4 does not apply to hatchery fish.

The point simply is, White's conclusion that the Board and ADF&G are constitutionally mandated to manage for broodstock, just as they are required to manage for escapement of wild stocks, is subject to some question or, at the least, further analysis.

2. Are Nonprofit Hatcheries Engaged In Commercial Fishing?

In concluding that the Board can allocate fish to private nonprofit hatcheries for cost recovery, White states that "we know of no reason why they could not be considered a subgroup of commercial users and thus be targeted for allocations like any other distinct subgroup of commercial users." He conspicuously fails to refer to the definition of "commercial fishing" in articulating this premise. "Commercial fishing" is defined in AS 16.05.940(5) as

the taking, fishing for, or possession of fish, shellfish, or other fishery resources with the intent of disposing of them for profit, or by sale, barter, trade, or in commercial channels...

Nonprofit hatcheries do not take cost recovery fish "for profit." Are such fish nonetheless taken "with the intent" of disposing of them "by sale...or in commercial channels?" Although it could be argued that they are, that leads to a fairly expansive definition of commercial fishing. Salmon derbies possess fish with the intent of selling them; are they engaged in commercial fishing, too? Could the Board make an allocation to a fishing derby as subgroup of commercial users? At some point such an interpretation of "commercial fishing" becomes rather strained.

The definition of "commercial fisherman" in AS 16.10.940(4) may also provide guidance. That term is defined in terms of an "individual" -- i.e., a natural person -- and would not appear to include a nonprofit corporation.

Thus, there is a question whether nonprofit hatcheries are indeed engaged in "commercial fishing." If not, then White's conclusion that they may be the recipients of an allocation is undermined.

3. May Nonprofit Hatcheries Receive An Allocation?

The conclusion that the Board can allocate hatchery fish to a hatchery for cost recovery is, as White's memo states, "based upon characterizing private, nonprofit hatcheries as another type of commercial subgroup." I discussed above my doubts that hatcheries can really be said to be engaged in "commercial fishing."

There is another basis for questioning whether hatchery fish can be the subject of a specific allocation to a hatchery. AS 16.10.440(a) provides that hatchery fish are subject to regulation in the same manner as wild stocks "until they return to the specific location designated by the department for harvest by the hatchery operator." This suggests two things: (1) it is the department, not the Board, which is responsible for "allocating" hatchery fish to a hatchery through designation of special harvest areas, and (2) such allocation occurs only after those fish have traversed the common property fisheries and returned to the specific location designated for hatchery harvest. This statutory scheme is circumvented if the Board takes it upon itself to make an allocation to a hatchery prior to those fish returning to the designated area, while they are still in the common property fisheries.

Similarly, the statute which governs allocation of fisheries resources -- AS 16.05.251(e) -- does not really square with the idea of an allocation to a hatchery. The various factors which may be considered as allocation criteria are all tied to the term "fishery." But the definition of "fishery" in AS 16.05.940(12) does not include a hatchery. This suggests that a hatchery was never intended as the recipient of an allocation by the Board under AS 16.05.251(e).

Thus, the structure of applicable legislation suggests that hatchery operators may receive an allocation only through the procedures set forth in AS 16.10.440 (after leaving the common property fishery and in an area designated by ADF&G) and not from the Board pursuant to AS 16.05.251(e).

I must emphasize that the foregoing -- especially the discussion of the constitutional issue -- are not intended as definitive legal advice on whether the Board or ADF&G have the authority and/or the obligation to manage fisheries in order to assure the return of broodstock to nonprofit hatcheries or to provide for cost recovery. More analysis remains to be done. But I do think that this points up some significant problems with the Department of Law's opinion.

MISCELLANEOUS LETTERS

A. W. BRINDLE
H. A. BRINDLE

PROCESSORS OF
CHOICE ALASKA SEAFOOD
SINCE 1912

Wards Cove Packing Company

PHONE (206) 323-3200
TELEX 328759

88 E. HAMLIN STREET
P.O. BOX C-5030
SEATTLE, WA 98105-0030

Day Fax (206) 323-3200 Ext. 258
Night Fax (206) 323-3204

April 24, 1991

The Honorable Dick Eliason
Alaska State Senate
P.O. Box V
Juneau, Alaska 99811

Dear Senator Eliason:

When we last met in Juneau, you asked me to elaborate on the concerns I expressed to you over the direction of the salmon hatchery programs in Alaska.

It is my understanding scientists are in general agreement that the long-term status of Columbia River salmon has not been enhanced by the use of hatcheries. There now appears to be a much stronger emphasis being placed on utilizing wild stocks in association with environmental corrective measures to improve the status of the various runs. Considerable apprehension is evident concerning the impact past hatchery practices have had on the genetic integrity of wild stocks.

As you know, hatcheries had been viewed many years ago as the solution to offset the adverse impact of dams, irrigation, pollution and other habitat degradation. Alaska fortunately is not plagued with these environmental problems. It is therefore with serious concern that I ask you to investigate current enhancement practices taking place throughout Alaska. The wild or natural stocks of salmon of most regions in Alaska have been at record or near record levels in recent years. The maintenance of these wild stocks is imperative for the long-term stability of the salmon industry.

There is growing concern that the continued growth in the release of hatchery pinks in Prince William Sound, while enhancing the numbers of fish available to the common property fishery, may be related to the recent decline of wild pinks in that area. This is a concern that I believe needs to be addressed as I do not feel that it was, nor should it have been, the intention that the hatchery program should be detrimental to the maintenance and enhancement of Alaska's wild stocks.

The continued growth in release of hatchery pinks may also have a serious negative impact on the economics of commercial fisheries.

NOTE :
BY SEE ATTACHED
RAY HILBORN STUDY

The Hon. Dick Eliason
April 24, 1991
Page 2

Alaskan salmon production is now at record or near record levels even in areas where there is little or no hatchery enhancement. The addition of substantial numbers of hatchery fish to a market where there is already potential surplus wild production can only further reduce the value of the fish to the detriment of both the harvesting and processing sectors. It does little good to produce fish for the sake of production. Market conditions must be taken into account lest the value of fish fall below that which is affordable to harvest.

Another area of concern that needs to be addressed is the experimental plan to produce female only pink salmon runs. The rationale behind this program is apparently based on the theory that the primary value in the female pink salmon is the roe. While roe is an important component in the value of female salmon, there is a very limited market for processed salmon roe, particularly that from pink salmon. Any program which leads to a significant increase in roe production will lead to further weakening of that market, again to the financial detriment of the harvesting and processing sectors.

Finally, there is the growing issue of genetic drift and genetic selectivity. Are the hatchery programs endangering the genetic diversity of Alaska's wild stocks? I will not expand on this issue as it is highly technical and of growing concern within the scientific community. However, it needs to be addressed.

I am enclosing a copy of a paper by Ray Hilborn which also addresses the issue of hatchery fish and the effect on wild stocks. I hope that after review of that paper and considering the matters raised in this letter you will agree with me that the Alaska hatchery program needs to be reviewed. It would be my suggestion that a forum be convened, perhaps under the sponsorship of the University of Alaska, where members of the fishing community could gather to discuss in depth the future direction of Alaska's salmon hatchery program.

Thank you for your consideration of my views. If you have any questions I will be happy to answer them.

Sincerely,



Alec W. Brindle

AWB:kmh
Enclosure

Hatcheries and the future of salmon in the Northwest

Copyright 1990
Ray Hilborn

Below my office window at the School of Fisheries, University of Washington, is our small salmon hatchery. Every fall thousands of school children come to see the chinook and coho salmon return to their natal waters. Our graduate students show them the fish and demonstrate how eggs are taken, mixed with sperm, and magically the life cycle of salmon is renewed. These tours are the most significant public relations activity of our school, and through these tours most Seattle school children are brought into their most direct touch with a major part of the environmental heritage of the northwest.

It was only after three years of seeing the annual cycle of school visits that I began to wonder if we were really doing the right thing. Hatchery tours are common throughout the Northwest and I fear that the message they convey is that 1) salmon come from hatcheries, 2) habitat loss and pollution are so widespread that natural spawning fish are dying out or are extinct, and 3) the long term survival of salmon depends upon hatchery technology. My daughter's fourth grade teacher was planning a field trip to a state run hatchery for a tour. He was unaware that only 20 minutes away between 100,000 and 200,000 natural spawning sockeye salmon can be seen in a few miles of the Cedar river -- that indeed most of our rivers still support runs of wild spawning salmon.

I believe that fisheries scientists share a collective responsibility for the public belief that the maintenance of salmon runs depends upon hatchery operation. This belief is particularly pernicious because it inexorably leads to the acceptance of hatcheries as a mitigative measure for habitat loss and dam construction. This view can be expressed as "If the wild stocks are doomed anyway, lets just build the hatcheries and get it over with." This belief is not just found among the general public, many professional fisheries scientists also believe that the future of salmonids is in hatcheries. They believe that resources that could go into habitat protection or fisheries management would be better spent on artificial propagation.

The fisheries community in general is not aware that artificial propagation in the Northwest has failed to live up to expectations, nor are they aware that artificial propagation poses a substantial, and perhaps the major, threat to the long term viability of our salmon heritage.

It is not only for Pacific salmon that many believe that the future of fisheries lies with aquaculture. Indeed throughout the world most management agencies seem to be relying on some form of artificial propagation to "rebuild" fish stocks that are depleted due to poor fisheries management or poor habitat management. Artificial propagation has been proposed for such diverse species as herring, tuna, abalone and giant clams -- the list is nearly endless. Thus the lessons we have learned with salmonids in the our part of North America are of direct and important relevance around the world.

Are Hatcheries Sustainable?

Fisheries management is a long term proposition, our responsibility is to assure that the fisheries resource will be maintained by our generation for the next generation. We need to assure that 20, and even 100 years from now there will still be salmon in our rivers. This means that the time horizon for fisheries scientists and managers must be much longer than the engineering horizon for dams on our rivers. Once the dams have rotted away or been taken down, we must be sure we will still have fish to use the rivers. While this may seem far-fetched, removal of the Elwah dam on the Olympic Peninsula, and the Hetch Hetchy dam in California are now being considered.

If hatcheries are to be used as mitigative measures, we must ask not only do they work now, but will they continue to work, and will they permit the maintenance of natural runs? Unfortunately, most evidence suggests that while hatcheries may work initially, their success decreases after a few years. The figure below shows the trends in survival for two major hatchery programs, coho in Oregon, and chinook in British Columbia. In each case, as the hatcheries programs have developed, the success of the hatcheries has decreased. The B.C. chinook example is an extreme point. Although more hatcheries were built throughout the 1980's so that by the mid 1980s there were ten times more chinook smolts released than in the mid 1970's, there were no more hatchery chinook being caught or escaping. This pattern of declining survival of hatchery reared fish is found in nearly every hatchery program in North America.

There is no well accepted explanation for the declining survivals from hatcheries, it may be genetic changes, predator build up, disease accumulation, or a host of other potential problems. The cause doesn't matter as much as the conclusion -- hatchery production is probably not sustainable over decades. To assume it will work for a century is a bold assumption indeed and one that puts our the salmon resources of our children at great risk.

Impacts of hatchery fish on wild stocks

I believe we must rely on wild fish for the long term maintenance of our salmon populations. Wild fish are our heritage, and we must, in turn, pass it on to our descendants. Artificial production poses a great threat to the maintenance of wild fish. This threat comes in at least four forms, direct competition for food and other resources between wild and artificial fish, predation of artificial fish on wild fish, genetic dilution of wild fish by artificial fish allowed to spawn in rivers and streams, and increased fishing pressure on wild stocks due to artificial production.

There is ample evidence that salmonids compete for resources at most stages of their life history. The figure below shows the survival rate of sockeye salmon from Babine Lake, a tributary of the Skeena River in British Columbia. The number of juvenile sockeye leaving Babine Lake was increased by artificial spawning channels. The more fish that left Babine Lake and swam down the Skeena River, the smaller proportion of them survived their ocean life. A major impact of this change, is that the wild runs from the Skeena River have declined approximately 50%. Presumably the other sockeye on the Skeena were affected by the competition that is so obvious in the Babine Lake data. Salmon compete for food and space in freshwater and in the ocean. We should expect that as we increase artificial production they will

compete with wild fish, and the survival of wild fish will decrease -- it is folly to assume this will not happen.

Proponents of artificial propagation like to think of their hatcheries "giving a boost" to the wild stocks, particularly by allowing surplus hatchery fish to spawn in the wild. These extra spawners, turned away from the hatchery are hoped to add to the natural spawning population. Accumulating evidence suggests that the hatchery fish often do poorly in the wild, and that by reproducing with wild fish, the hatchery fish cause poorer survival of offspring of wild parents. Two mechanisms explain this, first hatchery managers select for fish that do well in hatcheries; that is fish that can hatch in plastic trays and learn to feed on a man-made diet. In the wild, fish must find mates, lay eggs in gravel, avoid predators, and find natural food. The requirements of a successful hatchery fish are very different from a successful wild fish and it should be no surprise that fish selected for a hatchery may do poorly when facing the rigors of a real river. Secondly, hatchery practice in the past often involved taking fish from one watershed and using them in a hatchery elsewhere. The thousands of years of natural selection for particular rivers have been swamped.

When hatcheries allow surplus fish to spawn in the wild, they are allowing all of these genes that have been brought in from elsewhere and have been selected for hatchery life, to dilute the naturally adapted genes of the wild fish. The net result may be that after a few generations there are no more wild fish -- we will, and indeed in many places now do have, mongrel fish not well adapted to any particular river. The great genetic diversity of the Northwest of 100 years ago is being lost at an horrifying rate, and hatcheries are accelerating this loss.

When hatcheries have a poor return of adults, they often capture wild fish to use as brood stock. This "creek robbing" would be a criminal offense if conducted by ordinary citizens and they would be called poachers. However, when conducted by hatchery staff it is somehow considered beneficial for the resource. I know of one case where a hatchery had an unusually poor return, and the hatchery staff diverted half of the wild spawning stock into the hatchery for an egg take. It then turned out they had a surplus of eggs, and they sold the surplus to private salmon farms.

When hatcheries are successful at producing adult fish, the potential harvest rate is very high, often 95% of the returning fish can be harvested because so few adults are needed for eggs. There is wide concern throughout the Northwest that we have allowed our fisheries harvest rates to match the potential productivity of hatchery stocks, causing wild stocks to be overfished. In some places this is obvious, parts of Puget Sound such as the Nooksack River, have been declared off limits for wild fish, and the harvest rates are so high that no wild fish make it back to spawn. Just north of Puget Sound, in Canadian waters between Vancouver Island and the mainland, harvest rates on coho salmon are as high as 95%, sustainable only by the most successful hatchery stocks. The net result of these high harvest rates is that as hatchery production has increased, wild stocks have declined, and the Canadians have no more coho now than they did 15 years ago, but now many of their coho come from hatcheries instead of natural streams.

The Real threat: the technological fix syndrome

The real danger of hatcheries and other forms of artificial production is that they provide an excuse for habitat loss and poor fisheries management. If we believe in hatcheries,

then we can allow the rivers to be dammed, silted and destroyed. Just mitigate with a hatchery. While it seems we should know better by now, the lessons haven't really sunk in. New hatcheries are still being built in Washington and Oregon. B.C. and Alaska have both embarked on large scale hatchery programs despite the fact that their catches from wild fish are now at or above historic highs.

Even more dangerous, is the spread of the technological fix syndrome. If hatcheries don't work now, we will try some other form of hatchery technology. The current new idea is "supplementation" where eggs are incubated in a hatchery and then spread throughout a watershed to rear naturally. The technological fix has spread beyond salmon hatcheries -- now developers throughout the west coast want to build "artificial" habitat for lost wetlands. This is where the fisheries community must accept its responsibility, we have been extremely eager to help in the design and testing of new technology. Indeed fisheries schools have been, in effect, salesmen of the technology.

Great Hatchery Successes

Whenever I speak out against the hatchery fetish, people ask about the great successes -- trout in freshwater lakes, salmon in the Great Lakes, and the Japanese chum salmon hatcheries. These programs are undoubtedly successful. Introduction of exotic species or monoculture often works reasonably well. Rabbits did very well in Australia, starlings do well in North America. The widespread introduction of trout around the world has produced some valuable recreational fisheries. However, in most cases this has amounted to the replacement of indigenous species by new species, not boosting the production of an existing wild population. Indeed my first response to each of these examples is that in every case the wild species that were there before have been almost totally replaced by the introduced or artificially produced fish.

Even with these great successes, we see echoes of our own concern here. Trout management is going away from hatcheries to nurturing of habitat for wild fish. This is documented in Ray Whites recent article in Trout, "We're going wild: a 30-year transition from hatcheries to habitat." In the Great Lakes, where introduced Pacific salmon generated a major recreational fishery, concern is mounting about declining hatchery survivals -- they just don't know if their salmon fishery is sustainable. The highly successful chum fishery in northern Japan has produced large catches of chum salmon for Japanese fishermen, but the total yield of salmon from northwest Pacific waters has not increased, it is quite possible that Japanese chum have simply replaced the naturally occurring mix of 6 species of salmon with a single species.

What should be done.

Is there a place for hatcheries? I really don't know. Certainly if all hatcheries were now closed, the catch of chinook and coho salmon in the Northwest would drop greatly. We could certainly expect some wild stock production to rebound, particularly if we devoted some of the resources that have gone for hatcheries to habitat protection and improvement. Closing all hatcheries now would certainly cause a lot of pain to recreational, Indian and commercial fishermen -- but it might ensure the long-term survival of the fish and the fishermen who depend upon them.

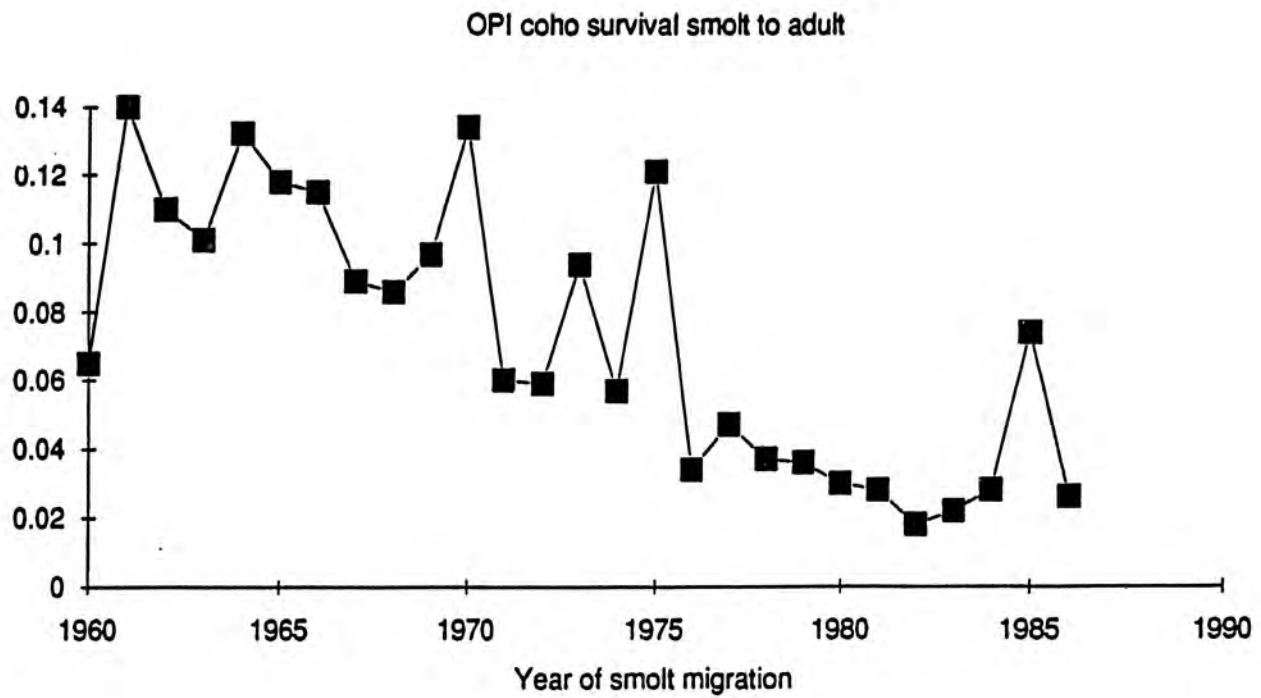
On the Columbia River, where much of the habitat has been lost, and the series of dams poses a severe barrier to downstream migration of juvenile salmon, most people believe that we must have hatcheries. I am not convinced. The most successful salmon stock on the Columbia is the wild spawning chinook of the Hanford Reach, the one free flowing section of the main river. If we devoted all of the resources that now go into hatcheries on the Columbia to improving the downstream passage of fish, and to habitat protection, we might be quite surprised what the natural spawning fish would do if given a chance.

I do believe we should declare a moratorium on building of new hatcheries. We have taken an enormous gamble with our children's heritage. Now we must find out what we are doing to the wild fish, how to preserve them, and rebuild them. Michael Goodman has proposed that hatcheries must have a federal license that is reviewed periodically. Hatcheries that don't produce adult fish, and those that cause serious adverse impacts on wild fish would be shut down. I believe this is an excellent proposal.

As I look out my window at another group of school children touring our hatchery I wonder what kind of salmon their children will see. Will their world be one of high technology, with genetically engineered fish returning to computer controlled hatcheries, or will we maintain and improve our wild streams? Will their classes visit streams instead of hatcheries? Instead of imitating hatcheries by rearing fish in classrooms will the school children of the future adopt sections of streams for protection, know what wild spawning salmon need and make sure they have it?

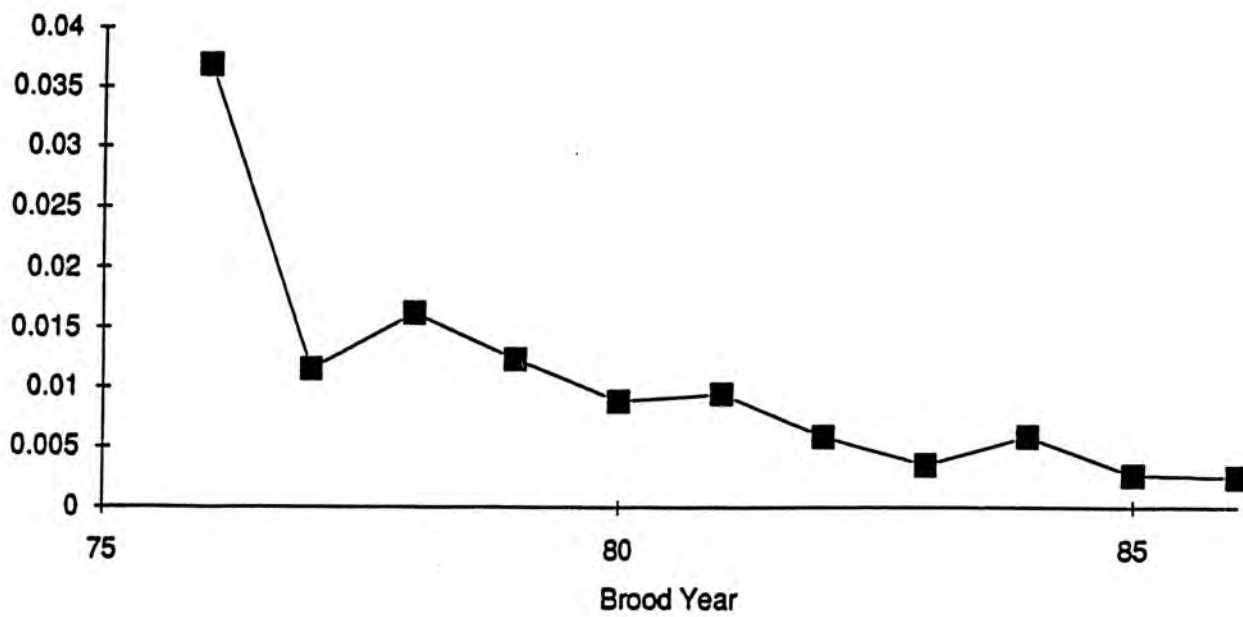
Further Readings

Those interested in knowing more about wild and hatchery fish should read "Mountains in the Clouds" by Bruce Brown, "We're going wild" a 30-year transition from hatcheries to habitat" by Ray J. White Trout Magazine, Summer 1989, and "Preserving the genetic diversity of salmonid stocks: a call for federal regulation of hatchery programs" by Michael L. Goodman, in Environmental Law Vol 20.



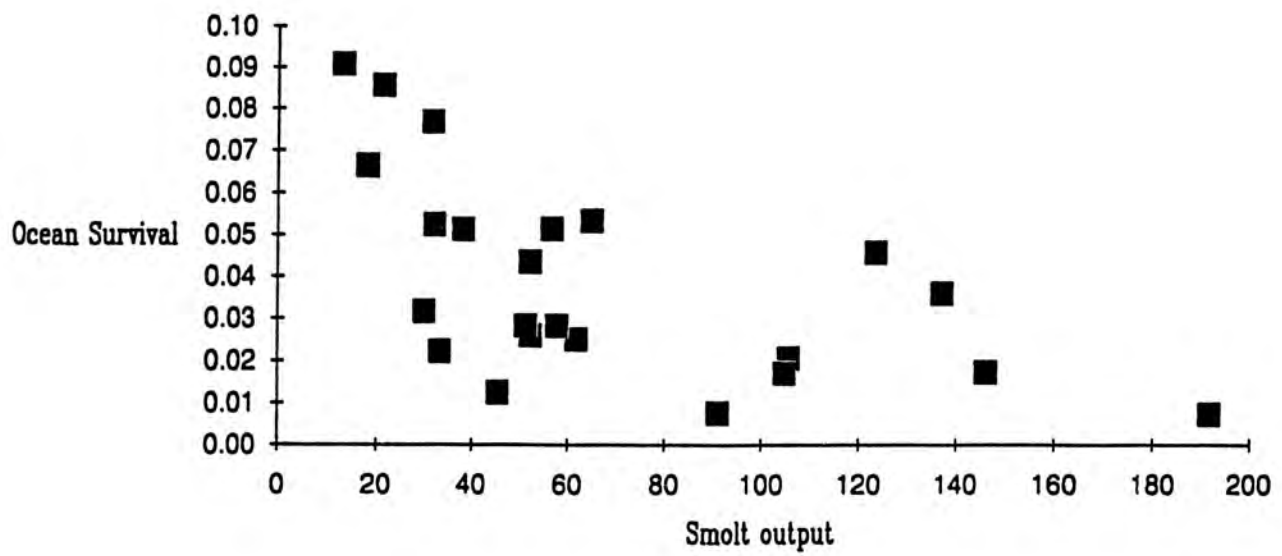
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Canadian Hatchery Chinook Contribution Rate



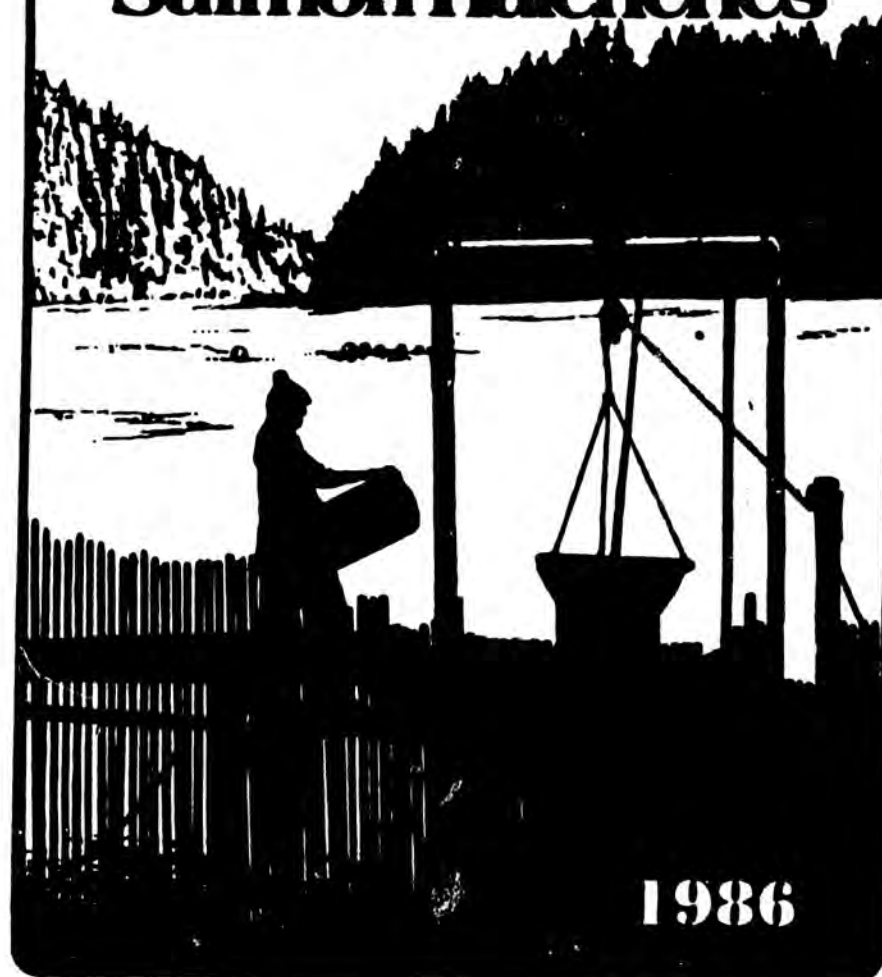
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Babine lake 1959-1981



PNP LAWS & REGULATIONS

**Alaska Statutes
and Regulations
for
Private Nonprofit
Salmon Hatcheries**



Sec. 43.76.028. LIABILITY FOR TAX ON SALMON SHIPPED FROM STATE. (a) The owner of salmon removed from the state is liable for payment of the salmon enhancement tax imposed by AS 43.76.010 or AS 43.76.011 if, at the time the salmon are removed from the state, the tax payable on the salmon has not been collected by a buyer.

(b) If the owner of the salmon is liable for payment of the salmon enhancement tax under (a) of this section, the owner shall comply with the requirement of AS 43.76.025(b) to report the owner's liability for payment of the tax. (§ 18 ch 117 SLA 1981)

Sec. 43.76.030. ACCOUNTING OF FINANCING RECEIVED AS A RESULT OF THE SALMON ENHANCEMENT TAX. A qualified regional association requesting state financial assistance in accordance with AS 43.76.025(c) shall submit an annual financial report to the Department of Commerce and Economic Development on a form provided by the Department of Commerce and Economic Development. The Department of Commerce and Economic Development may, by regulation, require that a qualified regional association use a uniform system of accounting. A qualified regional association requesting state assistance shall submit an annual budget to the Department of Commerce and Economic Development on or before a date specified by the Department of Commerce and Economic Development. (§ 3 ch 154 SLA 1980)

Sec. 43.76.040. DEFINITION. In this chapter, unless the context otherwise requires, "buyer" means a person who acquires possession of salmon from the person who caught the salmon regardless of whether there is an actual sale of the salmon but excluding a transfer to a person engaged solely in interstate transportation of goods for hire. (§ 19 ch 117 SLA 1981)

ALASKA DEPARTMENT OF FISH AND GAME

**SELECTED ALASKA STATUTES
and REGULATIONS
for
PRIVATE NONPROFIT SALMON
HATCHERIES**

**BILL SHEFFIELD, Governor
DON W. COLLINSWORTH, Commissioner**

1986 Edition

ALASKA DEPARTMENT OF FISH AND GAME
FRED Division
Private Nonprofit Hatchery Program
P.O. Box 3-2000
Juneau, Alaska 99802

This publication is for informational use. The regulations herein are selected from official regulations contained in the Alaska Administrative Code, on file with the Office of the Lieutenant Governor. Some of the regulations in this booklet may be changed by emergency regulation or order at any time. Supplementary changes to these regulations will be available at the offices of the Alaska Department of Fish and Game and the Alaska Department of Commerce and Economic Development.

(3) a majority of the eligible interim-use permit and entry permit holders who vote in the election cast a ballot for the termination of the salmon enhancement tax;

(4) the qualified regional association provides notice of the election in accordance with AS 43.76.015 within two months after receiving notice from the commissioner of commerce and economic development that a valid petition under (1) of this subsection has been received. (§ 2 ch 154 SLA 1980; am § 15 ch 117 SLA 1981)

Effect of Amendments. The 1981 amendment added "or 43.76.011" following "AS 43.76.010" in subsection (a).

Sec. 43.76.025. COLLECTION OF TAX AND DISPOSITION OF PROCEEDS. (a) A buyer who acquires fisheries resources which are subject to the salmon enhancement tax imposed by AS 43.76.010 or AS 43.76.011 shall collect the salmon enhancement tax at the time of purchase, and shall remit the total salmon enhancement tax collected during each month to the Department of Revenue by the last day of the next month.

(b) A buyer who collects the salmon enhancement tax shall

(1) maintain records reflecting the region designated under AS 16.10.375 in which the fishery resource was caught; and

(2) report to the Department of Revenue by March 1 of each year the total value, as defined in AS 43.75.140(8), of the salmon caught in each region designated under AS 16.10.375 which the buyer has acquired during the preceding year.

(c) The salmon enhancement tax collected under AS 43.76.010—43.76.030 shall be deposited in the general fund. The legislature may make appropriations based on this revenue to the Department of Commerce and Economic Development for the purpose of providing financing for qualified regional associations. The legislature may base an appropriation for a qualified regional association operating within a region designated under AS 16.10.375 on the value of the fisheries resources caught in that region rather than the value of the fisheries resources sold in that region if those values differ. (§ 2 ch 154 SLA 1980; am §§ 16, 17 ch 117 SLA 1981)

Effect of Amendments. The 1981 amendment substituted "buyer" for "processor" and substituted "acquires" for "buys" in subsection (a). In subsection (b), the amendment substituted "buyer" for "processor" in the introductory language and paragraph (2) and substituted "acquired" for "purchased" preceding "during the preceding year" in paragraph (2).

(D) provide an effective date for the levy of the salmon enhancement tax; and

(E) indicate the date on which returned ballots must be postmarked in order to be counted.

(4) The ballots shall be returned by mail and shall be counted by the commissioner of commerce and economic development or by a person approved by the commissioner of commerce and economic development.

(d) The commissioner of commerce and economic development shall certify the results of an election under this section if the commissioner determines that the requirements of (a) and (c) of this section have been satisfied.

(c) Except as provided in AS 43.76.020(b)(2), an election to terminate a salmon enhancement tax shall be conducted under the same procedures established under (a), (c) and (d) of this section for an election to approve a salmon enhancement tax.

(f) In this section, "eligible interim-use permit and entry permit holder" means an individual who, 90 days before the date ballots must be postmarked to be counted in an election under this section, is listed in the records of the Alaska Commercial Fisheries Entry Commission as the legal owner of an interim-use permit or an entry permit which authorizes him to fish commercially in an administrative area established by the Alaska Commercial Fisheries Entry Commission under AS 16.43.200, which is included, in whole or in part, in the region in which the election is held. (§ 2 ch 154 SLA 1980)

Sec. 43.76.020. TERMINATION OF SALMON ENHANCEMENT TAX. (a) The salmon enhancement tax levied under AS 43.76.010 or AS 43.76.011 may be terminated by the commissioner of revenue upon majority vote at an election held under AS 43.76.015 in the region in which the salmon enhancement tax is levied.

(b) A salmon enhancement tax shall be terminated by the commissioner of revenue under (a) of this section following an election in a region if

(1) a petition is presented to the commissioner of commerce and economic development requesting termination of the salmon enhancement tax which is signed by at least 25 percent of the number of persons who voted under AS 43.76.015 in the election approving the salmon enhancement tax in the region;

(2) an election is held in accordance with AS 43.76.015. The ballot shall ask the question whether the salmon enhancement tax for the region shall be terminated; the ballot shall be worded so that a "yes" vote is for continuation of the salmon enhancement tax and a "no" vote is for termination of the salmon enhancement tax;

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(b) The salmon enhancement tax is levied under AS 43.76.010 or 43.76.011 in a region on the effective date stated on the ballot if:

(1) it is approved by a majority vote of the eligible interim-use permit and entry permit holders voting in an election held under this section in the region; and

(2) the election results are certified by the commissioner of commerce and economic development.

(c) In conducting an election under this section, a qualified regional association shall adopt the following procedures:

(1) The qualified regional association for the region shall hold at least one public meeting not less than 30 days before the date on which ballots must be postmarked to be counted in the election to explain the reason for the proposed salmon enhancement tax and to explain the registration and voting procedures to be used in the election. The qualified regional association shall provide notice of the meeting by

(A) mailing the notice to each eligible interim-use permit and entry permit holder;

(B) posting the notice in at least three public places in the region; and

(C) publishing the notice in at least one newspaper of general circulation in the region at least once a week for two consecutive weeks before the meeting.

(2) The qualified regional association shall mail two ballots to each eligible interim-use permit and entry permit holder. The first ballot shall be mailed no more than 45 days before the date ballots must be postmarked to be counted in the election. The second ballot shall be mailed no less than 15 days before the date ballots must be postmarked to be counted in the election. The qualified regional association shall adopt procedures to insure that only one ballot from each eligible interim-use permit and entry permit holder is counted in the election.

(3) The ballot shall

(A) indicate whether the election relates to a salmon enhancement tax under AS 43.76.010 or to a salmon enhancement tax under AS 43.76.011;

(B) ask the question whether the salmon enhancement tax shall be levied;

(C) indicate the boundaries of the region in which the salmon enhancement tax will be levied;

Effect of Amendments. The 1981 amendment, in subsection (a), substituted "removes from the state or transfers to a buyer in the state" for "sells to a processor licensed under AS 43.75.011" at the end of the first sentence, and in the second sentence, substituted "the buyer" for "the processor" preceding "shall collect," deleted "of" following "at the time," and substituted "salmon is acquired by the buyer" for "sale."

Sec. 43.76.011. TWO PERCENT SALMON ENHANCEMENT TAX. (a) A person holding a limited entry permit under AS 16.43 shall pay a salmon enhancement tax at the rate of two percent of the value of salmon, as defined in AS 43.75.140(8), that the person removes from the state or transfers to a buyer in the state. The buyer shall collect the salmon enhancement tax at the time the salmon is acquired by the buyer.

(b) A two percent salmon enhancement tax may only be levied or collected under (a) of this section:

(1) in a region designated by the commissioner of fish and game for the purpose of salmon production under AS 16.10.375;

(2) if there exists in that region an association determined by the commissioner of fish and game to be a qualified regional association under AS 16.10.380; and

(3) if the qualified regional association approves the two percent salmon enhancement tax under AS 43.76.015. (§ 2 ch 154 SLA 1980; am § 14 ch 117 SLA 1981)

Effect of Amendments. The 1981 amendment, in subsection (a), substituted "removes from the state or transfers to a buyer in the state" for "sells to a processor licensed under AS 43.75.011" in the first sentence and in the second sentence, substituted "the buyer" for "the processor" preceding "shall collect," deleted "of" following "at the time," and substituted "salmon is acquired by the buyer" for "sale" following "time the."

Sec. 43.76.015. ELECTION TO APPROVE OR TERMINATE SALMON ENHANCEMENT TAX. (a) A qualified regional association may conduct an election under this section after the commissioner of commerce and economic development approves:

(1) the notice to be published by the qualified regional association;

(2) the ballot to be used in the election; and

(3) the registration and voting procedure for the approval or termination of the salmon enhancement tax.

ALASKA STATUTES

TITLE 16. FISH AND GAME

Chapter 10. Fisheries and Fishing Regulations

Article 8. Salmon Hatcheries

Section

- 375. Regional salmon plan
- 380. Regional associations
- 400. Permits for salmon hatcheries
- 410. Hearings before permit issuance
- 420. Conditions of a permit
- 430. Alteration, suspension or revocation of permit
- 440. Regulation
- 443. Department assistance and cooperation
- 445. Egg sources
- 450. Sale of salmon and salmon eggs by hatchery
- 460. Inspection of hatchery
- 470. Annual report
- 475. Definitions

Editor's Note. Section 1 ch 111 SLA 1974 provides: "It is the intent of this act to authorize the private ownership of salmon hatcheries by qualified non-profit corporations for the purpose of contributing, by artificial means, to the rehabilitation of the state's depleted and depressed salmon fishery. The program shall be operated without adversely affecting natural stocks of fish in the state and under a policy of management which allows reasonable segregation of returning hatchery-reared salmon from naturally occurring stocks."

Sec. 16.10.375. REGIONAL SALMON PLAN. The commissioner shall designate regions of the state for the purpose of salmon production and have developed and amend as necessary a comprehensive salmon plan for each region, including provisions for both public and private nonprofit hatchery systems. Subject to plan approval by the commissioner, comprehensive salmon plans shall be developed by regional planning teams consisting of department personnel and representatives of the appropriate qualified regional associations formed under §380 of this chapter. (§ 2 ch 161 SLA 1976; am § 2 ch 154 SLA 1977)

Sec. 16.10.380. REGIONAL ASSOCIATIONS. (a) The commissioner shall assist in and encourage the formation of qualified regional associations for the

purpose of enhancing salmon production. A regional association is qualified if the commissioner determines that:

(1) it is comprised of associations representative of commercial fishermen in the region;

(2) it includes representatives of other user groups interested in fisheries within the region who wish to belong; and

(3) it possesses a board of directors which includes no less than one representative of each user group that belongs to the association.

(b) In this section "user group" includes, but is not limited to, sport fishermen, processors, commercial fishermen, subsistence fishermen, and representatives of local communities.

(c) A qualified regional association, when it becomes a nonprofit corporation under AS 10.20.005—10.20.725, is established as a service area in the unorganized borough under AS 29.03.020 for the purpose of providing salmon enhancement services. (§ 2 ch 161 SLA 1976; am § 2 ch 59 SLA 1979)

Sec. 16.10.400. PERMITS FOR SALMON HATCHERIES. (a) The commissioner or his designee may issue a permit, subject to the restrictions imposed by statute or regulation under AS 16.10.400—16.10.470, to a nonprofit corporation organized under AS 10.20, after the permit application has been reviewed by the regional planning team, for the construction and operation of a salmon hatchery.

(b) The application for a permit under this section shall be on a form prescribed by the department and be accompanied by an application fee of \$100.

(c) A hatchery permit is nontransferable. If a permit holder sells or leases a hatchery for which a permit is issued under this section, the new operator shall apply for a new permit under this section.

(d) [Repealed by § 19 ch 154 SLA 1977.]

(e) A qualified regional association formed under AS 16.10.380, if it has become a nonprofit corporation under AS 10.20, has a preference right to a permit if its proposed hatchery is provided for in the comprehensive plan for the region developed under AS 16.10.375 and the fresh water source exceeds one cubic foot per second minimum flow. Any other local nonprofit hatchery corporation approved by a qualified regional association has an identical preference right.

(f) Except for permits issued before June 16, 1976, a permit may not be issued

TITLE 43. REVENUE AND TAXATION

Chapter 76. Salmon Enhancement Tax

Section

10. Three percent salmon enhancement tax

11. Two percent salmon enhancement tax

15. Election to approve or terminate salmon enhancement tax

20. Termination of salmon enhancement tax

25. Collection of tax and disposition of proceeds

28. Liability for tax on salmon shipped from state

30. Accounting of financing received as a result of the salmon enhancement tax

40. Definition

Editor's Notes. For findings and purpose of enacting legislation, see § 1 ch 154 SLA 1980 in the Temporary and Special Acts.

Sec. 43.76.010. THREE PERCENT SALMON ENHANCEMENT TAX. (a) A person holding a limited entry permit under AS 16.43 shall pay a salmon enhancement tax at the rate of three percent of the value of salmon, as defined in AS 43.75.140(8), that the person removes from the state or transfers to a buyer in the state. The buyer shall collect the salmon enhancement tax at the time the salmon is acquired by the buyer.

(b) A three percent salmon enhancement tax may only be levied or collected under (a) of this section:

(1) in a region designated by the commissioner of fish and game for the purpose of salmon production under AS 16.10.375;

(2) if there exists in that region an association determined by the commissioner of fish and game to be a qualified regional association under AS 16.10.380; and

(3) if the qualified regional association approves the three percent salmon enhancement tax under AS 43.76.015. (§ 2 ch 154 SLA 1980; am § 13 ch 117 SLA 1981)

Editor's Notes. Section 4 ch 154 SLA 1980 provides: "The commissioner of commerce and economic development shall direct that no further royalty assessments be collected under AS 16.10.530 on or after the effective date of an election in the region of a qualified regional association that approves a salmon enhancement tax in accordance with AS 43.76.010—43.76.015."

profit hatchery permits issued by the Department of Fish and Game under AS 16.10.400—16.10.475.

(b) The commission may issue special harvest area entry permits, notwithstanding the establishment of maximum or optimum numbers under AS 16.43.240 and 16.43.290. (§ 1 ch 64 SLA 1979)

Editor's Notes. Formerly AS 16.43.335. Renumbered in 1983.

Sec. 16.43.410. TERMS AND CONDITIONS OF SPECIAL HARVEST AREA ENTRY PERMITS. (a) Special harvest area entry permits may be applied for on an annual basis and shall be issued for a term of one year. A permit is nontransferable.

(b) A special harvest area entry permit may only be issued for the applicable area designated by the Department of Fish and Game as a special harvest area.

(c) The annual fee for a special harvest area entry permit shall be specified by commission regulation under the authority of AS 16.43.160. (§ 2 ch 64 SLA 1979)

Editor's Notes. Formerly AS 16.43.337. Renumbered in 1983.

Sec. 16.43.420. DISPOSITION OF FISH. Fish caught under the authority of a special harvest area entry permit are the property of the permit holder. The permit holder may sell the fish if the proceeds are used in the manner described in AS 16.10.430. (§ 2 ch 64 SLA 1979)

Editor's Notes. Formerly AS 16.43.339. Renumbered in 1983.

Sec. 16.43.430. AUTHORIZED GEAR. For the purpose of harvesting salmon, a special harvest area entry permit holder may employ any fishing gear designated as legal gear in the applicable special harvest area by the Board of Fisheries. (§ 2 ch 64 SLA 1979)

Editor's Notes. Formerly AS 16.43.341. Renumbered in 1983.

Sec. 16.43.440. ADOPTION OF REGULATIONS. (a) Use privileges granted under AS 16.43.400—16.43.440 are subject to the regulations of the Board of Fisheries.

(b) The commission, after consultation with the Department of Fish and Game, shall adopt regulations which are reasonably necessary to implement AS 16.43.400—16.43.440. (§2 ch 64 SLA 1979)

Editor's Notes. Formerly AS 16.43.343. Renumbered in 1983.

for construction or operation of a hatchery on an anadromous fish stream unless the stream has been classified as suitable for enhancement purposes by the commissioner. The commissioner shall undertake to make such classifications in conjunction with the development of the comprehensive plan under AS 16.10.375.

(g) During the development of a comprehensive plan for a region no permit may be issued for a hatchery unless the commissioner determines that such an action would result in substantial public benefits and would not jeopardize natural stocks. (§ 2 ch 111 SLA 1974; am § 3 ch 161 SLA 1976; am §§ 3, 19 ch 154 SLA 1977)

Sec. 16.10.410. HEARINGS BEFORE PERMIT ISSUANCE. (a) At least 30 days before the issuance of a permit under AS 16.10.400, a public hearing shall be held in a central location in the vicinity of the proposed hatchery facility.

(b) Notice of the hearing shall be published in a newspaper of general circulation once a week for three consecutive weeks, with completion of the notice at least 10 days before the hearing.

(c) The hearing shall be conducted by the department, with a presentation by the permit applicant of a plan for the proposed hatchery, describing its capacity and any other relevant facts which may be of interest to the department or the public. Interested members of the public shall be afforded an opportunity to be heard.

(d) The department shall record and consider objections and recommendations offered by the public at the hearing conducted under this section. It shall respond in writing, within 10 days after the hearing is held, to any specific objections offered by a member of the public at the hearing. (§ 2 ch 111 SLA 1974)

Sec. 16.10.420. CONDITIONS OF A PERMIT. The department shall require, in a permit issued to a hatchery operator, that

(1) salmon eggs procured by the hatchery must be from the department or a source approved by the department;

(2) no salmon eggs or resulting fry be placed in waters of the state other than those specifically designated in the permit;

(3) no salmon eggs or resulting fry, sold to a permit holder by the state or by another party approved by the department, may be resold or otherwise transferred to another person;

(4) no salmon be released by the hatchery before department approval, and, for purposes of pathological examination and approval, the department shall

he notified the proposed release of salmon at least 15 days before the date of their proposed release by the hatchery;

(5) diseased salmon be destroyed in a specific manner and place designated by the department;

(6) adult salmon be harvested by hatchery operators only at specific locations as designated by the department;

(7) surplus eggs from salmon returning to the hatchery be made available for sale first to the department and then, after inspection and approval by the department, to operators of other hatcheries authorized by permit to operate under AS 16.10.400—16.10.470;

(8) if surplus salmon eggs are sold by a permit holder to another permit holder, a copy of the sales transaction be provided to the department;

(9) [Repealed by § 5 ch 110 SLA 1980.]

(10) a hatchery be located in an area where a reasonable segregation from natural stocks occurs, but when feasible, in an area where returning hatchery fish will pass through traditional salmon fisheries. (§ 2 ch 111 SLA 1974; am § 5 ch 110 SLA 1980)

Sec. 16.10.430. ALTERATION, SUSPENSION OR REVOCATION OF PERMIT. (a) If a permit holder fails to comply with the conditions and terms of the permit issued under AS 16.10.400—16.10.470 within a reasonable period after notification of noncompliance by the department, the permit may be suspended or revoked, in the discretion of the commissioner after the regional planning team for the area in which the hatchery is located is notified and granted an opportunity to comment upon the proposed suspension or revocation.

(b) If the commissioner finds that the operation of the hatchery is not in the best interests of the public, the commissioner may alter the conditions of the permit to mitigate the adverse effects of the operation, or, if the adverse effects are irreversible and cannot be mitigated sufficiently, initiate a termination of the operation under the permit over a reasonable period of time under the circumstances, not to exceed four years. During the period of time that the operation is being terminated, the permit holder may harvest salmon under the terms of the permit but may not release additional fish. (§ 2 ch 111 SLA 1974; am § 4 ch 154 SLA 1977)

Sec. 16.10.440. REGULATION. (a) Fish released into the natural waters of the state by a hatchery operated under AS 16.10.400—16.10.470 are available to the people for common use and are subject to regulation under applicable

ALASKA STATUTES

TITLE 16. FISH AND GAME

Chapter 43. Regulation of Entry into Alaska Commercial Fisheries

Article 3. Initial Issuance of Entry Permits

Section

250. Standards for initial issue of entry permits.

Editor's Notes. The following statutes were selected because of their direct effect upon special harvest areas set up by the Board of Fisheries for private non-profit hatchery operations.

Sec. 16.43.250. STANDARDS FOR INITIAL ISSUE OF ENTRY PERMITS.

(d) If an individual has applied for two or more entry permits under AS 16.43.260(d) for the same specific fishery resource and the same specific type of gear, but has failed to qualify for an entry permit for that type of fishery resource and gear, the individual may credit his cumulative qualifications to the fishery for which he is most qualified. The commission shall issue an entry permit to the individual for the fishery if the individual's cumulative qualifications result in placing the individual in a category designated in (b) of this section. The qualifications credited to a fishery under this subsection may not be considered for the purpose of ranking the applicant under (a)-(c) of this section for any other fishery. The commissioner may not revoke any permit previously issued notwithstanding the issuance of permits in excess of the maximum number established under AS 16.43.230—16.43.240 as a result of this subsection.

Article 6. Special Harvest Area Entry Permits

Section

400. Special harvest area entry permits

410. Terms and conditions of special harvest area entry permits

420. Disposition of fish

430. Authorized gear

440. Adoption of regulations

Sec. 16.43.400. SPECIAL HARVEST AREA ENTRY PERMITS. (a) In addition to entry permits, interim-use permits, and educational permits, the commission may issue special harvest area entry permits to holders of private non-

(3) insurance matters, including title insurance policies and correspondence with insurance companies or borrowers regarding losses, accident reports, and nonpayment of premiums; and

(4) foreclosure and default proceedings.

(b) The following information is confidential and is not subject to public disclosure:

(1) personal and financial information, including income tax returns, financial statements, business income statements, pro forma profit and loss statements, credit information obtained directly from banks and other creditors, and reports obtained from consumer reporting agencies;

(2) loan committee memoranda and minutes containing information relating to credit-worthiness of the applicant; and

(3) the payment history on a loan unless the loan is in default.

(c) Information not described in (a) or (b) of this section may be subject to public disclosure. Requests for disclosure must be made, and will be determined, in accordance with 6 AAC 95. Upon receipt of a request for disclosure, the department will notify the loan applicant and other persons with a privacy interest in the request, to permit them to present reasons why the requested information should not be disclosed. (Eff. 9/11/85, Reg. 95)

Authority: AS 09.25.110

AS 09.25.120

AS 16.10.510

Art. 1, Sec. 22 Alaska Const.

3 AAC 81.900. DEFINITIONS. Unless the context requires otherwise, in this chapter

(1) "commissioner" means the commissioner of the Department of Commerce and Economic Development;

(2) "default" includes a violation of any provision of AS 16.10.500—16.10.620 and this chapter, or the loan documents, failure to make the necessary payment within 15 days after it is due, or failure to maintain the insurance required by the department;

(3) "department" means the Department of Commerce and Economic Development; and

(4) "wraparound financing" means a contract that includes the balance due on an existing debt and an additional amount to cover the difference between the selling price and the existing debt. (Eff. 9/11/85, Reg. 95)

Authority: AS 16.10.510

law in the same way as fish occurring in their natural state until they return to the specific location designated by the department for harvest by the hatchery operator.

(b) The Board of Fisheries may, after the issuance of a permit by the commissioner, amend by regulation adopted in accordance with the Administrative Procedure Act (AS 44.62), the terms of the permit relating to the source and number of salmon eggs, the harvest of fish by hatchery operators, and the specific locations designated by the department for harvest. The Board of Fisheries may not adopt any regulations or take any action regarding the issuance or denial of any permits required in AS 16.10.400—16.10.470. (§ 2 ch 111 SLA 1974; am § 24 ch 206 SLA 1975 am; § 3 ch 59 SLA 1979)

Sec. 16.10.443. DEPARTMENT ASSISTANCE IN COOPERATION. (a) Before and after permit issuance under AS 16.10.400—16.10.470, the department shall make every effort, within the limits of time and resources, to advise and assist applicants or permit holders, as appropriate, in the planning, construction, or operation of salmon hatcheries.

(b) Nothing in this section exempts an applicant or permit holder from compliance with AS 16.10.400—16.10.470 or from compliance with the regulations or restrictions adopted under AS 16.10.400—16.10.470. (§ 1 ch 97 SLA 1975)

Sec. 16.10.445. EGG SOURCES. (a) The department shall approve the source and number of salmon eggs taken under AS 16.10.400—16.10.470.

(b) Where feasible, salmon eggs utilized by a hatchery operator shall first be taken from stocks native to the area in which the hatchery is located, and then, upon department approval, from other areas, as necessary. (§ 2 ch 111 SLA 1974)

Sec. 16.10.450. SALE OF SALMON AND SALMON EGGS BY HATCHERY. A hatchery operator who sells salmon returning from the natural waters of the state, or sells salmon eggs to another hatchery operating under AS 16.10.400—16.10.470, after utilizing the funds for reasonable operating costs, including debt retirement, expanding its facilities, salmon rehabilitation projects, fisheries research, or for costs of operating the qualified regional association for the area in which the hatchery is located, shall expend the remaining funds on other fisheries activities of the qualified regional association. Fish returning to hatcheries and sold for human consumption shall be of a comparable quality to fish harvested by commercial fisheries in the area, and shall be sold at prices commensurate with the current market. (§ 2 ch 111 SLA 1974; am § 5 ch 154 SLA 1977)

Sec. 16.10.460. INSPECTION OF HATCHERY. (a) As a condition of and in consideration for a permit to operate a hatchery under AS 16.10.400—

16.10.470. Inspection of the hatchery facility by department inspectors shall be permitted at any time the hatchery is operating. The inspection shall be conducted in a reasonable manner.

(b) The cost of an inspection performed by the department under AS 16.10.400—16.10.470 shall be borne by the department. (§ 2 ch 111 SLA 1974; am § 4 ch 110 SLA 1980)

Sec. 16.10.470. ANNUAL REPORT. (a) A person who holds a permit for the operation of a salmon hatchery under AS 16.10.400—16.10.470 shall submit an annual report no later than December 15 to the department and to the qualified regional association for the area in which the hatchery is located, to include but not to be limited to information pertaining to species; brood stock source; number, age, weight, and length of spawners; number of eggs taken and fry or fingerlings produced; and the number, age, weight, and length of adult returns attributable to hatchery releases, on a form to be provided by the Department of Fish and Game.

(b) A person who holds a permit for the operation of a salmon hatchery under AS 16.10.400—16.10.470 and each regional association levying a royalty assessment under AS 43.70.010 or AS 43.70.011 shall submit an annual financial report to the Department of Commerce and Economic Development on a form to be provided by the Department of Commerce and Economic Development. (§ 2 ch 111 SLA 1974; am § 6 ch 154 SLA 1977; am § 4 ch 49 SLA 1979)

Sec. 16.10.475. DEFINITIONS. In AS 16.10.375—16.10.470

(1) "commissioner" means the commissioner of fish and game;

(2) "department" means the Department of Fish and Game. (§ 2 ch 161 SLA 1976)

(b) The department will, in its discretion, exchange information with the Department of Fish and Game, including copies of reports filed under AS 16.10.470, to assure compliance with loan terms. (Eff. 9/11/85, Reg. 95)

Authority: AS 16.10.510

3 AAC 81.075. COSTS. (a) All expenses incurred by the department in closing a loan, including processing the application, must be paid by the applicant. These expenses include the cost of credit reports, title reports and insurance, recording fees, appraisals, surveys, travel, and other direct costs.

(b) An origination fee of one-half percent of the total loan amount is due from the borrower when all provisions of 3 AAC 81.065 have been met. (Eff. 9/11/85, Reg. 95)

Authority: AS 16.10.510

3 AAC 81.080. ASSUMPTIONS. (a) Assumption of a loan made under AS 16.10.500—16.10.620 and this chapter is not permitted.

(b) Wraparound financing that includes a loan made under AS 16.10.500—16.10.620 and this chapter is prohibited, and constitutes a default on the loan. (Eff. 9/11/85, Reg. 95)

Authority: AS 16.10.510

3 AAC 78.085. RECONSIDERATION OF LOAN OR GRANT REQUEST.

(a) If a loan or grant request is denied, inactivated, or significantly modified by the department, an applicant may file a written request for reconsideration within 30 days after receipt of notice of the department's decision.

(b) The department will, in its discretion, reconsider a request upon a showing by the applicant that

(1) there has been a substantial change in the circumstances leading to the department's decision;

(2) additional relevant information can be provided to the department that was not initially available; or

(3) administrative errors were made by the department. (Eff. 9/11/85, Reg. 95)

Authority: AS 16.10.510

3 AAC 81.090. CONFIDENTIALITY OF LOAN INFORMATION. (a) The following information is not confidential and is available for public inspection upon request:

(1) a document that is already a public record, including deeds of trust, financing statements, warranty deeds, bills of sale, mortgages, liens, and vehicle titles;

(2) general information regarding loans, including the original loan amount, loan terms, personal guarantees, and disbursement and repayment schedules;

3 AAC 81.050. COLLATERAL. (a) A loan must be secured by collateral acceptable to the department, such as an assignment of future revenue and the proceeds of sale of surplus fish and eggs, and may include a mortgage or other security instrument in real property, buildings, machinery and equipment, and fixtures. (Eff. 9/11/85, Reg. 95)

Authority: AS 16.10.510
AS 16.10.520

3 AAC 81.055. LENDING PRACTICES. (a) Loans may be made for planning and construction of fish hatchery facilities, including preconstruction activities necessary to obtain a permit.

(b) The costs to operate a facility may be loaned annually for not more than the first ten years.

(c) Loan money may not be used to reimburse an applicant for expenses paid more than six months before receipt of the application by the department.

(d) A loan will not be approved for refinancing long-term debt. Interim or construction financing is not considered long-term debt if the term is 12 months or less and the promissory note or the original agreement was executed less than six months before receipt of the application by the department. (Eff. 9/11/85, Reg. 95)

Authority: AS 16.10.510

3 AAC 81.065. DISBURSEMENT OF LOAN MONEY. Loan money will be disbursed when

(1) a security interest in the collateral on behalf of the state has been perfected;

(2) the borrower has complied with the insurance requirements contained in an instrument signed by the borrower;

(3) requirements of the loan committee have been met; and

(4) the borrower is in compliance with all other provisions of the loan documents and this chapter. (Eff. 9/11/85, Reg. 95)

Authority: AS 16.10.510
AS 16.10.520

3 AAC 81.070. SUPERVISION OF LOANS AND GRANTS. (a) As a condition of a loan and while there is an outstanding loan balance, or if the loan is in default, the department will, in its discretion, require the borrower to furnish annual financial statements consisting of a balance sheet, profit and loss statement, sources and application of all money received and a schedule of change of owner's equity. The department will, in its discretion, also require an audit or audits to determine whether the borrower has complied with the provisions of the loan, and conduct periodic inspection of collateral securing repayment of the loan.

REGULATIONS OF THE ALASKA BOARD OF FISHERIES

Chapter 24. Prince William Sound Area

Article 3. Salmon Fishery

Section

365. Port San Juan salmon hatchery management plan

5 AAC 24.365. PORT SAN JUAN SALMON HATCHERY MANAGEMENT PLAN. The department, in consultation with the hatchery operator, shall manage the Point Elrington and Port San Juan Subdistricts to achieve the corporation escapement goal for the Port San Juan salmon hatchery. (Eff. 5/31/85, Reg. 94)

Authority: AS 16.05.060
AS 16.05.251

Chapter 33. Southeast Alaska Area

Article 3. Salmon Fishery

Section

370. Neets Bay fall chum and coho salmon management plan

375. Silver Bay salmon management plan

5 AAC 33.370. NEETS BAY FALL CHUM AND COHO SALMON MANAGEMENT PLAN. (a) The intent of the Board of Fisheries in adopting this management plan is to distribute the harvest of hatchery-produced fall chum and coho salmon in Neets Bay between the purse seine, troll, and drift gill net fleets. In addition to that goal, the board and public would like to have a fishery in Neets Bay that produces a quality product that will allow the Southern Southeast Regional Aquaculture Association (SSRAA) to meet its corporation escapement goal with the least number of fish and provide the highest possible price to the fishermen.

(b) The department, in consultation with SSRAA, shall manage Neets Bay east of the longitude of the easternmost tip of Bug Island to the closed waters area at the head of the bay to distribute the harvest of Neets Bay hatchery produced salmon between the purse seine, troll, and drift gill net fleets by setting the fishing times for those fleets as

(1) June 1 through June 30, troll gear only;

(2) July 1 through July 31, seine, drift gill net, and troll gear to fish in a ratio of one to two to four, with the drift gill net fleet to fish first, followed by the troll fleet, and then the purse seine fleet;

(3) August 1 through September 20, seine and drift gill net gear only will be allowed with a ratio of one to two with breaks in fishing time to occur between openings to allow for an accumulation of fish to harvest;

(4) September 21 through October 20, all gear types in accordance with (2) of this subsection.

The board realizes that the above allocative fishing pattern may not be achievable because of conflicts with the goals stated in (a) of this section that could be caused by effort levels, and run timing and strength. Therefore, the priority goal is to achieve a quality harvest, followed by the harvest distribution goal.

(c) The department may, by emergency order, allow the use of drift gill nets in the harvest areas and set the fishing periods for that gear consistent with (a) and (b) of this section. Drift gill nets in the area may not exceed 200 fathoms in length.

(d) Personal use and sport fishing will be allowed in the harvest area whenever SSRAA is not harvesting salmon for its corporation escapement goal and so long as the personal use and sport fishery do not jeopardize the attainment of that goal.

(e) Gear for the personal use fishery is drift gill nets with a maximum length of 10 fathoms. The annual bag and possession limit is 25 salmon.

(f) Waters of Neets Bay east of a line between ADF&G regulatory markers located approximately one mile from the head of the bay are closed to commercial, sport, and personal use salmon fishing from June 15 through November 15.

Authority: AS 16.05.060
AS 16.05.251

5 AAC 33.375. SILVER BAY SALMON MANAGEMENT PLAN. The department shall manage all waters of Silver Bay between 57° and 57°01'20" N. lat. to ensure chum salmon broodstock escapement to the Medvejie salmon hatchery. The department may not close the troll fishery in this location for protection of hatchery chum salmon stocks.

Authority: AS 16.05.060
AS 16.05.251

3 AAC 81.040. FINANCIAL AND CREDIT RECORD. (a) The department will, in its discretion, consider the following factors in evaluating an applicant's financial and credit record:

(1) existing and prior debts;

(2) credit reports obtained from creditors and private credit reporting services;

(3) prior loan history with the department;

(4) timeliness in making payments on loans and other debts;

(5) prior bankruptcies;

(6) existence of tax liens;

(7) unpaid judgments and prior foreclosures; and

(8) financial and credit reputation.

(b) Information establishing unacceptable credit will be more heavily weighed by the department if it has occurred in recent years. (Eff. 9/11/85, Reg. 95)

Authority: AS 16.10.510
AS 16.10.520

3 AAC 81.045. ABILITY TO REPAY. (a) The department will, in its discretion, consider the following factors in evaluating an applicant's ability to repay a proposed loan

(1) income history, including present income;

(2) prospects for future income;

(3) assets and their liquidity;

(4) liabilities;

(5) reasonableness of projected profit and loss statement; and

(6) other relevant experience.

(b) The department will, in its discretion, compare revenue projections contained in an applicant's profit and loss statement with information it acquires through its own efforts or from the Department of Fish and Game. (Eff. 9/11/85, Reg. 95)

Authority: AS 16.10.510

(1) additional collateral to secure the loan;

(2) additional guarantors; and

(3) subordination of prior lienholders' rights to the interests of the state.

(d) A loan committee shall consider an applicant's eligibility for a loan, corporate management, financial and credit record, ability to repay, operating plan, and the adequacy of collateral offered to secure the loan. A loan committee may also consider the recommendations of the loan examiner assigned to process the loan application and any other relevant information.

(e) A loan committee may fix, within the requirements set by AS 16.10.510 and AS 16.10.520, the term of a loan and repayment schedule.

(f) If a loan or grant request is denied or significantly modified by a loan committee, the loan committee will provide the applicant with a statement of the reasons for the action and the information relied on.

(g) A material misstatement or omission of fact made by an applicant constitutes grounds for denial of a loan or grant request. (Eff. 9/11/85, Reg. 95)

Authority: AS 16.10.510

3 AAC 81.025. CORPORATE MANAGEMENT. The department will, in its discretion, consider the previous fisheries and nonfisheries business experience of the corporate officers and principal employees in evaluating and assessing an applicant's corporate management. (Eff. 9/11/85, Reg. 95)

Authority: AS 16.10.510

AS 16.10.520(d)

3 AAC 81.035. ELIGIBILITY. To be eligible for a loan or grant under AS 16.10.510, an applicant shall provide proof of

(1) issuance of a Department of Fish and Game permit under AS 16.10.400 if applying for a loan for the planning, construction, and operation of hatchery facilities;

(2) certification of the applicant as a regional association under AS 16.10.380 or approval by the qualified regional association, if applying for a loan for fisheries enhancement and rehabilitation activities or preconstruction activities necessary to obtain a hatchery permit from the Department of Fish and Game; or

(3) certification of the applicant as a regional association under AS 16.10.380 if applying for a grant for organizational and planning purposes. (Eff. 9/11/85, Reg. 95).

Authority: AS 16.10.510

Chapter 40. Private Nonprofit Salmon Hatcheries

Article

1. General (5 AAC 40.005—5 AAC 40.015)

2. Special Harvest Areas (5 AAC 40.030—5 AAC 40.045)

Article 1. General

Section

5. General

7. Gear and fishing periods

10. Modifications of applicable regulations

15. Prohibitions

5 AAC 40.005. GENERAL. (a) The harvest of salmon inhabiting the water of the state, regardless of whether the salmon are naturally or artificially propagated, may be conducted only pursuant to regulations adopted by the Board of Fisheries.

(b) The harvest of salmon returning to a private nonprofit salmon hatchery will be governed by regulations adopted by the Board of Fisheries. The board will, in its discretion, develop harvesting regulations after review of the harvest plans or other materials, information, and testimony, if any, presented by the regional associations, hatchery operators, the Department of Commerce and Economic Development, the Department of Fish and Game, fishermen, and other interested parties.

(c) Where hatchery returns enter a segregated location near the release site and can be harvested without significantly affecting wild stocks, a special harvest area may be designated by regulation adopted by the board, within the hatchery permit, or by emergency orders issued by the commissioner.

(d) A private nonprofit hatchery permit holder and his agents, contractees, and employees may harvest salmon for the hatchery only in the applicable special harvest area. This does not prevent a special harvest area from being open to commercial, sport, or subsistence fishing or any combination thereof to the extent provided in regulations adopted and orders issued under this chapter. Harvesting of salmon within the special harvest area, whether by the hatchery operator or the common property fisheries, will be opened and closed by regulation or emergency order.

(e) Special harvest area boundaries set out in 5 AAC 40, or in a private nonprofit hatchery permit issued by the commissioner, may be altered by emergency order if necessary for proper management of natural or hatchery stocks.

(f) Hatchery permit holders, their agents, contractees, and employees shall com-

ply with all terms and conditions of the hatchery permit, applicable regulations and orders, and any additional requirements imposed by the commissioner to implement this chapter.

(g) Agents, contractees, and employees of a hatchery permit holder may harvest salmon for the hatchery in the special harvest area only if they have in their possession a written authorization from the hatchery permit holder and only in accordance with its terms. The activities in the special harvest area of a person who is not a hatchery permit holder or an agent, contractee, or employee of the permit holder acting under the terms of a written authorization, are governed by regulations applicable to commercial, sport, personal use, and subsistence fishing.

(h) Private nonprofit salmon hatchery operators shall take all reasonable steps necessary to ensure that hatchery produced salmon harvested in their designated special harvest area are surplus fish produced at that facility. (In effect before 1983; am 4/16/83, Reg. 86; am 5/31/85, Reg. 94)

Authority: AS 16.05.060
AS 16.05.251
AS 16.10.440

5 AAC 40.007. GEAR AND FISHING PERIODS. (a) The commissioner may authorize legal gear for cost recovery either through the hatchery permit or by regulation.

(b) Fishing periods for each gear type may be modified by emergency order as needed to protect the public interest or wild stocks.

(c) The hatchery operator shall obtain the appropriate special harvest area entry permits from the Commercial Fisheries Entry Commission. The hatchery operator may also contract with licensed commercial fishermen to conduct the harvest.

(d) The commissioner may define a unit of gear to be used and under a special harvest area entry permit for that gear type. (In effect before 1985; am 5/31/85, Reg. 94)

Authority: AS 16.05.060
AS 16.05.251
AS 16.05.270

5 AAC 40.010. MODIFICATIONS OF APPLICABLE REGULATIONS. (a) Hatchery permit holders shall, with respect to salmon harvested by them (or their agents, contractees, or employees), comply with applicable provisions of 5 AAC 39.130(a) and (b) as though they were a purchaser of fish.

3 AAC 81.012. GRANT APPLICATION PROCESS. (a) To apply for a grant under AS 16.10.510(9) an applicant shall file with the department

(1) a letter stating the proposed use of the grant, including a list of goals and objectives to be accomplished through the use of the grant;

(2) a proposed budget;

(3) a copy of a letter from the Department of Fish and Game certifying the applicant as a regional association under AS 16.10.380;

(4) the names of officers and principal employees of the association and a brief resume of their professional background and experience;

(5) a proposed disbursement schedule for the grant; and

(6) other information that may be relevant to the grant application.

(b) A grant application may be approved by a loan committee if the loan committee determines that the grant would contribute to the future development of the state's fisheries.

(c) A loan committee may rely on technical assistance provided by the Department of Fish and Game in acting on a grant application. (Eff. 9/11/85, Reg. 95).

Authority: AS 16.10.510

3 AAC 81.015. EXAMINATION. (a) The materials described in 3 AAC 81.010 will be processed and evaluated by a loan examiner. The loan examiner will evaluate the applicant's eligibility, financial and credit history, operating plan, ability to repay, and proposed collateral.

(b) On the basis of the evaluation, the loan examiner will either inactivate the application, due to lack of information required under 3 AAC 81.010 or ineligibility of the applicant, or recommend proposed action on the loan request to the appropriate loan committee; however, the recommendations of a loan examiner is not binding on a loan committee. (Eff. 9/11/85, Reg. 95)

Authority: AS 16.10.510

3 AAC 81.020. LOAN COMMITTEE. (a) A loan committee consists of one or more persons appointed by the commissioner to act on loan and grant requests.

(b) A loan committee may approve, deny, or modify and approve a loan or grant request, or may table a loan or grant request subject to obtaining additional information.

(c) A loan committee may impose reasonable conditions on the approval of a loan or grant request, including

(6) a letter from the qualified regional association in that area approving the local nonprofit association, if the loan request is from a local nonprofit corporation and is for preconstruction activities or exceeds \$1,000,000;

(7) a financial statement including the most recent annual statement, the current month end statement, and the terms of all outstanding state loans, on a form provided by the department;

(8) a projected statement of profit and loss, including actual figures currently available, and forecasted future state loan requirements, using the sample format provided by the department or a similar format acceptable to the department;

(9) the names of officers and principal employees of the corporation, and a brief resume of their professional background and experience, on a form provided by the department;

(10) a corporate resume, on a form provided by the department or other form acceptable to the department;

(11) credit authorizations for at least three of the applicant's creditors, on forms provided by the department;

(12) a corporate resolution signed by the corporate president and secretary, authorizing the corporation to apply for a loan and authorizing an officer or agent to provide information and documentation necessary for loan approval, on a form provided by the department;

(13) a consent to release information, on a form provided by the department;

(14) a \$10 nonrefundable application fee; and

(15) any other information that may be helpful to an applicant in demonstrating eligibility for a loan as requested by the department.

(b) A loan for preconstruction activities may be initiated by filing the materials listed in (a) of this section, except for the materials listed in paragraphs (a)(3), (4) and (8) of this section.

(c) A loan for planning and implementation of nonhatchery fisheries enhancement and rehabilitation activities may be initiated by filing the materials listed in (a) of this section, except for the material listed in (a)(4) of this section. An applicant for a loan under this subsection shall also submit a statement, as detailed as possible, indicating the benefits to the fisheries of the area likely to result from the enhancement and rehabilitation activities. (Eff. 9/11/85. Reg. 95)

Authority: AS 16.10.510

(b) Hatchery permit holders harvesting salmon within a special harvest area, to the extent those salmon are used as egg sources for brood stock, will be exempted by the commissioner from the provisions of AS 16.05.831 if the permit holder so requests. The commissioner may condition the exemption on terms he considers necessary to carry out the intent of AS 16.05.831.

(c) Hatchery permit holders conducting a hatchery harvest of salmon within a special harvest area are exempt from the provisions of 5 AAC 39.290.

(d) Fishermen taking salmon in a special harvest area under authorization from the hatchery permit holder and operating under a special harvest area entry permit are exempt from the provisions of 5 AAC 39.120.

Authority: AS 16.05.050
AS 16.05.060
AS 16.05.251(a)(2)-(7) and (12)
AS 16.05.831
AS 16.05.920
AS 16.20.420-440

5 AAC 40.015. PROHIBITIONS. It is unlawful for any person to violate the provisions of this chapter.

Authority: AS 16.05.050
AS 16.05.060
AS 16.05.251(2)-(7) and (12)
AS 16.05.831
AS 16.05.920
AS 16.10.420-440

Article 2. Special Harvest Areas

Section

- 30. Sheldon Jackson Special Harvest Area
- 32. Douglas Island Pink and Chum Special Harvest Area—Kowee Creek
- 33. Douglas Island Pink and Chum Special Harvest Area—Sheep Creek
- 35. Prince William Sound Aquaculture Corporation Special Harvest Area—San Juan
- 37. Nerka Corporation Special Harvest Area—Perry Island
- 38. Solomon Gulch Special Harvest Area—Valdez
- 39. Alaska Aquaculture Corporation Special Harvest Area—Burnett Inlet
- 41. Herring Bay Special Harvest Area—Ketchikan
- 42. Northern Southeast Regional Aquaculture Association Special Harvest Areas
- 43. Neets Bay Special Harvest Area—Behm Canal
- 44. Burro Creek Farms Special Harvest Area—Taiya Inlet
- 45. Nakat Inlet Special Harvest Area

5 AAC 40.01. SHELDON JACKSON COLLEGE SPECIAL HARVEST AREAS. (a) There are established under the provisions of 5 AAC 40.005 the following Sheldon Jackson College Special Harvest Areas:

(1) all waters of Crescent Bay and Eastern Anchorage enclosed by a line from the northernmost end of the John O'Connell Bridge to the southernmost end of the bridge to the northeasternmost tips of Aleutski Island, Turning Island, Kutkan Island, Morne Island, and Twin Islands to the westernmost tips of Ring and Dove Islands then west to the southeasternmost tip of Cannon Island; pink and chum salmon only may be harvested in this area;

(2) all waters enclosed by a line from the southeast corner of the Crescent Harbor breakwater (57° 02' 58" N. lat., 135° 19' 16" W. long.) to a point on the beach approximately 150 yards southeast of the hatchery stream outlet (57° 02' 58" N. lat., 135° 19' 16" W. long.); coho salmon only may be harvested in this area.

(b) A hatchery permit holder harvesting salmon within the special harvest area is exempt from the provisions of 5 AAC 33.310. Fishing periods for the hatchery permit holder will be opened and closed by emergency order by gear type.

(c) Notwithstanding 5 AAC 33.330, legal gear for hatchery permit holders in the special harvest area are purse seine, beach seine, and hand purse seine. (In effect before 1981; am 6/28/81, Reg. 78)

Authority: AS 16.05.050
AS 16.05.060
AS 16.05.251(a)(2)-(7) and (12)
AS 16.05.920
AS 16.10.420-440

5 AAC 40.032. DOUGLAS ISLAND PINK AND CHUM SPECIAL HARVEST AREA—KOWEE CREEK. (a) There is established a Kowee Creek Special Harvest Area, consisting of all waters within a 500-yard radius, at low tide, from the mouth of Kowee Creek on Douglas Island.

(b) A hatchery permit holder harvesting salmon within the special harvest area is exempt from the provisions of 5 AAC 33.310, except as may be specifically provided by emergency order. The hatchery permit holder may harvest salmon within the special harvest area by purse seine seven days per week during the period 6:00 a.m. July 15 through 6:00 p.m. October 25 unless closed or modified by emergency order.

(c) Notwithstanding 5 AAC 33.330, legal gear for that hatchery permit holder

REGULATIONS OF THE ALASKA DEPARTMENT OF COMMERCE AND ECONOMIC DEVELOPMENT

Chapter 81. Fisheries Enhancement Loans and Grants

Section

- 10. Loan application process
- 12. Grant application process
- 15. Examination
- 20. Loan committee
- 25. Corporate management:
- 35. Eligibility
- 40. Financial and credit record
- 45. Ability to repay
- 50. Collateral
- 55. Lending practices
- 65. Disbursement of loan money
- 70. Supervision of loans and grants
- 75. Costs
- 80. Assumptions
- 85. Reconsideration of loan or grant request
- 90. Confidentiality of loan information
- 900. Definitions

3 AAC 81.010. LOAN APPLICATION PROCESS. (a) To apply for a loan for planning, construction, or operation of a hatchery, preconstruction activities necessary to obtain a permit, or for planning and implementation of nonhatchery fisheries enhancement activities and rehabilitation, including lake fertilization and habitat improvement, an applicant shall file with the department

(1) a completed application for a fisheries enhancement loan, on a form provided by the department;

(2) a letter of intent stating the amount requested, a schedule of acceptable collateral and the intended use of the proposed loan money, on a form provided by the department;

(3) copies of all permits, including copies of permits necessary to construct the hatchery facility;

(4) a copy of the general contractor's bid or an estimate of construction costs for the hatchery and an estimate of operating costs; costs in excess of \$100,000 may be required to be supported by a minimum of two competitive bids;

(5) a copy of the statement of nonprofit status issued by the U.S. Internal Revenue Service or the Alaska Department of Revenue;

(b) All obligations or liabilities of a regional salmon enhancement authority remain its own and are not obligations or liabilities of the state. (§ 17 ch 154 SLA 1977)

Sec. 16.10.620. POWERS OF THE AUTHORITY. A salmon enhancement authority has the general power to

(1) adopt, alter and use a corporate seal;

(2) prescribe, adopt, amend, and repeal bylaws;

(3) sue and be sued in its own name;

(4) appoint officers, agents and employees and vest them with the powers and duties and to fix, change and pay compensation for their services as the authority may determine;

(5) borrow money, make and issue notes and other evidences of indebtedness of the authority for any of its corporate purposes and to secure payment of its obligations by pledge of or lien on all or any of its assets, contracts, revenue and income;

(6) make and execute agreements, contracts and other instruments necessary or convenient in the exercise of its powers and functions, including contracts with any person, firm, corporation, government agency or other entity;

(7) receive, administer and comply with the conditions and requirements of an appropriation, gift, grant or donation of property or money;

(8) invest or reinvest money or funds held by the authority in obligations or other securities or investments in which banks or trust companies in the state may legally invest funds held in reserves or sinking funds or funds not required for immediate disbursement, and in certificates of deposit or time deposits;

(9) acquire, hold, use, lease, sell or otherwise dispose of property of any kind, real, personal or mixed or any interest in it;

(10) do all acts and things necessary, convenient or desirable to carry out the powers granted or implied in AS 16.10.600—16.10.620;

(11) adopt, amend and repeal rules and regulations necessary. (§ 17 ch 154 SLA 1977)

in the special harvest area are purse seine, hand purse seine, beach seine, fyke net, drift gill net, set gill net, and dip net. (In effect 1984; am 9/22/84, Reg. 91)

Authority: AS 16.05.060

AS 16.05.251

AS 16.10.440

5 AAC 40.033. DOUGLAS ISLAND PINK AND CHUM SPECIAL HARVEST AREA—SHEEP CREEK. (a) There is established the Sheep Creek Hatchery Special Harvest Area consisting of all waters of Gastineau Channel within one and one-half miles south of and one-half mile north of the terminus of Sheep Creek that extend seaward 300 yards from mean low tide.

(b) A hatchery permit holder harvesting salmon within the special harvest area is exempt from the provisions of 5 AAC 33.310 except as may be specifically provided by emergency order. The hatchery permit holder may take salmon within the special harvest area only during periods established by emergency order by gear type.

(c) Notwithstanding 5 AAC 33.330, legal gear for the hatchery permit holder in the special harvest area are purse seine, hand purse seine, beach seine, drift gill net, set gill net, fyke net, and dip net. (Eff. 4/14/82, Reg. 82; am 9/22/84, Reg. 91)

Authority: AS 16.05.060

AS 16.05.251

AS 16.10.440

5 AAC 40.035. PRINCE WILLIAM SOUND AQUACULTURE CORPORATION SPECIAL HARVEST AREA—SAN JUAN. (a) There is established the Prince William Sound Aquaculture Corporation Special Harvest Area—San Juan, consisting of all waters of Sawmill Bay, Evans Island, west of 148° 01' 50" W. longitude.

(b) The hatchery permit holder harvesting salmon within the special harvest area is exempt from the provisions of 5 AAC 24.310—5 AAC 24.320 and that portion of 5 AAC 24.350(41) west of 148° 01' 50" W. long. in Sawmill Bay except as may be specifically provided by emergency order. The hatchery permit holder may harvest salmon within the special harvest area by gear types specified in 5 AAC 40.035(c) seven days per week from 6:00 a.m. July 7 through 6:00 p.m. September 15 unless closed or modified by emergency order.

(c) Notwithstanding 5 AAC 34.330, legal gear for the hatchery permit holder in the special harvest area are purse seine, hand purse seine, and beach seine.

Authority: AS 16.05.050
AS 16.05.060
AS 16.05.251(a)(2) (7) and (12)
AS 16.05.920
AS 16.10.420-440

5 AAC 40.037. NERKA CORPORATION SPECIAL HARVEST AREA — PERRY ISLAND. (a) There is established the Nerka Corporation Special Harvest Area, consisting of all waters of South Bay, Perry Island, enclosed by a line from Meares Point light on the west side of the bay easterly two nautical miles to an exposed reef and the north one-half mile to the east side of the bay.

(b) A hatchery permit holder harvesting salmon within the special harvest area is exempt from the provisions of 5 AAC 24.310—5 AAC 24.320 except as may be specifically provided by emergency order. The hatchery permit holder may harvest salmon within the special harvest area during periods opened and closed by emergency order.

(c) Notwithstanding 5 AAC 24.330, legal gear for the hatchery permit holder in the special harvest area is a set gill net. However, if the commissioner and the permit holder determine that set gill net gear is unsatisfactory, the commissioner may open the special harvest area for hatchery harvest with beach seine or purse seine.

Authority: AS 16.05.050
AS 16.05.060
AS 16.05.251(a)(2)-(7) and (12)
AS 16.05.920
AS 16.10.420-440

5 AAC 40.038. SOLOMON GULCH SPECIAL HARVEST AREA — VALDEZ. (a) There is established the Solomon Gulch Special Harvest Area, consisting of all waters within a 500-yard radius of the terminus of Solomon Gulch Creek.

(b) The hatchery permit holder harvesting salmon within the special harvest area is exempt from the provisions of 5 AAC 24.310 and 5 AAC 24.320, except as may be specifically provided by emergency order. The hatchery permit holder may harvest salmon in the special harvest area during periods established by emergency order.

(c) Notwithstanding 5 AAC 24.330, legal gear for the hatchery permit holder in the special harvest area is any gear listed in 5 AAC 39.105(d) except gill nets. (Eff. 4/16/83, Reg. 86)

Sec. 16.10.550. SALE OR TRANSFER OF MORTGAGES AND NOTES. [Repealed by § 14 ch 122 SLA 1980.]

Sec. 16.10.555. DISPOSAL OF PROPERTY ACQUIRED BY DEFAULT OR FORECLOSURE. The Department of Commerce and Economic Development shall dispose of property acquired through default or foreclosure of a loan made under AS 16.10.500—16.10.620. Disposal shall be made in a manner that serves the best interests of the state, and may include the amortization of payments over a period of years.

Effect of Amendment. The 1985 amendment added this section effective July 1, 1985.

Sec. 16.10.560. DEFINITIONS. In AS 16.10.500—16.10.550

(1) "commissioner" means the commissioner of commerce and economic development;

(2) "hatchery" means a facility for the artificial incubation of salmon eggs which may include means for the rearing of juvenile salmon. (§ 1 ch 190 SLA 1976)

Sec. 16.10.600. CREATION OF AUTHORITIES. (a) An association qualified under AS 16.10.380 as a regional association is given the authority to form a regional salmon enhancement authority. There is created with respect to each of the associations qualified under AS 16.10.380 a public body corporate and politic as a political subdivision of the state to function in the operating areas of the individual associations. Each authority may exercise all powers conferred by AS 16.10.600—16.10.620.

(b) A regional salmon enhancement authority may not transact business or exercise powers granted to it until the governing body of the association has, by resolution, declared there is a need for the authority to function, given the authority to function and appointed persons to serve as the board of commissioners of the authority. The number of members of the board of commissioners, their terms of office and the filling of vacancies in office shall be determined by resolution of the governing body of the association.

(c) The regional salmon enhancement authority has jurisdiction to operate in all or part of the operating area of the individual association as determined by resolution of the governing body of the association. (§ 17 ch 154 SLA 1977)

Sec. 16.10.610. TAX EXEMPTION. (a) A salmon enhancement authority is exempt from payment of taxes or assessments for a period of 20 years from June 24, 1977 on property owned by the authority which is used for salmon enhancement purposes.

ty assessment, the commissioner shall notify the qualified regional association for the area of his determination. The qualified regional association shall, within two months after receiving notice of the commissioner's determination, hold public meetings and mail ballots in accordance with (c) of this section. The ballots shall ask the question whether the royalty assessment for the area shall be continued. Only a person who is qualified to vote in accordance with (c) of this section may receive and cast a ballot under this subsection. (§ 1 ch 190 SLA 1976; am §§ 14-16, 19 ch 154 SLA 1977; am § 8 ch 59 SLA 1979)

Editor's Notes. For termination of royalty assessments upon the levy of a salmon enhancement tax (AS 43.76.010-43.76.030), see § 4 ch 154 SLA 1980 in the 1980 Temporary and Special Acts and Resolves.

Notes to Decisions. This section impermissibly delegates taxing power to regional associations, violating § 2 art. x of the state constitution. *State, N.S.E. Regional Aquaculture Assn'n v. Alex, Sup. Ct. Op. No. 2438 (File Nos. 5065, 5086, 5142), 646 P.2d 203 (1982).*

Assessments are "proceeds of a state tax or license." Since the constitution prohibits the dedication of any source of revenue, including both "taxes" and "special assessments," the assessments authorized by the section are "proceeds of a state tax or license," within the meaning of § 7 art. IX of the state constitution, whether or not the salmon assessments fit the definition of "special assessments." *State, N.S.E. Regional Aquaculture Assn'n v. Alex, Sup. Ct. Op. No. 2438 (File Nos. 5065, 5086, 5142), 646 P.2d 203 (1982).*

Sec. 16.10.540. VOLUNTARY ASSESSMENT ON SALE OF SALMON. (a) In place of or in addition to an assessment levied under AS 16.10.530, an association of persons who hold entry permits under AS 16.43.010-16.43.380, which consists of at least 51 percent of the persons holding entry permits and actively participating in a fishery to be benefited by a hatchery program, may levy and collect an assessment from among its members for the purpose of securing and repaying a loan made under AS 16.10.510.

(b) Upon satisfactory demonstration to the commissioner that an assessment levied under this section may reasonably be relied upon to secure and repay a loan to be made under AS 16.10.510, the commissioner may make the loan without requiring an assessment under AS 16.10.530.

(c) If an assessment made under this section fails to satisfy the payments required on the principal and interest due on the loan the commissioner may negotiate with the regional association to levy an assessment under AS 16.10.530. (§ 1 ch 190 SLA 1976; am § 9 ch 59 SLA 1979)

Effect of Amendment. The 1979 amendment, in subsection (a), substituted "who hold entry permits under AS 16.43.010-16.43.380" for "licensed under AS 16.05.540-16.05.600" and "holding entry permits" for "so licensed."

Authority: AS 16.05.050
AS 16.05.060
AS 16.05.251
AS 16.10.420-440

5 AAC 40.039. ALASKA AQUACULTURE CORPORATION SPECIAL HARVEST AREA—BURNETT INLET. (a) There is established the Burnett Inlet Special Harvest Area, consisting of all waters of Burnett Inlet, Etolin Island, north of 56° 06' N. lat. and south of 56° 10' 50" N. lat.

(b) A hatchery permit holder harvesting salmon within the special harvest area is exempt from the provisions of 5 AAC 33.310. Fishing periods for the hatchery permit holder will be opened and closed by emergency order by gear type.

(c) Notwithstanding 5 AAC 33.330, legal gear for the hatchery permit holder in the special harvest area are beach seine, purse seine, and hand purse seine. (In effect before 1983; am 4/16/83, Reg. 86)

Authority: AS 16.05.050
AS 16.05.060
AS 16.05.251
AS 16.05.920
AS 16.10.420-440

5 AAC 40.041. HERRING BAY SPECIAL HARVEST AREA—KETCHIKAN. (a) There is established a Herring Bay Special Harvest Area for the Southern Southeast Regional Aquaculture Association Whitman Lake Hatchery, consisting of the waters of Herring Creek and Cove bound by the hatchery water outlet and a line from a point of land on George Inlet at the east side of Lot 39, USS 3397, bearing 18° 12' to a point of land on the southern edge of Lot 91, USS 2403.

(b) A hatchery permit holder harvesting salmon within the special harvest area is exempt from the provisions of 5 AAC 33.310. Fishing periods for the hatchery permit holder will be opened and closed by emergency order by gear type.

(c) Notwithstanding 5 AAC 33.330, legal gear for the hatchery permit holder in the special harvest area is beach seine, purse seine, and dip net. Gill nets may be used by the hatchery operator in the special harvest area for taking chinook and coho salmon brood stock.

(d) That portion of the special harvest area between the hatchery outlet and the terminus of Herring Creek may be closed to sport fishing. The remainder of the special harvest area may not be closed to sport fishing unless hatchery brood stock needs are jeopardized. (Eff. 6/28/81, Reg. 78; am 5/31/85, Reg. 94)

Authority: AS 16.05.060
AS 16.05.251

5 AAC 40.042. NORTHERN SOUTHEAST REGIONAL AQUACULTURE ASSOCIATION SPECIAL HARVEST AREAS. (a) The following special harvest areas are established for the Northern Southeast Regional Aquaculture Association:

(1) Salmon Creek, all waters of Gastineau Channel north of a line from Norway Point to Gold Point and south of a line from End Point to Doug Point, including all waters within mean high tide; only species produced at the Salmon Creek Hatchery may be harvested in this area;

(2) Sea Lion Cove, all waters within a 50-yard radius of the terminus of ADF&G stream #113-61-005 at mean low tide;

(3) Patterson Bay, all waters of Patterson Bay north of 56°34' N. Lat.;

(4) Bear Cove, all waters of Bear Cove east of 135°09'42" W. Long.

(b) A hatchery permit holder harvesting salmon within a special harvest area is exempt from the provisions of 5 AAC 33.310. Fishing periods for the hatchery permit holder will be established by emergency order by gear type.

(c) Notwithstanding 5 AAC 33.330, legal gear for the hatchery permit holder in a special harvest area are as follows:

(1) Salmon Creek: purse seine, beach seine, drift gill net, hook and line, and dip net;

(2) Sea Lion Cove: beach seine, and dip net;

(3) Patterson Bay: purse seine, beach seine, drift gill net, set gill net, hook and line, and dip net;

(4) Bear Cove: purse seine, beach seine, and dip net. (Eff. 4/14/82, Reg. 82; am 9/22/84, Reg. 91)

Authority: AS 16.05.060
AS 16.05.251
AS 16.10.440

5 AAC 40.043. NEETS BAY SPECIAL HARVEST AREA—BEHM CANAL.

(a) There is established a Neets Bay Special Harvest Area for the Southern Southeast Regional Aquaculture Association harvest of coho and chum returns to the Neets Bay release site, consisting of all waters of Neets Bay east of the longitude of the easternmost tip of Bug Island.

(b) A hatchery permit holder harvesting salmon within the special harvest area is exempt from the provisions of 5 AAC 33.310. Fishing periods for the hatchery permit holder will be opened and closed by emergency order by gear type.

(d) The assessment shall terminate upon request of the qualified regional corporation when all financial obligations relating to the assessments have been met.

(e) Before an assessment is made under this section, the qualified regional association for the area in which the assessment is to be levied shall hold an initial public meeting to explain and discuss the necessity for the assessment and to explain the registration procedure established under (f) of this section. Reasonable public notice of the meeting shall be sent to all limited entry permit holders actively participating in a fishery in the area, posted in at least three centrally located public places in the area, and published in at least one newspaper of general circulation at least one time a week for three consecutive weeks in the area, if one exists. The notice shall briefly state the amount of the assessment and a short general description of the purposes for which the assessment money will be used. A ballot shall be mailed to all limited entry permit holders actively participating in a fishery in the area at least 30 days before the initial public meeting and contain a copy of the notice and ask the question whether an assessment shall be imposed. At the public meeting the returned ballots shall be counted by a special committee appointed by the regional association for that purpose, and a vote by written ballot shall be taken on the question from among the limited entry permit holders present at the initial public meeting. After the vote is taken at the initial meeting a second public meeting shall be held, upon the limited notice of publication in a newspaper of general circulation, each day for five consecutive days and the mailing of personal notice to all limited entry permit holders who actively participate in a fishery in the area at least 14 days before the second public meeting, to give those who did not vote by written ballot at the initial public meeting an opportunity to vote. These votes shall be counted with the votes counted at the initial meeting. A majority vote for the assessment is required from the combined total of the returned ballots and the votes by ballot cast at both public meetings, before an assessment may be imposed. No person may vote twice.

(f) The qualified regional association shall establish standard registration procedures for voting on assessments under this section.

(g) A limited entry permit holder who would be qualified to vote on a royalty assessment levied by a regional association may request the commissioner to reduce or terminate a royalty assessment in the region. The commissioner may terminate or reduce the royalty assessment if he finds the royalty assessment to be unreasonable or to be no longer needed by the regional association to meet the purposes of AS 16.10.375—16.10.620.

(h) Upon receipt of a petition requesting termination of the royalty assessment and signed by not less than 10 percent of the number of persons qualified to vote under (e) of this section in the election levying the royalty assessment in the area, the commissioner shall determine if there are any outstanding financial obligations relating to the royalty assessment. If the commissioner determines that there are no outstanding financial obligations relating to the royal-

The 1980 amendment substituted "\$6,000,000 for a hatchery or other enhancement or rehabilitation activity conducted" for "\$3,000,000 for a hatchery constructed" near the beginning of subsection (a), substituted "\$1,000,000" for "\$300,000" at the end of subsection (a), and substituted "10" for "six" preceding "years" where it appears near the middle and near the end of subsection (b).

The 1982 amendment substituted "\$10,000,000" for "\$6,000,000" in the first sentence of subsection (a).

Sec. 16.10.525. REPAYMENT OF PRINCIPAL AND INTEREST ON LOANS. The commissioner may not require the repayment of principal on a loan made under AS 16.10.510 for the initial period of the loan. Interest on the principal of a loan made under AS 16.10.510 does not accrue during the initial period of the loan. In this subsection, the "initial period of the loan" means a period of time determined by the commissioner which is not less than six years or more than 10 years from the date the loan is made. (§ 7 ch 106 SLA 1980)

Editor's Notes. Section 79 ch 106 SLA 1980 provides: "Section 7 of this Act is retroactive to June 19, 1976, and applied to loans made under AS 16.10.510 after June 18, 1976."

Sec. 16.10.530. ROYALTY ASSESSMENT ON SALE OF SALMON. (a) The commissioner, on request of the qualified regional association for the area in which the royalty assessment is to be levied, after consultation with the commissioner of fish and game and after reaching any necessary agreements with local governments, shall establish areas in which a royalty assessment shall be levied on the sale of one or more species of salmon caught by persons holding entry permits under AS 16.10.010—16.10.380 in the area in which the royalty assessment is to be levied. A request by the qualified regional association shall include a description of compliance with (e) of this section. The commissioner shall determine whether the procedural requirements under (e) of this section were followed and whether the proposed assessment is reasonable. A royalty assessment levied under this section shall be for the purpose of providing revenue for the qualified regional association for the area in which the royalty assessment is made. The rate and conditions of royalty assessments, including species to be involved, shall be stated by the appropriate regional association in conjunction with the request to the commissioner under this subsection. The royalty assessment may be equal to either two or three percent of the fair market value of the fish but may not exceed three percent of the fair market value of the fish.

(b) [Repealed by § 19 ch 154 SLA 1977.]

(c) The commissioner and the appropriate qualified regional association must agree on a means of collection of the assessment and the commissioner may, by regulation, require its collection by buyers of the salmon upon the sale of which an assessment is levied.

(c) Notwithstanding 5 AAC 33.330, legal gear for the hatchery permit holder in the special harvest area is purse seine, beach seine, gill net, and troll gear. The hatchery permit holder may use floating weirs in waters of the special harvest area east of 131° 33' W. long. (Eff. 6/28/81, Reg. 78; am 5/31/85, Reg. 94)

Authority: AS 16.05.060
AS 16.05.251

5 AAC 40.044. BURRO CREEK FARMS SPECIAL HARVEST AREA—TAIYA INLET. (a) There is established the Burro Creek Farms Special Harvest Area consisting of all waters of Taiya Inlet within a 500-yard radius of the terminus of Burro Creek.

(b) A hatchery permit holder harvesting salmon within the special harvest area is exempt from the provisions of 5 AAC 33.310. Fishing periods for the hatchery permit holder will be established by emergency order by gear type.

(c) Notwithstanding 5 AAC 33.330, legal gear for the hatchery permit holder in the special harvest area is beach seine, purse seine, and gill net. (Eff. 4/14/82, Reg. 82)

Authority: AS 16.05.050
AS 16.05.060
AS 16.05.251(a)(2)-(7) and (12)
AS 16.05.920
AS 16.10.420-440

5 AAC 40.045. NAKAT INLET SPECIAL HARVEST AREA. (a) There is established a Nakat Inlet Special Harvest Area for the Southern Southeast Regional Aquaculture Association harvest of chum returns to the Nakat Inlet release site, consisting of all waters of Nakat Inlet north of 54° 50' N. lat.

(b) The hatchery permit holder harvesting salmon within the special harvest area is exempt from the provisions of 5 AAC 33.310. Fishing periods for the hatchery permit holder will be established by emergency order by gear type.

(c) Notwithstanding 5 AAC 33.330, legal gear for the hatchery permit holder in the special harvest area are purse seine, gill net, troll and beach seine. (Eff. 4/16/83, Reg. 86)

Authority: AS 16.05.050
AS 16.05.060
AS 16.05.251
AS 16.05.920
AS 16.10.420-440

REGULATIONS OF THE ALASKA DEPARTMENT OF FISH AND GAME

Chapter 40. Private Nonprofit Salmon Hatcheries

Article

- 1. Applicability of Regulations
- 4. Permit Application Procedures
- 5. Regional Comprehensive Planning
- 8. General Provisions

Article 3. Applicability of Regulations

Editor's Note. Regulations 5 AAC 40.100—40.990 were adopted by the Alaska Department of Fish and Game through the Administrative Procedures Act.

Section

- 100. Applicability of regulations

5 AAC 40.100. APPLICABILITY OF REGULATIONS. The provisions of 5 AAC 40.110 - 5 AAC 40.990 govern the permit application process for private nonprofit salmon hatcheries, and establish guidelines and procedures regarding the operation of permitted hatcheries. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.375
AS 16.10.470

Article 4. Permit Application Procedures

Section

- 110. Authority.
- 120. Pre-application assistance
- 130. Management feasibility analysis
- 140. Permit application
- 150. Application fee
- 160. Acceptance determination
- 170. Regional planning team review
- 180. Additional information

regional associations for planning and implementation of fisheries enhancement and rehabilitation activities including, but not limited to, lake fertilization and habitat improvement. (§ 1 ch 190 SLA 1976; am §§ 9-11 ch 154 SLA 1977; am § 5 ch 59 SLA 1979; am § 11 ch 72 SLA 1979; am §§ 3, 4, 77 ch 106 SLA 1980)

Effect of Amendments. The first 1979 amendment inserted "royalty" in the first sentence of paragraph (9).

The second 1979 amendment substituted "nine and one-half percent" for "eight percent" in paragraph (6).

The 1980 amendment substituted "30" for "25" preceding "years" near the end of paragraph (5), repealed paragraph (8), and added paragraph (10).

Sec. 16.10.520. LIMITATION ON LOANS. (a) A single fisheries enhancement loan may not exceed \$10,000,000 for a hatchery or other enhancement or rehabilitation activity conducted under a permit granted to a qualified regional association which has formed a nonprofit corporation, or to a local nonprofit corporation approved by a qualified regional association. A loan for any other nonprofit hatchery corporation project may not exceed \$1,000,000.

(b) Loans for the total project costs may be made if the commissioner determines that the applicant has sufficient financial resources to insure the establishment of an equity position in the project equal to 10 percent of the loan within 10 years or less, either through a royalty assessment levied under AS 16.10.530 or AS 16.10.540 or other means approved by the commissioner. For purposes of this subsection, "total project costs" includes planning and construction costs for the facility and the cost of operations for not more than the first 10 years. The costs for operations shall be loaned on an annual basis.

(c) All loans must be secured by collateral satisfactory to the commissioner, including but not limited to a first deed of trust, assignment of lease and leasehold improvements, sale of surplus fish from the hatchery, or royalty assessments from fishermen levied under AS 16.10.530—16.10.540.

(d) The commissioner may require what he considers adequate evidence of performance in utilizing loan funds approved for an initial or preliminary project before approving a subsequent loan application.

(e) The total amount of loans made or purchased in any fiscal year shall not exceed the amount specifically authorized by statute. The amount to be purchased shall not exceed \$3,000,000 for fiscal year 1977 and \$10,000,000 for fiscal year 1978. (§ 1 ch 190 SLA 1976; am §§ 12, 13 ch 154 SLA 1977; am §§ 6, 7 ch 59 SLA 1979; am §§ 5, 6 ch 106 SLA 1980; am § 1 ch 32 SLA 1982)

Effect of Amendments. The 1979 amendment substituted "a royalty assessment" for "an assessment" in the first sentence of subsection (b) and inserted "royalty" preceding "assessments" in subsection (c).

Sec. 16.10.507. SPECIAL ACCOUNT ESTABLISHED. (a) There is established as a special account within the fisheries enhancement revolving loan fund the foreclosure expense account. This account is established as a reserve from fund equity.

(b) The commissioner may expend money credited to the foreclosure expense account when necessary to protect the state's security interest in collateral on loans made under AS 16.10.520 or to defray expenses incurred during foreclosure proceedings after a default by an obligor.

Sec. 16.10.510. POWERS AND DUTIES OF THE COMMISSIONER. The commissioner may:

(1) make loans to permit holders, under AS 16.10.400—16.10.470, including those holders issued permits before June 24, 1977, for the planning, construction, and operation of hatchery facilities;

(2) make loans to qualified regional associations which have formed a nonprofit corporation or a local nonprofit corporation approved by a qualified regional association, for preconstruction activities necessary to obtain a permit;

(3) designate agents and delegate powers to them as necessary;

(4) adopt regulations necessary to carry out his functions;

(5) establish amortization plans for repayment of loans, not to exceed 30 years;

(6) establish the rate of interest for loans not to exceed nine and one-half percent a year;

(7) establish regional and local offices and advisory groups to carry out, or assist in carrying out, his duties and authority;

(8) [Repealed by § 77 ch 106 SLA 1980.]

(9) make grants for organizational and planning purposes to qualified regional associations which have formed a nonprofit corporation, in amounts not exceeding \$100,000 per region and up to an additional \$100,000 on a 50/50 cash matching basis with the regional associations which have an authorized royalty assessment under AS 16.10.530 or AS 16.10.540. The state portion of the matching share shall be available when a final vote for assessments is made under AS 16.10.530 or AS 16.10.540. This provision also applies to qualified regional associations which have formed a nonprofit corporation before June 24, 1977;

(10) make loans to qualified regional associations which have formed a nonprofit corporation or to local nonprofit corporations approved by qualified

190. Review procedure schedule
200. Completeness determination
210. Public hearing
220. Review and determination
230. Reconsideration

5 AAC 40.110. AUTHORITY. The commissioner will review and take action on each application for a private nonprofit salmon hatchery. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.400

5 AAC 40.120. PRE-APPLICATION ASSISTANCE. An applicant may request assistance in preparing an application or conducting related activities. The PNP coordinator, or the department area management biologist, will provide assistance to the extent practicable. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.400

5 AAC 40.130. MANAGEMENT FEASIBILITY ANALYSIS. (a) The department will assist an applicant by preparing a management feasibility analysis for each proposed hatchery site. The analysis will be completed before submittal of an application for a private nonprofit salmon hatchery permit. An analysis is based on information provided by the applicant to the PNP coordinator, including

- (1) the location of the facility;
- (2) the species desired for hatchery production;
- (3) the run timing, by species;
- (4) the incubation and rearing levels desired during the first reproductive cycle, by species; and
- (5) the incubation and rearing levels desired at full capacity, by species.

(b) Within 30 days after receipt by the PNP coordinator of the information described in (a) of this section, the department will complete a management feasibility analysis of the proposed hatchery. A management feasibility analysis includes, at a minimum, the following information:

- (1) an estimate of potential contributions to the common property fishery;
- (2) potential size and location of a special harvest area;
- (3) special management considerations or the need for additional studies;
- (4) potential brood stock sources;
- (5) an assessment of production potentials for each species; and
- (6) additional factors considered by the department to be relevant to the proposed hatchery operation. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.400

§ AAC 40.140. PERMIT APPLICATION. An application for a hatchery permit must be submitted to the PNP coordinator. The PNP coordinator will provide an application form upon request. The application must include a completed management feasibility analysis. The applicant shall provide, in the permit application, detailed statements of operational goals, objectives, and plans. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.400

§ AAC 40.150. APPLICATION FEE. An application must be accompanied by the fee required by AS 16.10.400. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.400

§ AAC 40.160. ACCEPTANCE DETERMINATION. The PNP coordinator will review an application submitted for acceptance. If the PNP coordinator determines that the application is not acceptable, the PNP coordinator will request additional information in writing from the applicant. The review period described in § AAC 40.190, Schedule A, begins when the management feasibility analysis is completed and the application is accepted. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.400

ALASKA STATUTES

TITLE 16. FISH AND GAME

Chapter 10. Fisheries and Fishing Regulations

Article 9. Fisheries Enhancement Loan Program

Section

- 500. Declaration of policy
- 505. Fisheries enhancement revolving loan fund
- 507. Special account established
- 510. Powers and duties of the commissioner
- 520. Limitation on loans
- 525. Repayment of principal and interest on loans
- 530. Royalty assessment on sale of salmon
- 540. Voluntary assessment on sale of salmon
- 550. [Repealed]
- 555. Disposal of property acquired by default or foreclosure
- 560. Definitions
- 600. Creation of authorities
- 610. Tax exemption
- 620. Powers of the authority

Sec. 16.10.500. DECLARATION OF POLICY. It is the policy of the state, under AS 16.10.500 - 16.10.550, to promote the enhancement of the state's fisheries by means of grants for organization and planning purposes to regional associations described in AS 16.10.510 which have qualified under AS 16.10.380, and by means of long-term, low interest loans for hatchery planning, construction, and operation and for planning and implementation of enhancement and rehabilitation activities including, but not limited to, lake fertilization and habitat improvement. (§ 1 ch 190 SLA 1976; am § 7 ch 154 SLA 1977; am § 2 ch 106 SLA 1980)

Editor's Notes. AS 16.10.550, *referred to in this section, was repealed by* § 14, ch 122, SLA 1980.

Sec. 16.10.505. FISHERIES ENHANCEMENT REVOLVING LOAN FUND. There is created within the Department of Commerce and Economic Development a revolving fund to be known as the fisheries enhancement revolving loan fund. The fund shall be used to carry out the purposes of AS 16.10.500 - 16.10.550 and for no other purpose. (§ 8 ch 154 SLA 1977)

5 AAC 41.090. DELEGATION OF AUTHORITY. For the purposes of administering this chapter, the commissioner may delegate his authority to designated employees of the department.

Authority: AS 16.05.020(2) and (3)
AS 16.05.270

5 AAC 41.100. DEFINITIONS. In addition to the definitions set out in AS 01.10.060 and AS 16.05.940, in this chapter

(1) "completed application" means a form, series of forms, letters or other documents which provide all of the information necessary for the commissioner or his authorized designee to issue, condition or deny a permit;

(2) "department regional office" means the Alaska Department of Fish and Game, Fisheries Rehabilitation, Enhancement and Development Division offices located as follows:

Region I—Southeastern Region
Island Center Building
P.O. Box 20
Douglas, Alaska 99624-0020

Region II—Central, Westward and
Arctic-Yukon-Kuskokwim Region
333 Raspberry Road
Anchorage, Alaska 99502

(3) "fish pathology section" means the Alaska Department of Fish and Game, Fisheries Rehabilitation, Enhancement and Development Division, Fish Pathology Section, located at 333 Raspberry Road, Anchorage, Alaska 99502, telephone (907)344-0541;

(4) "ornamental fish" means a fish commonly known as "tropical fish," "aquarium fish," or "goldfish" which are imported, cultured, or sold in the state customarily for viewing in aquaria or for raising in artificial systems, and not customarily used for sport fishing or human consumption purposes;

(5) "permit" means a fish transport permit, including any amendment or condition issued or approved by the commissioner or his authorized designee, which has not been suspended, terminated or expired;

(6) "permittee" means the holder of a permit and includes anyone employed, contracted, or assigned by the person to whom the permit was issued.

Authority: AS 16.05.251(a)(4),(8)and(10)

5 AAC 40.170. REGIONAL PLANNING TEAM REVIEW. (a) The appropriate regional planning team, as established under 5 AAC 40.300, shall review each application to determine if the proposed hatchery is compatible with the appropriate regional comprehensive salmon plan. The regional planning team shall use the following application review criteria:

(1) the contribution the proposed hatchery would make to the common property fishery;

(2) the provisions for protection of the naturally occurring stocks from any adverse effects which may originate from the proposed hatchery;

(3) the compatibility of the proposed hatchery with the goals and objectives of the comprehensive salmon plan for the region; and

(4) whether the proposed hatchery would make the best use of the site's potential to benefit the common property fishery.

(b) An applicant may review the regional planning team determination and comment on it by letter to the commissioner. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.375
AS 16.10.400

5 AAC 40.180. ADDITIONAL INFORMATION. If, after an application has been accepted by the PNP coordinator, the department determines that information in the application is insufficient for the adequate evaluation of the proposed hatchery, the PNP coordinator will request additional information from the applicant. Time frames applicable to the department review in 5 AAC 40.190, Schedule A are suspended until additional information is received and accepted by the PNP coordinator. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.400

HATCHERY PERMIT APPLICATION—REVIEW PROCEDURE SCHEDULE A

Salmon Rehabilitation Enhancement Coordinator	Regional Planning Team Review	FRED Technical Staff	Management and Regional Staff Review	Basic Management Plan (BMP)	Comments
Applicant submits application Review for acceptance If incomplete returns to applicant for additional information and resubmittal	Reviews application to determine if proposal is consistent with the regional plan. Sends recommendation to the Commissioner.	Reviews application, submits comments, or requests additional information	Reviews application and submits comments to the coordinator or requests additional information	BMP is drafted by area staff, applicant, and PNP office	Schedules public hearing (AS 16.05.251 and 5 AAC 40.280)

TIME

Day 1

Day 60

1. Processing of application will not proceed until all requested information has been received.
2. All requests for additional information during the review period will be directed to the coordinator.
3. Review time frames are suspended until additional information is received and accepted.

Renibacterium salmoninarum—bacterial kidney disease (BKD);
Flexibacter columnaris—columnaris disease;
Henneguya—spp.—myxosporidian disease of fish and shellfish;
Ichthyophthirius multifiliis—fungal or haplosporidian disease of fish;
Minchinia nelsoni—a haplosporidian disease of shellfish; and
Ocenebra japonica—an oyster drill;

(3) Class III—Diseases of Concern.

Vibrio alginolyticus—vibriosis in fish and shellfish;
Vibrio anguillarum—vibriosis in fish and shellfish;
Aeromonas hydrophila—aeromonad septicemia;
Ichthyobodo—spp.—costiasis in fish and shellfish;
Hexamita—protozoan disease of salmonids and shellfish;
Trichodina—spp.—external fish parasite;
Diplostomum—spp.—eye fluke disease of fishes; and
Mytilicola orientalis—an endoparasitic copepod of shellfish.

(c) Diseases reported under (d) of this section, if found by inspection under (c) of this section, must be treated by taking steps acknowledged by the fish pathology section to be effective in eliminating the disease. Containers or facilities must be disinfected by the permittee in a manner directed or approved by the commissioner or his authorized designee. Presence of any of these diseases, or any other disease not previously observed in Alaska, may be cause for the commissioner or his authorized designee to prohibit stocking of the fish in new areas, and to quarantine the permittee's facility until disinfected.

(f) Stocks of fish in hatcheries or rearing facilities in which a Class I disease has been detected must be immediately destroyed by the permittee if the commissioner or his authorized designee determines that the disease is new to the area, the disease is a different strain of a disease than occurs locally, or if the disease poses a threat to the health and perpetuation of native, wild, or hatchery stocks of fish in the hatchery effluent watershed or the intended release location. In limited circumstances, the commissioner or his authorized designee may allow retention or transportation of these diseased fish under controlled conditions that pose no threat to native, wild, or hatchery stocks of fish (e.g., movement to a disease laboratory).

(g) Stocks of fish in hatcheries or rearing facilities in which a Class II disease has been detected must be immediately destroyed by the permittee if the commissioner or his authorized designee determines that the disease poses a threat to the health and perpetuation of native, wild, or hatchery stocks of fish in the hatchery effluent watershed or the intended release location.

Authority: AS 16.05.251(a)(4),(8)and(10)

into the waters of the state. Fish wastes and waste water from ornamental fish may not be released directly into the waters of the state.

Authority: AS 16.05.251 (a)(4),(8)and(10)

5 AAC 41.000. REPORTING AND CONTROL OF FISH DISEASES AT EGG-TAKE SITES, HATCHERIES, AND REARING FACILITIES. (a) The requirements of this section apply to all public and private egg-take programs, fish hatcheries, and fish rearing facilities in the state.

(b) Within 24 hours of transporting live fish eggs between watersheds, all eggs must be treated, for at least 10 minutes, with an iodine solution of at least 100 parts per million of active iodine ingredient, with pH at least 6.0 or greater, or in a manner approved by the fish pathology section of the department. This requirement does not apply to shellfish eggs.

(c) Each fish hatchery or fish rearing facility must be inspected by the department's fish pathology section at least once each year at least two weeks prior to the transport or release of fish. The commissioner or his authorized designee may require and conduct additional inspections if the disease history of the stock or facility is incomplete, or if the disease history or current condition of the stock evidences incidence of disease.

(d) The occurrence of any of the following pathogens or disease of fish must immediately be reported to the department's fish pathology section:

(1) Class I—Diseases of Critical Concern.

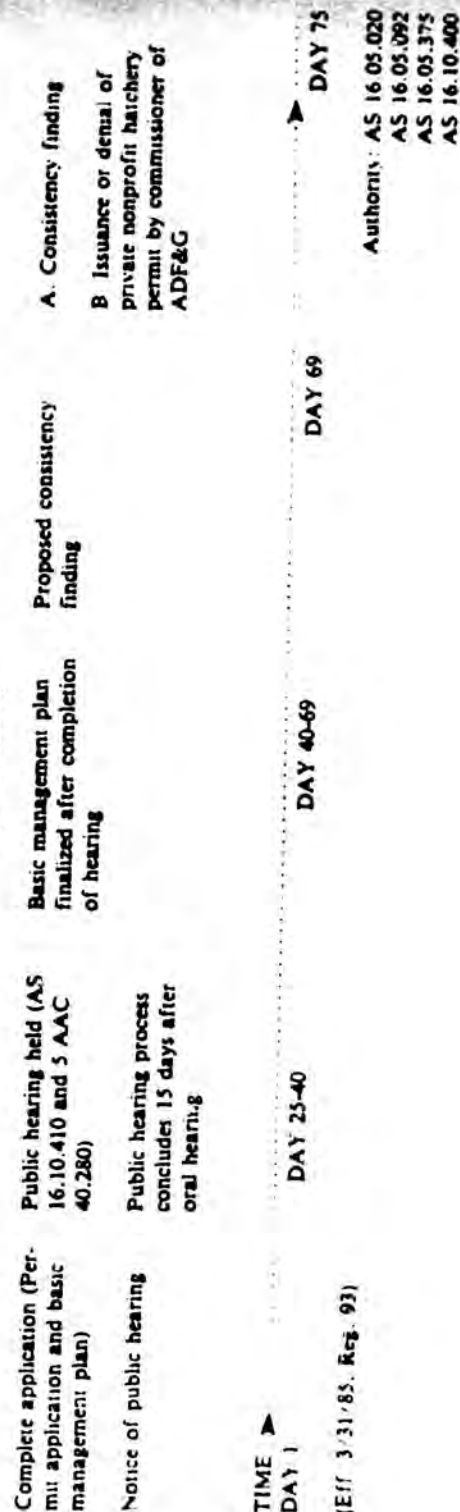
Infectious Pancreatic Necrosis Virus (IPNV)—trout pancreatic virus;
Viral Hemorrhagic Septicemia Virus (VHSV)—Egtved virus;
Pike Fry Rhabdovirus;
Spring Viremia of Carp (SVC)—a carp virus of potential danger to native cyprinids;
Ceratomyxa shasta—myxosporidian disease of salmonids;
Myxosoma cerebralis—whirling disease; and
Mytilicola intestinalis—an endoparasitic copepod of shellfish.

(2) Class II—High-risk Diseases.

Infectious Hematopoietic Necrosis Virus (IHNV)—sockeye or chinook salmon kidney virus;
Herpesvirus salmonis—low-temperature virus;
Viral Erythrocytic Necrosis (VEN)—intranuclear virus of marine fish;
Vibrio parahaemolyticus—vibriosis in fish and shellfish;
Aeromonas salmonicida—furunculosis;
Yersinia ruckeri—enteric redmouth disease;

CONSISTENCY FINDING AND ISSUANCE OF PRIVATE NONPROFIT HATCHERY PERMIT

(AS 16.10.400)



5 AAC 40.200. COMPLETENESS DETERMINATION. For the purpose of complying with the project consistency review of the Alaska Coastal Management Program, as outlined in 6 AAC 50.010 6 AAC 50.190, a completed application for a private nonprofit hatchery permit must include both an application which has been accepted by the PNP coordinator and a draft basic management plan, prepared under 5 AAC 40.820, for the operation of the facility. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.400

5 AAC 40.210. PUBLIC HEARING. (a) The department will conduct a public hearing on each completed permit application. The commissioner will give notice of public hearing at any time after acceptance of an application. The notice will be given at least 25 days before a public hearing, and the notice will, in the commissioner's discretion, be given before the completion of the draft basic management plan. The hearing will be held under the following sequential procedures:

- (1) the commissioner will make an introductory statement;
 - (2) the applicant shall make a presentation of the proposed hatchery plans, describing its location, incubation plans, the capacity of the facility, the donor stock source, and other relevant facts that may be of interest to the department or the public;
 - (3) the department will present the draft of the basic management plan for the proposed facility, including a presentation of fish culture aspects, production considerations, and a presentation of the management section of the basic management plan by the local commercial fisheries and sport fisheries area management biologist; and
 - (4) the commissioner will open the floor for public testimony and questions on all aspects of the proposed facility.
- (b) The department will respond in writing within 10 working days to any specific objections offered by a member of the public at the hearing.
- (c) The department will accept written comments for 15 days after the hearing, and will respond in writing, within 10 working days after receipt, to any specific objections received within that time. The public hearing process concludes 15 days after the oral hearing is held. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.410

5 AAC 41.040. RETENTION OF PERMIT FOR INSPECTION. (a) After issuance a copy of the permit including any amendments must be retained by the permittee, and be made available upon request for inspection by a representative of the department, or a law enforcement officer of the Department of Public Safety.

(b) For the purpose of inspecting and monitoring compliance with the terms of the permit or the requirements of this chapter for the continued health and perpetuation of native, wild, or hatchery stocks of fish, each permittee shall give authorized representatives of the department, and law enforcement officers of the Department of Public Safety, free and unobstructed access at all times to permit sites. Each permittee shall give such assistance and furnish information the representative or law enforcement officer may reasonably require for monitoring and inspection.

Authority: AS 16.05.251(a)(4),(8)and(10)

Article 3. General Provisions

Section

70. Prohibitions on imports and release of live fish
80. Reporting and control of fish diseases at egg-take sites, hatcheries, and rear-facilities
90. Delegation of authority
100. Definitions

5 AAC 41.070. PROHIBITIONS ON IMPORTS AND RELEASE OF LIVE FISH. (a) Except as provided in (b) and (c) of this section, no person may import any live fish into the state for purposes of stocking or rearing in the waters of the state.

(b) Live oysters originating from locations other than Korea, the Gulf of Mexico, and the Atlantic Coast of North America, may be imported for aquaculture purposes and may be released into the waters of the state only pursuant to a permit required by this chapter. Live oysters native to and originating from Korea, the Gulf of Mexico, or the Atlantic Coast of North may be imported for aquaculture purposes pursuant to a permit required by this chapter and released into the waters of the state only if

(1) the brood stock is derived from oysters commercially cultured on the Pacific Coast of North America through three or more generations; and

(2) the disease history or an inspection indicates no incidence of disease that is not indigenous to Alaska.

(c) Ornamental fish not raised for human consumption or sport fishing purposes may be imported into the state, but may not be reared in or released

(c) The commissioner or his authorized designee will deny an application for a permit, or a request for amendment of a permit, if the applicant's proposed plans, methods, or specifications are not adequate, on the basis of fish disease, genetics, competition, predation, or other biological considerations, to assure the continued health and perpetuation of native, wild, or hatchery stocks of fish. Written notice of denial shall be given to the applicant, including the reasons for denial.

Authority: AS 16.05.251(a)(4),(8)and(10)

5 AAC 41.040. AMENDMENTS TO THE PERMIT. (a) A permittee may request amendment of a fish transport permit by submitting, in writing to the department regional office where the permit was issued, an amended plan and a statement explaining why the amendment is necessary.

(b) The commissioner or his authorized designee will issue an amendment to the permit upon a determination made pursuant to 5 AAC 41.030(a) or (b). The commissioner or his authorized designee will approve, condition or deny a request for amendment within 30 days after receipt of the request in the appropriate regional office.

(c) The commissioner or his authorized designee may alter or amend permit conditions if additional information or unforeseen changes allow relaxation, or changed circumstances affect the adequacy of permit terms and conditions.

Authority: AS 16.05.251(4),(8)and(10)

(d) Amendments approved by the commissioner or his authorized designee become effective when received by the permittee, or at a later date specified in the amendment. Unless otherwise specified, amendments remain valid for the duration of the permit.

Authority: AS 16.05.251(4),(8)and(10)

5 AAC 41.050. PERMIT CONDITIONS. The commissioner or his authorized designee may prescribe conditions on a permit to control the occurrence of fish disease, genetic change, or control other disturbances of biological origin affecting native, wild, or hatchery stocks of fish. These conditions may include designation of brood stock and release locations, methods of transport or release, quarantine and depuration requirements and procedures, disease inspections, disposal of wastes and effluents, timing of transportation and release, reporting requirements, and other measures necessary to achieve the purposes of 5 AAC 41.

Authority: AS 16.05.251(a)(4),(8)and(10)

5 AAC 40.220. REVIEW AND DETERMINATION. (a) The commissioner will review the following information, compiled by the PNP coordinator, before rendering a decision on an application:

(1) recommendations from the regional planning team;

(2) recommendations resulting from the department's review of the application; and

(3) the results of the public hearing regarding the proposed facility.

(b) The commissioner will render a decision on the completed application, and notify the applicant in writing, within 75 calendar days after an application is complete. The commissioner's decision will be based on the following considerations:

(1) The physical and environmental nature of the proposed location must be suitable for enhancing runs or for establishing new runs, and must have the potential to make a reasonable contribution to the common property fishery. The proposed hatchery returns may not unreasonably or adversely affect management of natural stocks. The returns for the proposed hatchery may not require significant alterations in traditional fishery time, area, gear type, or user group allocations.

(2) The operation of the proposed hatchery must make the best use of the site's potential, to benefit the common property fishery. In order to achieve optimum public benefit from the state's private nonprofit hatchery program and ensure that the proposed hatchery is in the best interests of the public, enhancement sites must be developed to their fullest potential, with consideration to appropriate species and technological use of the site.

(3) The proximity of the proposed hatchery to an area that will allow for a segregated harvest of hatchery stocks without adversely affecting natural stocks is an important factor. The harvest area of the proposed hatchery must be of sufficient size to allow harvest of hatchery returns, and may not otherwise limit harvests to a location where fish would not be expected to be of sufficient quality to satisfy the requirements of AS 16.10.450 regarding fish for human consumption.

(4) The proposed hatchery must have available donor sources that are approvable under 5 AAC 41. Proposed donor sources for hatchery brood stock must be able to meet necessary first-cycle egg take levels under department removal schedules.

(5) The proposed hatchery must have a secured water source and delivery system that is adequate for the proposed levels of incubation and rearing. The security of the water source must be demonstrated through the appropriate water

use permits, and hydrographs, chemical analysis of water source, and any provisions necessary for recycling and depuration.

(6) The proposed hatchery facility and water intake structures may not be located in streams or reaches of streams that have dynamic flooding characteristics or that have significant and rapid bedload transport that may endanger water intake galleries, weirs, the facility, or the reliability of the water source for the proposed hatchery.

(7) The proposed hatchery must allow for the maintenance of adequate in-stream flows below the hatchery or any hatchery-related facilities, such as water intake structures, to support natural stocks.

(8) The proposed hatchery plans and staffing plans must demonstrate a reasonable level of operational feasibility and an acceptable degree of potential success.

(c) If the application is approved, the commissioner will, as a condition of the permit, require the permit holder to provide for suitable fish passage facilities in order to accommodate acceptable upstream and downstream passage of fish. If passage facilities are determined by the department to be necessary. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.375
AS 16.10.400

5 AAC 40.230. RECONSIDERATION. An application for a private nonprofit salmon hatchery permit which has been denied by the commissioner will, in the commissioner's discretion, be reconsidered if the applicant provides new or additional information that may have altered the original decision. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.400

Article 5. Regional Comprehensive Planning

Section

- 300. Regional planning teams in general
- 310. Regional planning team composition
- 320. Chairman of regional planning team
- 330. Quorum and voting
- 340. Regional planning team responsibility

(10) the method of transport or release and the expected date of transport or release;

(11) the purpose and expected benefits of the transport or release; and

(12) evaluation plans.

(b) A completed application must be submitted to the department regional office in the region in which the proposed transport or release will occur.

(c) If the commissioner or his authorized designee determines that an application is incomplete and that further information is necessary, the department will return the application to the applicant with a description of the deficient information.

(d) The commissioner or his authorized representative will approve, condition, or deny a permit within 45 days after a completed application containing all of the applicable information listed in (a) of this section has been received in the appropriate regional office. (In effect before 1982; am 7/25/82, Reg. 83)

Authority: AS 16.05.251(a)

5 AAC 41.020. INSPECTION FOR DISEASE OF BROOD STOCK. If the disease history of the brood stock is unavailable or incomplete as required by 5 AAC 41.010(a)(5), an inspection of the brood stock to detect fish disease must be scheduled by the applicant and conducted by the fish pathology section of the department, or by a person designated by the fish pathology section. The applicant must submit samples of the brood stock as directed by the fish pathology section for the purpose of inspection. The applicant will receive a certification from the fish pathology section upon successful completion of the inspection.

Authority: AS 16.05.251(a)(4),(8) and (10)
AS 16.05.868

5 AAC 41.030. PERMIT ISSUANCE OR DENIAL. (a) The commissioner or his authorized designee will issue a fish transport permit if it is the department's determination that the proposed transport, possession or release of fish will not adversely affect the continued health and perpetuation of native, wild, or hatchery stocks of fish; or

(b) The commissioner or his authorized designee will issue a fish transport permit with terms and conditions attached if it is the department's determination that the terms and conditions are necessary to protect the continued health and perpetuation of native, wild, or hatchery stocks of fish.

(c) The commissioner shall suspend the permit, or particular provisions of the permit including amendments, if he finds

(1) on the basis of new information or changed circumstances, that the permitted activity will adversely affect the continued health and perpetuation of native, wild, or hatchery stocks of fish; or

(2) the permittee has failed to comply with permit terms or the provisions of this chapter.

(d) Notwithstanding the expiration, termination or suspension of a fish transport permit, each permittee is responsible for the obligations arising under the terms and conditions of the permit, and under the provisions of this chapter.

Authority: AS 16.05.251 (a)(4),(8),(10) and (12)

5 AAC 41.010. UNIFORM APPLICATION PROCEDURES. (a) Each applicant for a fish transport permit shall submit the following information to the department:

(1) identification of each species and location of the stock to be transported, possessed or released;

(2) the destination of the transported fish and the release site;

(3) the number of fish and their life history stage or age;

(4) a descriptive history of previous transport, if any;

(5) a statement on the health or condition of the fish, including a disease history of the stock, a disease history of the hatchery or rearing facilities through which they may have passed, and any previous disease treatments or vaccinations, or, if the disease history is incomplete or unavailable a brood stock inspection and certification pursuant to 5 AAC 41.020;

(6) isolation measures planned to control disease during transport, including a description of containers, water source, depuration measures, and plans for disinfection;

(7) a description of proposed egg-take methods;

(8) the source of water for rearing and proposed effluent discharge location;

(9) identification and status of native stocks in the area of taking, retention and release site, including a statement of expected interactions with other stocks in these areas;

350. Public notice

360. Public involvement

370. Plan approval

5 AAC 40.300. REGIONAL PLANNING TEAMS IN GENERAL. The commissioner will establish regions and regional planning teams for the primary purpose of developing comprehensive salmon plans for various regions of the state. The provisions of 5 AAC 40.300—5 AAC 40.370 govern the structure and functions of each regional planning team and the development of a comprehensive salmon plan for each region. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020

AS 16.05.092

AS 16.10.375

5 AAC 40.310. REGIONAL PLANNING TEAM COMPOSITION. (a) Each regional planning team consists of six members. Three are department personnel appointed by the commissioner, and three are appointed by the board of directors of the appropriate regional aquaculture association, qualified under AS 16.10.380.

(b) The commissioner will, in his or her discretion, request the involvement of representatives of federal and state agencies to assist a regional planning team if their contribution will aid in the development of the regional comprehensive plan. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020

AS 16.05.092

AS 16.10.375

AS 16.10.380

5 AAC 40.320. CHAIRMAN OF REGIONAL PLANNING TEAM. (a) Each regional planning team shall elect a chairman to serve at the pleasure of the team.

(b) The chairman or his delegate shall

(1) conduct regional planning team meetings, including recording of proceedings, and employing agreed-upon rules of order;

(2) set the agenda and meeting time and place for regional planning team meetings; and

(3) coordinate regional planning team staff in the accomplishment of tasks assigned to the chairman by the team, including

(A) providing the commissioner with team communication requiring commissioner review or approval;

(B) contacting members to determine who will be attending the next scheduled meeting; and

(C) preparing minutes of the previous meeting.

(Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.375

5 AAC 40.330. QUORUM AND VOTING. A regional planning team may not transact business without a simple majority of four members. Voting procedures may be established at the discretion of the membership. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.375

5 AAC 40.340. REGIONAL PLANNING TEAM RESPONSIBILITY. Each regional planning team shall prepare a regional comprehensive salmon plan, for the appropriate region, to rehabilitate natural stocks and supplement natural production, with provisions for both public and private nonprofit hatcheries. Each regional planning team shall consider the needs of all user groups and ensure that the public has opportunity to participate in the development of the comprehensive salmon plan. Each regional comprehensive plan must define regional production goals by species, area, and time. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.375

5 AAC 40.350. PUBLIC NOTICE. The chairman of the regional planning team, or his designee, shall give two weeks' notice, in a newspaper of general circulation in the appropriate region, of a planning team meeting. The chairman shall also give notice to radio and television stations in the appropriate region, for broadcast as no-cost public service messages. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.375

Chapter 41. Transportation, Possession, and Release of Live Fish

Article

1. Scope of Regulations (5 AAC 41.001)
2. Permit System Established (5 AAC 41.005 — 5 AAC 41.060)
3. General Provisions (5 AAC 41.070 — 5 AAC 41.100)

Article 1. Scope of Regulations

Section

1. Application of this chapter

5 AAC 41.001. APPLICATION OF THIS CHAPTER. The provisions of this chapter govern the transportation, possession, or release of live fish transplanted for or cultivated for human consumption or sport fishing purposes, or as part of an aquaculture program for scientific, educational or propagative purposes. Unless specifically provided, the provisions of this chapter do not apply to the cultivation of ornamental fish. Additionally, the provisions of this chapter do not apply to the transportation, possession, or release of fish taken for commercial, sport, or subsistence purposes.

Authority: AS 16.05.251 (a) (4), (8) and (10)

Article 2. Permit System Established

Section

5. Permit required
10. Uniform application procedures
20. Inspection for disease of brood stock
30. Permit issuance or denial
40. Amendments to the permit
50. Permit conditions
60. Retention of permit for inspection

5 AAC 41.005. PERMIT REQUIREMENTS. (a) No person may transport, possess, export from the state, or release into the waters of the state, any live fish unless the person holds a fish transport permit issued by the commissioner or his authorized designee, and the person is in compliance with all conditions of the permit and the provisions of this chapter. A fish transport permit will be issued for a fixed term subject to the provisions of (c) of this section.

(b) A fish transport permit authorizes only that operation specified in the permit. Any change of species, brood stock, or location requires a new permit. Any other change requires an amendment to the permit.

(B) the number of hatchery-produced fish taken for the hatchery harvest requirement, to be used to pay for the hatchery's reasonable operating and capital costs, at current market prices for the species involved;

(7) "permit" means a private nonprofit salmon hatchery permit, issued by the commissioner, which has not been suspended or revoked;

(8) "PNP coordinator" means the salmon rehabilitation and enhancement coordinator of the private nonprofit hatchery program within the Department of Fish and Game;

(9) "regional comprehensive salmon plan" is a document that integrates and assembles all relevant information regarding the development and protection of the salmon resource, for a specific long-range period of time, into a strategic plan for an established region of the state;

(10) "rehabilitation" means a strategy directed toward restoring debilitated natural stocks to optimum production levels; rehabilitation strategies consist of regulatory and nonregulatory activities; nonregulatory activities are directed at increasing the survival of debilitated brood stock and include removal of migration inhibitors, stream restoration, incubation and subsequent planting of eyed eggs, fry and fingerlings, lake fertilization and predator-competitor control;

(11) "salmon stock" means a population of salmon of a single species identified with a specific water system or portion of a water system, which share a common spawning period;

(12) "special harvest area" means an area designated by the commissioner or the Board of Fisheries where hatchery returns are to be harvested by the hatchery operators, and, in some situations by the common property fishery; and

(13) "terminal harvest area" means an area designated by the commissioner, Board of Fisheries regulation, or department emergency order where hatchery returns have achieved a reasonable degree of segregation from naturally occurring stocks and may be harvested by the common property fishery without adverse effects. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.375
AS 16.10.475

5 AAC 40.340. PUBLIC INVOLVEMENT. Each regional planning team shall encourage public participation during all stages of the development and review of regional comprehensive salmon plans. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.375

5 AAC 40.370. PLAN APPROVAL. (a) A draft regional comprehensive salmon plan must be submitted to the PNP coordinator for department review and comment.

(b) The draft regional comprehensive salmon plan must be distributed for public review.

(c) The regional planning team shall respond to comments received as a result of these reviews, and may incorporate them in the final draft of the regional comprehensive salmon plan.

(d) The regional planning team shall submit a final draft of the regional comprehensive salmon plan to the commissioner for review and approval. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.375

Article 8. General Provisions

Section

- 800. Nontransferability of permits
- 810. Preference right
- 820. Basic management plans
- 830. Hatchery inspection
- 840. Annual management plans
- 850. Notice of permit alteration
- 860. Performance review
- 870. Reporting of mortality
- 880. Surplus salmon eggs
- 890. Information
- 990. Definitions

5 AAC 40.800. NONTRANSFERABILITY OF PERMITS. A hatchery permit is not transferable. Another person wishing to obtain a permit to operate a hatchery at a location which is already a currently permitted site, shall submit an application, which is subject to the same application review schedule as outlined in 5 AAC 40.110-5 AAC 40.230. If the assets, or control, of a private nonprofit corporation that holds a hatchery are transferred to a degree considered substantial by the department, the corporation shall submit a new application for a hatchery permit. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.05.400

5 AAC 40.810. PREFERENCE RIGHT. (a) A preference right under AS 16.10.400 applies to a potential hatchery site, and does not constitute an approval of a permit.

(b) As part of the pre-application assistance described in 5 AAC 40.120, the PNP coordinator will inform the applicant whether a qualified regional association or an approved local nonprofit hatchery corporation has an established preference right to the identified site.

(c) The PNP coordinator will notify the appropriate qualified regional association, by certified letter, of an applicant's intent to apply for a hatchery site if that site has been identified as a potential hatchery site in the comprehensive plan for the region.

(d) Within three weeks after receiving the notification, the qualified regional association may respond, by certified letter, to the PNP coordinator to establish a preference right at that location.

(e) If the qualified regional association exercises a preference right for that site, the association may, within one year, submit an application for acceptance. If an application is not submitted and accepted within one year, the qualified regional association relinquishes its preference right to that location.

(f) A local nonprofit hatchery corporation is eligible to establish a preference right to a proposed site if the corporation receives approval from the qualified regional association. That preference right is identical to the one which can be established by a qualified regional association.

(g) A local nonprofit hatchery corporation seeking regional association approval shall send a notice, by certified letter, to the PNP coordinator at the same time that a certified letter requesting approval is sent to the qualified regional association.

(d) The appropriate fish-transport permit must be approved by the commissioner before any surplus salmon eggs are transferred from the facility to the recipient facility. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.450

5 AAC 40.890. INFORMATION. The department will exchange information with the Department of Commerce and Economic Development, including copies of annual reports required to be submitted under AS 16.10.470, in order to ensure consistency between reports submitted by the permit holder to both agencies. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.470

5 AAC 40.990. DEFINITIONS. In this chapter,

(1) "commissioner" means the commissioner of the Department of Fish and Game or his designee;

(2) "common property fishery" means any fishery in which the general public is allowed to harvest fish subject to state and federal law;

(3) "completed application" means a final application which has been accepted by the commissioner and which contains a draft basic management plan for the operation of the facility;

(4) "department" means the Alaska Department of Fish and Game;

(5) "enhancement" means a strategy designed to supplement allowable harvest of natural freshwater and anadromous species; enhancement activities are primarily designed to implement artificial or semi-artificial production systems or to increase the amount of productive natural habitat;

(6) "escapement" means all fish that escape the common property fishery and includes two categories of escapement;

(A) the number of brood stock or spawners required to perpetuate and achieve natural, semi-artificial, and artificial production objectives; and

5 AAC 40.870. REPORTING OF MORTALITY. (a) If, in any of the hatchery operations during the year, an event occurs which results in fish or egg mortalities above the minimum hatchery survival standards defined in 5 AAC 40.860, the operator shall inform the PNP coordinator immediately and shall submit an incident report, which must include

- (1) a description of the nature of the incident;
 - (2) the cause of the incident;
 - (3) the time of the incident;
 - (4) the effect on the stocks;
 - (5) corrective action taken and proposed measures to eradicate future problems; and
 - (6) an assessment of the general impact on the program.
- (b) The operator shall complete and submit the mortality incident report to the PNP coordinator within 15 days after the incident occurs. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.400

5 AAC 40.880. SURPLUS SALMON EGGS. (a) Salmon eggs are surplus if the following conditions are met:

- (1) the hatchery operator no longer needs to return to the indigenous stocks in order to develop the broodstock for the hatchery; and
 - (2) broodstock needs for the hatchery, as identified in the annual management plan, must have been achieved through salmon returning to the facility.
- (b) A proposed sale of surplus salmon eggs by a permit holder must be identified in the annual management plan for the facility.
- (c) A permit holder shall obtain a permit alteration from the commissioner if the eggs taken for sale purposes are to be incubated at the facility before transfer to the recipient facility.

(h) All applicants for a permit, including local nonprofit corporations, local nonprofit hatchery corporations approved by the qualified regional association, and qualified regional associations, shall follow the application procedures outlined in 5 AAC 40.110—5 AAC 40.230 (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.400

5 AAC 40.820. BASIC MANAGEMENT PLANS. (a) Each hatchery operator shall manage the hatchery and its salmon returns in accordance with a basic management plan approved by the commissioner. Before the public hearing, held under 5 AAC 40.210, on the proposed hatchery, the department, in conjunction with the applicant, will develop a draft basic management plan. Department staff will present the draft at the public hearing and will make copies available for public review and comment at the hearing.

(b) If, following the public hearing, the commissioner decides to issue a permit for the proposed hatchery, the department will finalize the basic management plan after all comments have been considered. The final basic management plan describes the conditions under which the permit will be implemented, and is an addendum to the permit. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.400
AS 16.10.410
AS 16.10.443

5 AAC 40.830. HATCHERY INSPECTION. The permit holder shall notify the PNP coordinator when construction of the hatchery has been completed and the facility is ready for operation. The facility must be inspected and approved by the department before the permit holder may start operations. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.400
AS 16.10.460

5 AAC 40.840. ANNUAL MANAGEMENT PLANS. (a) Beginning with the first year of operation of the hatchery, and on an annual basis after that, the department will prepare, in conjunction with the permit holder, an annual management plan to guide and condition hatchery operations for the succeeding calendar year.

(b) The PNP coordinator will organize the appropriate department staff and the permit holder in preparing a draft annual management plan. The appropriate regional planning team and the Department of Commerce and Economic Development may also review the plan. This plan must organize and guide the hatchery's operations, for each calendar year, regarding production goals, broodstock development, and harvest management of hatchery returns. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.375
AS 16.10.400
AS 16.10.443

5 AAC 40.850. NOTICE OF PERMIT ALTERATION. (a) A hatchery permit holder may propose alteration of the permit and basic management plan, based on accumulated experience and changing conditions. The permit holder shall request, on a form provided by the PNP coordinator, a permit alteration for a proposed modification to the permit or change in the basic management plan for the hatchery.

(b) Requests for permit alterations must be received by the PNP coordinator, on the prescribed form, no later than February 15 of the calendar year that the proposed alteration is to occur. The commissioner will, in his or her discretion, extend the deadline for submittal of a permit alteration request, on a case-by-case basis, if the request is justified by extraordinary circumstances or emergency.

(c) The regional planning team may, if the commissioner so requests, review and make a recommendation to the commissioner on the permit alteration request.

(d) In reviewing the request, the commissioner will, in his or her discretion, consider past management practices and fish culture procedures associated with the request, the past performance of the hatchery, the recommendation of the regional planning team, and any additional information deemed necessary. (Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.400

5 AAC 40.860. PERFORMANCE REVIEW. (a) Based upon a department internal review, the PNP coordinator will notify the commissioner if a hatchery operator's performance is inadequate, according to the conditions under which the permit was granted.

(b) The commissioner will, in his or her discretion, consider a permit alteration, suspension, or revocation in accordance with AS 16.10.430. If the com-

missioner decides to consider a permit alteration, suspension, or revocation, the coordinator will notify the appropriate regional planning team. The regional planning team may make a written recommendation to the commissioner on the proposed alteration, suspension, or revocation. The regional planning team shall use the following performance standards in their review, evaluation, and recommendation to the commissioner, including whether:

(1) survivals in the hatchery are more than the minimum standards described in (c) of this section for a period of greater than four years;

(2) the transport of broodstock from wild sources does not continue for longer than one cycle of the particular species without reevaluation of hatchery operations;

(3) the hatchery contributes to the common property fishery;

(4) the hatchery does not significantly impact wild stocks in a negative manner;

(5) the hatchery fulfills the production objectives described in the terms of the hatchery permit; and

(6) there are any mitigating circumstances which were beyond the control of the hatchery operator.

(c) Minimum hatchery survival standards are as follows:

	Survival for this stage	Cumulative Survival
For captured broodstock to egg take	70%	
Green egg to eyed egg	80%	80%
Eyed egg to emergent fry	85%	68%
Emergent to fed fry ¹	90%	61%
Fed fry to fingerling ¹	90%	55%
Fingerling to smolt	75%	41%

¹ Fry achieving up to 25% weight gain from swim-up.

² Fry achieving substantially more than 25% weight gain from swim-up.

(Eff. 3/31/85, Reg. 93)

Authority: AS 16.05.020
AS 16.05.092
AS 16.10.375
AS 16.10.430

is not subject to the Administrative Procedure Act (AS 44.62). (§ 12 art I ch 94 SLA 1959; am § 1 ch 4 SLA 1963)

NOTES TO DECISIONS

Effect of orders. — Authorized by this section, emergency closure orders have the force and effect of law. *F/V Am. Eagle*, ADF&G No. 39 v. State, Sup. Ct. Op. No. 2227 (File Nos. 3973, 3974, 4023), 620 P.2d 657 (1980), appeal dismissed, 454 U.S. 1130, 102 S.Ct. 985, 71 L. Ed. 2d 284 (1982).

Vagueness of order. — An emergency order closing a shellfish district was not in terms so vague that men of common intelligence must necessarily guess at its meaning and differ as to its application, in violation of the due process rights of a fishing vessel's owners. *F/V Am. Eagle*, ADF&G No. 39 v. State, Sup. Ct. Op. No. 2227 (File Nos. 3973, 3974, 4023), 620 P.2d 657 (1980), appeal dismissed, 454 U.S. 1130, 102 S.Ct. 985, 71 L. Ed. 2d 284 (1982).

Area closures. — This section does not prohibit the closure of an entire statistical area of king crab stocks or district thereof. *F/V Am. Eagle*, ADF&G No. 39 v. State,

Sup. Ct. Op. No. 2227 (File Nos. 3973, 3974, 4023), 620 P.2d 657 (1980), appeal dismissed, 454 U.S. 1130, 102 S.Ct. 985, 71 L. Ed. 2d 284 (1982).

Use to enforce resource management plan. — If the Board of Fisheries properly adopted a plan for the management of state fishery resources, the Commissioner of the Department of Fish and Game could enforce that policy through the emergency order process. *Kenai Peninsula Fisherman's Coop. Ass'n v. State*, Sup. Ct. Op. No. 2358 (File No. 5072), 628 P.2d 897 (1981).

Selective closures. — The Commissioner of the Department of Fish and Game may use the emergency order process to close down one type of fishery and not another in order to implement a policy establishing priorities of use. *Kenai Peninsula Fisherman's Coop. Ass'n v. State*, Sup. Ct. Op. No. 2358 (File No. 5072), 628 P.2d 897 (1981).

Sec. 16.05.065. Application extension. (a) The commissioner shall extend the time and dates during which application may be made for fish or game registration if the commissioner finds that

(1) the conservation and management of the fish or game resource will not be affected adversely; and

(2) the failure to timely apply is the result of excusable neglect.

(b) The fee for an extension granted under this section is \$45.

(c) As used in this section, "excusable neglect" does not include unfamiliarity with or ignorance of applicable laws and regulations. In order to show excusable neglect, a person must have demonstrated, before the registration deadline, an intent to harvest fish or game. (§ 2 ch 196 SLA 1970; am § 1 ch 105 SLA 1977)

Sec. 16.05.070. Regulations as evidence. Regulations of the boards of fisheries and game and of the commissioner, including emergency openings and closures, are admissible as evidence in the courts of the state in accordance with the Administrative Procedure Act (AS 44.62). (§ 13 art I ch 94 SLA 1959; am § 1 ch 206 SLA 1975)

Sec. 16.05.080. Limitation of power. Nothing in this chapter authorizes the department or the boards of fisheries and game to change the amount of fees or licenses. (§ 14 art I ch 94 SLA 1959; am § 2 ch 206 SLA 1975)

Sec. 16.05.090. Organization of the department. (a) The commissioner may, with the approval of the governor, establish a departmental division of commercial fisheries, a departmental division of sport fisheries, a departmental division of game, and other departmental divisions as are necessary.

(b) The commissioner shall establish a departmental division of fisheries rehabilitation, enhancement and development.

(c) There is established in the department a section of subsistence hunting and fishing. (§ 15 art I ch 94 SLA 1959; am § 1 ch 113 SLA 1971; am § 2 ch 161 SLA 1978)

Editor's notes. — In a memorandum division status on the section of subsistence hunting and fishing signed April 14, 1981, the governor approved the commissioner's conferral of full

NOTES TO DECISIONS

Cited in *State v. Eluska*, Ct. App. Op. No. 456 (File No. A-210), 698 P.2d 174 (1985).

Sec. 16.05.092. Duties of division of fisheries rehabilitation, enhancement and development. The division of fisheries rehabilitation, enhancement and development shall

(1) develop and continually maintain a comprehensive, coordinated state plan for the orderly present and long-range rehabilitation, enhancement and development of all aspects of the state's fisheries for the perpetual use, benefit and enjoyment of all citizens and revise and update this plan annually;

(2) encourage the investment by private enterprise in the technological development and economic utilization of the fisheries resources;

(3) through rehabilitation, enhancement and development programs do all things necessary to insure perpetual and increasing production and use of the food resources of Alaska waters and continental shelf areas;

(4) make a comprehensive annual report to the legislature, containing detailed information regarding its accomplishments under this section and proposals of plans and activities for the next fiscal year, not later than 20 days after the convening of each regular session. (§ 2 ch 113 SLA 1971)

Sec. 16.10.400. Permits for salmon hatcheries. (a) The commissioner or a designee may issue a permit, subject to the restrictions imposed by statute or regulation under AS 16.10.400 — 16.10.470, to a nonprofit corporation organized under AS 10.20, after the permit application has been reviewed by the regional planning team, for

- (1) the construction and operation of a salmon hatchery;
- (2) the operation of a hatchery under AS 16.10.480.

(b) The application for a permit under this section shall be on a form prescribed by the department and be accompanied by an application fee of \$100. The commissioner may waive the submission of an application for a permit to operate a hatchery under AS 16.10.480.

(c) A hatchery permit is nontransferable. If a permit holder sells or leases a hatchery for which a permit is issued under this section, the new operator shall apply for a new permit under this section.

(d) [Repealed, § 19 ch 154 SLA 1977.]

(e) A qualified regional association formed under AS 16.10.380, if it has become a nonprofit corporation under AS 10.20, has a preference right to a permit under (a)(1) of this section if its proposed hatchery is provided for in the comprehensive plan for that region developed under AS 16.10.375 and the fresh water source exceeds one cubic foot per second minimum flow. Another local nonprofit hatchery corporation approved by a qualified regional association has an identical preference right.

(f) Except for permits issued before June 16, 1976, a permit may not be issued for construction or operation of a hatchery on an anadromous fish stream unless the stream has been classified as suitable for enhancement purposes by the commissioner. The commissioner shall undertake to make such classifications in conjunction with the development of the comprehensive plan under AS 16.10.375.

(g) During the development of a comprehensive plan for a region no permit may be issued for a hatchery unless the commissioner determines that such an action would result in substantial public benefits and would not jeopardize natural stocks. (§ 2 ch 111 SLA 1974; am § 3 ch 161 SLA 1976; am §§ 3, 19 ch 154 SLA 1977; am §§ 2 — 4 ch 14 SLA 1988)

Effect of amendments. — The 1988 amendment, effective March 31, 1988, in subsection (a), divided the formerly undivided language into an introductory paragraph and paragraph (1), and added para-

graph (2); added the second sentence in subsection (b); and, in subsection (e), inserted "under (a)(1) of this section" in the first sentence and substituted "Another" for "Any other" in the second sentence.

Sec. 16.10.410. Hearings before permit issuance. (a) At least 30 days before the issuance of a permit under AS 16.10.400, a public hearing shall be held in a central location in the vicinity of the proposed hatchery facility.

(b) Notice of the hearing shall be published in a newspaper of general circulation once a week for three consecutive weeks, with completion of the notice at least 10 days before the hearing.

(c) The hearing shall be conducted by the department. At a hearing for a permit under AS 16.10.400(a)(1), the applicant, shall present a plan for the proposed hatchery, describing the capacity of the hatchery and other relevant facts that may be of interest to the department or the public. Interested members of the public shall be afforded an opportunity to be heard.

(d) The department shall record and consider objections and recommendations offered by the public at the hearing conducted under this section. It shall respond in writing, within 10 days after the hearing is held, to any specific objections offered by a member of the public at the hearing. (§ 2 ch 111 SLA 1974; am § 5 ch 14 SLA 1988)

Effect of amendments. — The 1988 amendment, effective March 31, 1988, repealed and reenacted subsection (c), which formerly related to the transferability of the hatchery permit.

Sec. 16.10.450. Sale of salmon and salmon eggs by hatchery.

(a) Except as otherwise provided in a contract for the operation of a hatchery under AS 16.10.480, a hatchery operator who sells salmon returning from the natural waters of the state, or sells salmon eggs to another hatchery operating under AS 16.10.400 — 16.10.470, after utilizing the funds for reasonable operating costs, including debt retirement, expanding its facilities, salmon rehabilitation projects, fisheries research, or costs of operating the qualified regional association for the area in which the hatchery is located, shall expend the remaining funds on other fisheries activities of the qualified regional association.

(b) Fish returning to hatcheries and sold for human consumption shall be of comparable quality to fish harvested by commercial fisheries in the area and shall be sold at prices commensurate with the current market. (§ 2 ch 111 SLA 1974; am § 5 ch 154 SLA 1977; am § 6 ch 14 SLA 1988)

Effect of amendments. — The 1988 amendment, effective March 31, 1988, designated the formerly undesignated two sentences as subsections (a) and (b), added "Except as otherwise provided in a con-

tract for the operation of a hatchery under AS 16.10.480" at the beginning of subsection (a), and made a series of minor stylistic changes throughout the section.

Sec. 16.10.480. Contracts for the operation of state hatcheries.

(a) If the department determines that it is unable to continue operating a state-owned hatchery or that it is in the best interest of the state to provide for the operation of the hatchery by another person or by another person in cooperation with the state, the department may

(c) The hearing shall be conducted by the department. At a hearing for a permit under AS 16.10.400(a)(1), the applicant, shall present plan for the proposed hatchery, describing the capacity of the hatchery and other relevant facts that may be of interest to the department and the public. Interested members of the public shall be afforded an opportunity to be heard.

(d) The department shall record and consider objections and recommendations offered by the public at the hearing conducted under this section. It shall respond in writing, within 10 days after the hearing is held, to any specific objections offered by a member of the public at the hearing. (§ 2 ch 111 SLA 1974; am § 5 ch 14 SLA 1988)

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(b) Fish returning to hatcheries and sold for human consumption shall be of comparable quality to fish harvested by commercial fisheries in the area and shall be sold at prices commensurate with the current market. (§ 2 ch 111 SLA 1974; am § 5 ch 154 SLA 1977; am § 6 ch 14 SLA 1988)

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(a) If the department determines that it is unable to continue operating a state-owned hatchery or that it is in the best interest of the state to provide for the operation of the hatchery by another person or by another person in cooperation with the state, the department may enter into a contract for the operation or cooperative operation of the hatchery.

(b) Notwithstanding AS 36.30, when selecting a contractor under (a) of this section, the department shall give a preference to the re-

regional association organized under AS 16.10.380 that is located in the region in which the hatchery is located. If the department determines that the preferred regional association does not meet the criteria established by the department for the contract, the department may not award the contract to the preferred regional association and shall procure the contract under AS 36.30 after considering the recommendations of the preferred regional association.

(c) A contract entered into under this section must provide that the hatchery will be operated under AS 16.10.400 — 16.10.445 and 16.10.460 — 16.10.470 and the regulations adopted under those sections.

(d) The department may issue to a contractor who operates a hatchery under this section a permit to harvest adult salmon during the term of the contract in a quantity sufficient to allow the contractor to recover all or part of the contractor's costs of operating the hatchery.

(e) A contract under this section for the operation of a hatchery may not affect the state's ownership of the hatchery and does not affect the state's responsibility to manage the resource.

(f) The operation of a hatchery under a contract authorized by this section shall be conducted in accordance with the fisheries management and production goals of the department, and must be consistent with the Comprehensive Regional Salmon Plan approved under AS 16.10.375. During the term of the contract, the department may order changes in the operation of the hatchery that are necessary to ensure consistency with the production goals of the Comprehensive Regional Salmon Plan. The contract must specify the species to be raised and the production goals for each species, and these specifications must comply with the Comprehensive Regional Salmon Plan. The department may terminate a contract if the contractor fails to operate the hatchery in accordance with the requirements established by and under this subsection. (§ 1 ch 14 SLA 1988)

Legislative history reports. — For 1988 (CCS SB 410), see 1988 Senate Journal letter of intent on ch. 14, SLA 2422.

Article 9. Fisheries Enhancement Loan Program.

Section	Section
664. Disposal of property acquired by default or foreclosure	600 — 620. [Repealed]

Sec. 16.10.555. Disposal of property acquired by default or foreclosure. The Department of Commerce and Economic Development shall dispose of property acquired through default or foreclosure of a loan made under AS 16.10.500 — 16.10.560. Disposal shall be made in a manner that serves the best interests of the state, and may

REP. ULMER'S PROPOSAL

Alaska State Legislature

LEGISLATIVE COUNCIL



REPRESENTATIVE FRAN ULMER

MEMORANDUM

TO: Senator Dick Blason, President DATE: April 26, 1991
Representative Ben Grussendorf, Speaker

FROM: Representative Fran Ulmer

SUBJ: Interim Work

I would appreciate the opportunity to meet with you to discuss possible interim work on Alaska's hatchery programs and policies. As has been mentioned by many persons, Alaska hatcheries are at a crossroad.

The administration has proposed transferring FRED facilities to regional aquaculture associations. Some hatchery managers say that these hatcheries must be expanded to be able to produce more fish in order for them to be economical. Some fishermen have asked if we need more pink salmon or where we need them. Others have expressed concerns about the biological consequences of our hatcheries and questioned the status of efforts to assure genetic purity of natural stocks. Most would agree that Alaska's grand experiment in enhancement has been very successful, but I think it's time for an unbiased, thorough analysis of both the economics and the biology of Alaska's hatcheries.

I believe the University should be considered as one available, credible, resident entity which could do this analysis with access to much of the background research necessary to do the study.

I have had brief conversations with persons from the University of Alaska about such an analysis: Dr. Ole Mathisen about biological analysis and Lee Gorsuch about economic analysis.

Attached for your information is a rough draft of what ISER could do. I have asked for something in writing from Dr. Mathisen, the UAF/UAS Division of Fisheries.

District 4B — Juneau

P.O. Box V • Juneau, Alaska 99811-3100 • (907) 465-4947



Recycled Paper

April 26, 1991

Page Two

It might also be appropriate to create a joint interim committee on hatcheries to evaluate the analysis, take public comment, and develop a comprehensive policy statement on hatcheries.

The legislature needs this kind of analysis to put policy and budget decisions in a balanced and well informed context. Efforts by the Senate Special Fisheries Committee, the standing Resources Committees, and/or any new special or joint committees on this subject would all benefit from this effort.

FU/bvh

cc: Senator Lloyd Jones, Senate Resources Chair
Representative Cliff Davidson, House Resources Chair
Senator Lyman Hoffman, Senate Finance Subcommittee on ADFG Chair



UNIVERSITY OF ALASKA ANCHORAGE



1211 Providence Drive
Anchorage, Alaska 99508

SCHOOL OF PUBLIC AFFAIRS

INSTITUTE OF SOCIAL AND
ECONOMIC RESEARCH
(907) 786-7710 FAX (907) 786-7739

MEMORANDUM

April 25, 1991

TO: Representative Fran Ulmer
FR: Lee Gorsuch
RE: A Study of Hatchery Production and the Market for Salmon

Attached is a one page description of the study we briefly discussed. If I misconstrued the type of study you envisioned, feel free to call me and I can quickly adjust the study design and description. The cost of the study is \$75,000 assuming it comes directly to ISER as an appropriation. However, if the study is a pass through from another agency, please add an additional 40 percent to cover our institutional overhead which we are required to charge. The study described would be useful to both managers and legislators in designing a salmon management policy which better accounts for the link between wild and hatchery production and the market.

I expect to be in Juneau next Monday if you would like to discuss the study further.

HATCHERY PRODUCTION AND THE MARKET FOR ALASKA SALMON

The salmon hatchery program in Alaska is the largest enhancement effort of its kind in North America. In 1989 hatcheries accounted for 33% of pink salmon harvests and 23% of total statewide salmon harvests (Knapp and Smith, 1991). Over the last several years hatchery production has increased. At the same time, many of the formerly state-run hatcheries have been turned over to local private non-profit (PNP) aquaculture associations. Some PNPs recover part of the costs of construction and operation through the sale of returning stock captured in the vicinity of the hatchery. Other production facilities release sockeye, chinook and coho salmon which result in enhanced total run strength.

Implicit in this "success story" is the notion that increased production benefits not only the hatchery and its owner (the state or the aquaculture association) but also the commercial fishermen who harvest the hatchery fish and the fishermen who harvest wild (non-hatchery) fish. However, a simple examination of the market for salmon, especially the price paid by processors in a particular region's fishery, would indicate some response to harvest expectations and run strength. The strength of this price response will determine whether harvesters experience an increase or decrease in total revenue when prices decline due to increased supply.

Likewise, the fact that hatchery production must affect wild returns of the same species, at least at some level of production, has been ignored.

Last, the cost effects of hatchery production have not been completely explored. For example, how does hatchery production affect the costs of harvesting (both wild and hatchery fish) or what other opportunities are foregone due to the introduction of a hatchery?

Currently, wild salmon are managed using biological criteria. That is, harvest limits are set pre-season according to forecasts of run strength with actual catch determined by escapement goals. Also, the focus of hatchery producers has been to increase production both within the individual hatchery and through expansion in the number of hatcheries.

The proposed research would examine a more holistic management approach for salmon by linking wild and hatchery production to the market for salmon. Specifically, we will use available information on the quantitative relationship between the quantity harvested and price, and the impact of increased international salmon aquaculture production on the market for wild Alaskan salmon, to describe the market interaction of hatchery and wild fish, and the price effects of inventory and carry-over resulting from excess production.

At the same time the research would explore the total costs of hatchery production as described above. Together the two pieces of research will provide a better accounting of the costs and benefits of hatchery operations.

The results of this study will be useful to managers and legislators in designing a salmon management policy which better accounts for the link between wild and hatchery production and the market. Such a strategy should improve the economic returns to the fishery.

Budget: \$75,000 to the Institute of Social and Economic Research, University of Alaska Anchorage

MISCELLANEOUS STUDIES

A Comparison of Demand Models for Alaska Salmon

prepared by

Dr. John R. Boyce
Department of Economics
University of Alaska Fairbanks
(907) 474-5199

August, 1990

Under contract with

Mr. Jeff Hartman
Fisheries Research and Enhancement Division
Alaska Department of Fish and Game
(907) 465-4160

With funding assistance from:

Bruce Suzumoto: President
Prince William Sound Aquaculture Association
RSA No. 101142

NOTE: ATTACHED ARE
FIRST FEW PAGES OF THIS
STUDY. FULL REPORT IS
AVAILABLE IN SEN-ELIASON
OFFICE

Acknowledgements: This work was funded by the Prince William Sound Aquaculture Association. I would like to thank the PWSAA for this funding. Thanks also to Jeff Hartman for his tact and patience, and to Ben Muse for having provided data and helpful comments. Also, special thanks to Bob Logan, with whom I have discussed this project on many occasions and who always was able to see the forest for the trees. Thanks also to Quinn Wenninger for help in collection of the data, and to Hongru Zhang who did much of the original estimation of the 2SLS model.

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A Comparison of Demand Models for Alaskan Salmon

1. Introduction

Upon the implementation of the limited entry program in Alaska's commercial salmon fisheries in the 1970's the State of Alaska became heavily involved in aquacultural fisheries enhancement programs. From a purely biological perspective, the programs have enjoyed tremendous success as measured by increased landings for each of the five species of salmon. However, economic theory suggests that the market clearing price will decrease when larger quantities are supplied. Thus whether or not fishermen have benefited from the increased landings depends upon whether or not the reduction in prices has been larger than the increase in quantity.¹

A market clearing price is determined by conditions on the demand side and on the supply side of a market. On the demand side, higher prices generally imply that less will be demanded. On the supply side, higher prices generally imply that more will be supplied. However, for salmon at the ex-vessel level, the supply in the market is determined by Alaska Department of Fish and Game (ADF&G) biologists who control the escapement levels. Due to this regulation of the market, the price responsiveness of supply at the ex-vessel level is negligible. This means that an important parameter is the price responsiveness at the ex-vessel demand level.

The relationship between price and the quantity demanded can be summarized by the "elasticity of demand" which is defined as the percentage change in quantity demanded due to a one percent change in the price. The inverse of the elasticity of demand is called the "price flexibility"; it measures the

¹Another measure (ignored in this study) which also determines whether the fishermen benefit from enhancement programs is the additional costs incurred to catch the larger quantity of fish. Additionally, the price and cost measures only examine the benefits to the fishermen. Whether or not the State (fishermen, processors, taxpayers, etc.) benefits also depends upon the cost of the enhancement programs.

percentage change in price due to a one percent change in the quantity. Which measure is used depends upon whether the causal relationship is that quantity depends upon price, in which case the elasticity is the directly observable measure, or whether price depends upon quantity, in which case the price flexibility is the directly observable measure. For salmon, the quantity is determined by ADF&G escapement goals, so the appropriate measure is the price flexibility. If the price flexibility is less than one (or elasticity is greater than one) in absolute value, then an increase in the quantity will increase total revenues. Conversely, if the price flexibility is greater than one (or elasticity of demand is less than one), then an increase in the quantity landed will cause total revenues to decrease.

Due to the importance of the price flexibility parameter, several models have been proposed to measure the price flexibility of demand for Alaskan salmon. This study compares three sets of ex-vessel demand models for Alaskan salmon. The first two models are single equation models, focusing on the demand equation using the notion that the supply is determined by conditions not affected by the market. One of these models was developed in 1984 by Ben Muse of the Commercial Fisheries Entry Commission (CFEC).² The other single equation model was developed in 1989 by Nick Ronan of the Institute of Economic and Social Research (ISER) at the University of Alaska, Anchorage under a contract with the ADF&G's Fisheries Research and Enhancement Division (FRED). An alternative model has been proposed in a Master's Thesis by Hongru Zhang (1990) at the University of Alaska Fairbanks (UAF). This model follows DeVortz (1982) in assuming that even though the landings are exogenously determined, the allocation of raw salmon between fresh/frozen and canned salmon is controlled by processors who make this decision based on relative prices and technological factors. Thus instead of simply modelling the ex-vessel demand in isolation from higher levels of the market, Zhang's model estimates ex-vessel demand simultaneously with fresh/frozen and canned supply and demand equations. These equations

²Muse actually uses a two equation model for pink and chum salmon. The first equation regresses the January 1 inventory holdings of pink salmon as a function of lagged US landings and the prime rate of interest. The price of the species is then regressed against the estimated pink inventory holdings, exchange rates with Japan, and the quantity of pink and chum salmon. However, his implicit assumption is that the errors of the two equations are unrelated. This, plus the recursive structure of the equations, implies that an equivalent estimation procedure would be to estimate price as a function of all of the exogenous variables. It is for this reason that we refer to the CFEC model as a single equation model.

are estimated using Two-Stage-Least-Squares (2SLS). For convenience of reference, the three models are referred to as the CFEC model, the ISER model, and the 2SLS model, respectively, in the text.

The purpose of this paper is to compare these three models for their ability to predict ex-vessel prices for Alaskan salmon. In addition, we also perform out of sample predictions based on the linear trends of the explanatory variables.

We find that the 2SLS model appears to have superior predictive capability within the sample. This conclusion is based primarily on statistical and graphical analysis of the estimated (or predicted) ex-vessel prices for each model. The 2SLS estimates indicate that the price flexibilities are statistically zero for all species except for pink salmon (for which the prices responsiveness is extremely small), indicating that at the ex-vessel level, the enhancement program serves to increase fishermen's revenues. The processing sector also benefits from enhancement of each species (all processing flexibilities are less than one in absolute value). However, the processing sector price flexibilities are not as low as the harvesting sector price flexibilities except for king salmon. Red salmon have the highest price flexibility (-0.7462 for fresh/frozen red salmon using average price and quantity data from 1978-1988), indicating that the processing sector benefits are the least for red salmon.

The conclusions just stated are based on *partial equilibrium* price response estimates. This means that the ex-vessel price flexibility estimates are based on changes in quantities estimated by assuming that the wholesale prices do not change. In a *general equilibrium* model, changes in the wholesale prices are taken into account. We estimate the general equilibrium price flexibilities using comparative statics techniques for systems of equations. In general, one would expect that these estimates would show a larger price flexibility at the ex-vessel level because increases in landings tend to depress wholesale prices, which, in turn, depress ex-vessel prices. We find that this conclusion is generally supported by the data, but that the conclusion that enhancement programs increase revenues at the ex-vessel level remains unchanged.

All models are estimated using annual state-wide ex-vessel price data. This price includes post season adjustments. We do not differentiate the data by region or by gear type. However, a separate demand function is estimated for each species: king (*Oncorhynchus tshawytscha*), red (*O. kisutch*), silver (*O. nerka*), pink (*O. gorbuscha*), and chum (*O. keta*). The data used in the analysis is for the period 1964-1988. This sample is chosen because it covers the entire period for which canned inventory data is available (data for 1989 was not available for the analysis). A detailed description of the data used in the analysis is contained in Appendix A.

There are several sources for the price and quantity data for Alaskan caught salmon. The CFEC data begins in 1975 for ex-vessel data, and in 1984 for wholesale data on canned and fresh/frozen prices and quantities. The ADF&G data covers the period 1964-1985. Thus the two data sets must be combined to obtain a complete data set. The CFEC data differs slightly from the ADF&G data in that the CFEC data excludes data from test fisheries, fishing derbies, and illegally caught fish. The ADF&G data includes these categories. The difference is generally quite small (less than 1% of the quantity from all sources). Each model is estimated using CFEC data from 1975-1988 for ex-vessel level data and using CFEC data from 1984-1988 for wholesale data.

The 2SLS model does not exactly replicate Zhang's (1990) model.³ His data set differed slightly in the years covered. He had data from 1962-1985 plus data for 1987. We have data from 1964-1988, inclusive. Zhang estimated his model using data transformed by taking the natural logarithm of all variables. We estimate the model using data in natural units. The reason for this difference is that the double-logged functional form implies a constant elasticity (flexibility). The untransformed model allows the elasticity (flexibility) to change as quantities increase. This enables us to ask whether or not there exists a quantity such that further enhancement will depress revenues to the harvesting or processing sector.

³This is also true for the CFEC and ISER models. The differences are outlined in more detail in the text.

DIVISION OF LEGAL SERVICES

LEGISLATIVE AFFAIRS AGENCY STATE OF ALASKA

*P.O. Box Y, Juneau, Alaska 99811
(907) 465-3867 or 465-2450
FAX (907) 465-2029*

*Deliveries to: 240 Main Street
Court Plaza, Room 500
Mail Stop 3101*

MEMORANDUM

September 19, 1991

SUBJECT: Summaries and reviews of laws relating to fisheries, hatcheries,
and marketing (7LS1510)

TO: Senator Lyman Hoffman
ATTN: Molly McCammon

FROM: George Utermohle *GU*
Legislative Counsel

Enclosed are the summaries and reviews of laws relating to salmon fisheries,
hatcheries, and marketing that you requested.

If I may be of further assistance, please advise.

GU:gc
91-328.glc

Enclosure

CONSTITUTION OF THE STATE OF ALASKA

ARTICLE VIII: NATURAL RESOURCES

Article VIII of the Alaska Constitution sets out the policies that govern the utilization of natural resources of the state. It is the policy of the state to develop its natural resources and to make them available for maximum use consistent with the public interest. The legislature is responsible for the utilization, development, and conservation of state-owned natural resources. Fish, wildlife, and water in their natural state shall be available to the people of the state for common use. The renewable natural resources belonging to the state, including fish, wildlife, forests, and grasslands, shall be managed according to the principles of sustained yield. The legislature may provide for facilities, improvements, and services to assure greater utilization, development, reclamation, and settlement of lands and to assure fuller utilization and development of fisheries, wildlife, and water.

Water of the state, both surface and subsurface water, are reserved for common use of the people subject to the right to appropriate water for a beneficial purpose. Except for an appropriation of water for public water supply, an appropriation of water is subject to a general reservation of water for fish and wildlife.

Exclusive rights of fishery are prohibited, except as may be necessary to regulate entry into the fisheries to promote resource conservation and to alleviate economic distress among fishermen and to promote development of aquaculture.

All laws and regulations governing the use or disposal of natural resources shall apply equally to all persons who are similarly situated. The state has a substantial obligation to treat people fairly and equally when regulating the use of its natural resources.

ALASKA FISH AND GAME CODE (AS 16.05)

The Department of Fish and Game is responsible for managing the fish and game resources belonging to the state. AS 44.39.020. The department is under the direction of the commissioner of fish and game. AS 16.05.020. Among the powers of the commissioner are the powers to design and construct fish hatcheries and similar facilities, an to acquire, sell, or exchange fish for stocking and propagation, and to provide brood stock to private nonprofit hatcheries. AS 16.05.050.

Within the department is the Division of Fisheries Rehabilitation, Enhancement and Development. AS 16.05.090. This division is responsible for planning for the orderly present and long-range rehabilitation, enhancement, and development of the fisheries in the state, encouraging private investment in the technological development and economic utilization of fisheries resources, and insuring perpetual and increasing production and use of the food resources of Alaska waters and the continental shelf. AS 16.05.092.

The Board of Fisheries is the regulatory body responsible for the conservation and development of fishery resources of the state. AS 16.05.221(a). The board may establish by regulation open and closed seasons and areas for taking fish; quotas, harvest levels, and size and sex restrictions on the taking of fish; the allowable means and methods for catching fish; the rules for capture, transportation, and release of native and exotic fish or their eggs; and the rules for propagation and stocking of fish in the state. The board may also allocate the harvest of fish among subsistence, sport, personal use, and commercial fisheries. AS 16.05.251(a). The board does not have authority to adopt regulations regarding the issuance of permits for aquatic farms or regarding the operation or construction of aquatic farms. AS 16.05.251(f).

PRIVATE NONPROFIT SALMON HATCHERIES

In order to promote the sound development of state and private salmon hatcheries in the state, the commissioner of fish and game may approve comprehensive regional salmon hatchery plans. The plans are to be developed by teams consisting of staff of the Department of Fish and Game and representatives of regional hatchery associations. AS 16.10.375. The commissioner of fish and game shall encourage the formation of regional hatchery associations for the purpose of enhancing the hatchery production of salmon in the state. AS 16.10.380. The commissioner of fish and game may issue salmon hatchery permits to private nonprofit corporations. AS 16.10.400. A permit may not be issued for a hatchery on an anadromous fish stream unless the commissioner determines that the stream is suitable for enhancement. Before a permit is issued for a salmon hatchery, the department must hold a public hearing on the permit and must consider objections and recommendations made during the hearing. AS 16.10.410. Hatchery permits contain several provisions regulating the operation of the hatchery, including restrictions on where returning fish may be recaptured by the hatchery and restrictions on the siting of hatcheries in regard to natural salmon stocks and traditional salmon fisheries. AS 16.10.420. The department is obligated to assist and advise, consistent with available time and resources, hatchery operators and applicants for hatchery permits in the planning, construction, and operation of salmon hatcheries. AS 16.10.443. In obtaining brood stock for hatcheries, priority should be given to stocks native to the area in which the hatchery is located. AS 16.10.445.

A hatchery permit may be suspended or revoked for noncompliance with terms of the permit. A hatchery permit may also be altered or revoked if the operation of the hatchery is not in the public interest and cannot be mitigated. AS 16.05.430. The Board of Fisheries may adopt regulations regarding the harvest of fish by hatcheries and the locations where the harvest is to occur, but the board may not adopt regulations regarding the issuance or denial of hatchery permits. AS 16.10.440.

Fish released into the natural water of the state by a private nonprofit hatchery are available to the people for common use and are subject to regulation under applicable law in the same way as fish occurring in their natural state until they return to the specific location designated by the department for harvest by the hatchery operator. AS 16.10.440(a). Fish sold by hatcheries for human consumption must be of a quality comparable to fish sold by commercial fisheries in the area and must also be sold at a price commensurate with the current market price. AS 16.10.450.

The department may enter into agreements with nonprofit salmon hatchery operators and other persons to operate state hatcheries if the state is no longer able to operate a hatcheries. The regional salmon hatchery association in which the state hatchery

is located shall have a preference to operate the state hatchery, if it is qualified to do so. AS 16.05.480.

Regulations adopted by the Board of Fisheries relating specifically to private nonprofit salmon hatcheries are found at 5 AAC 40.

The board has adopted general policies regarding the harvest of salmon returning to the hatchery. 5 AAC 40.005. All salmon present in the water of the state, whether wild or hatchery stocks, may only be harvested in accordance with regulations of the board. Special harvest areas may be designated in areas where hatchery stocks are segregated from wild stocks and can be harvested without significantly affecting wild stocks. Hatchery permit holders may harvest returning salmon only within the designated special harvest area. Special harvest areas may be open to subsistence, sport, personal use, and commercial fisheries. Hatchery operators shall take all reasonable steps to ensure that salmon harvested in the special harvest area are surplus salmon produced at that facility.

The board has adopted several hatchery harvest management plans in Prince William Sound that require the department to manage salmon fisheries in areas near hatcheries in order achieve hatchery escapement goals. 5 AAC 24.365 - 368. For Southeastern Alaska, the board has adopted several management plans providing for the allocation of hatchery stocks in special harvest areas among different gear groups. 5 AAC 33.370 - 374.

FISHERIES ENHANCEMENT LOAN PROGRAM

In order to support the operation of private nonprofit salmon hatcheries established under AS 16.10.400 - 16.10.470, the Department of Commerce and Economic Development is authorized to make grants and loans for the planning, construction, and operation of hatcheries and other salmon enhancement projects. AS 16.10.500. The fisheries enhancement revolving loan fund has been established to support the operation of private nonprofit salmon hatcheries. AS 16.10.505 - 507.

The Department of Commerce and Economic Development may make loans to regional salmon enhancement associations and local salmon hatcheries for preconstruction activities and for planning and implementation of fisheries enhancement and rehabilitation activities. AS 16.10.510. A single loan to a regional association and an approved local association for a hatchery or other enhancement or rehabilitation project may not exceed \$10 million. A loan for other hatchery projects may not exceed \$1 million. AS 16.10.520. The department may also make grants to nonprofit regional salmon enhancement associations for organizational and planning purposes.

Regulations of the Department of Commerce and Economic Development relating to fisheries enhancement loans and grants are found at 3 AAC 81.

AQUATIC FARMING

The commercial farming of shellfish and aquatic plants is permitted in the state. A person may obtain a permit from the commissioner of fish and game to operate an aquatic farm or a hatchery to supply stock to an aquatic farm. AS 16.40.100 - 110. Stock for an aquatic farm cannot be obtained from wild stocks in the state without first obtaining a permit from the commissioner. A permit to acquire stock for an aquatic farm must be either denied or restricted if the taking of stock from the wild will interfere with established uses of the resource by commercial, sport, personal use, or subsistence users or will impair sustained yield of the resource. Aquatic plants and shellfish acquired under a stock acquisition permit become the property of the permit holder and are no longer a public or common resource. AS 16.40.120. A person may not import an aquatic plant or shellfish into the state for use at an aquatic farm unless the importation is authorized by the Board of Fisheries. AS 16.40.130.

Aquatic farming of finfish is prohibited. AS 16.40.210.

Regulations of the commissioner of fish and game governing aquatic farming are found in 5 AAC 41.200 - 400.

SPECIAL HARVEST AREA ENTRY PERMITS

A person may not engage in commercial fishing without first obtaining an entry permit or an interim-use permit from the Alaska Commercial Fisheries Entry Commission. AS 16.43.140. Likewise, a private, nonprofit hatchery may not take salmon for sale unless the hatchery has obtained a special harvest area entry permit from the commission. AS 16.43.400 - 440. Special harvest area entry permits are issued for only one year and are valid only for the special harvest area established by the Department of Fish and Game. Fish caught under the authority of a special harvest area entry permit are property of the permit holder. Salmon caught under a special harvest area entry permit may be sold, provided that the proceeds of the sale are used for enhancement and rehabilitation projects and to support the operations of the qualified regional salmon enhancement association.

Regulations of the Alaska Commercial Fisheries Entry Commission relating to special harvest area entry permits are found at 20 AAC 05.571 - 572.

ALASKA SEAFOOD MARKETING INSTITUTE

The Alaska Seafood Marketing Institute was created to promote the development of markets for all species of fish harvested in the state. The institute is a public corporation of the state and is part of the Department of Commerce and Economic Development. AS 16.51.010. The institute is governed by a board of directors consisting of seafood processors, commercial fishermen, and a lay person. AS 16.51.020.

The institute shall prepare market research and product development plans for the promotion of any species of seafood and its by-products that is harvested in the state and processed for sale. The institute shall also conduct education, research, advertising, and sales promotions for all Alaska seafood products. The institute must stress the quality of Alaska seafood products and develop market-oriented quality specifications to promote the high quality image of Alaska seafoods. AS 16.51.100. The institute may also cooperate with other public and private entities involved in consumer education, sales promotion, quality control, advertising, and research in the production, processing, and distribution of seafood. AS 16.51.090. The institute may not promote seafood products by geographic origin in a region of the state or by brand name. AS 16.51.110.

The activities of the institute are indirectly supported by an assessment of 0.1 - 0.4 per cent on the value of fish purchased by processors in the state. The assessment and the amount of the assessment is approved by the vote of the processors who are subject to the assessment. The funds collected through the assessment are available for appropriation by the legislature to support the activities of the institute. AS 16.51.120 - 170.

FISHERY INDUSTRIAL TECHNOLOGY CENTER

The Fishery Industrial Technology Center is located in Kodiak as part of the University of Alaska. The goal of the center is to create employment opportunities in the state's fishing industry by training fishermen in the most efficient and appropriate technologies for harvesting, processing, and conserving fishery resources and by providing information and technical assistance on adapting new technologies to the fisheries of the state. The center also provides research and development activities to adapt existing technology and create new technology to enhance the economic viability and effectiveness of the fishing industry in the state. AS 16.52.020. Program and policy guidance is provided to the center by the Fishery Industrial Technology Policy Council which consists of seven members appointed by the president of the University of Alaska. AS 16.52.030. The center shall cooperate with other agencies involved in the management, development, and promotion of the fishing industry in the state. AS 16.52.060.

SALMON ENHANCEMENT TAX

A salmon enhancement tax may be assessed on the sale of raw salmon by commercial fishermen in certain regions of the state if the commissioner of fish and game has designated the region as a salmon enhancement planning region and designated a qualified regional salmon enhancement association for the region and the amount of the assessment is approved by a majority of the salmon entry permit and interim-use permit holders in the region. The amount of the assessment may be set at one, two, or three per cent of the value of salmon sold by commercial fishermen. AS 43.76.010 - 012. The elections to approve or terminate a salmon enhancement tax are conducted under the supervision of the Department of Commerce and Economic Development. AS 43.76.015 - 020.

The proceeds of the salmon enhancement tax may be used by the legislature to provide financing to qualified regional salmon enhancement associations. AS 43.76.025. Those qualified salmon enhancement associations that apply for financial assistance must account for the amount of financial assistance received and must provide reports to the Department of Commerce and Economic Development. AS 43.76.030.

Salmon harvested under a special harvest area entry permit are not subject to the salmon enhancement tax. AS 43.76.035. Regulations of the Department of Revenue relating to the imposition and collection of the salmon enhancement tax are found at 15 AAC 76.

FISH AND SEAFOOD PROMOTION ACT OF 1986
(16 U.S.C. 4001 - 4017)

In order to strengthen the competitive position of the United States commercial fishing industry, encourage utilization of all species of fish available for harvest in the United States by enhancement of markets, promotion, and public relations, and educate and inform consumers on the use and nutritional value of fish, the Congress enacted the Fish and Seafood Promotion Act of 1986. The Act established the National Fish and Seafood Promotional Council.

The national council consists of 15 voting members appointed by the Secretary of Commerce. Three members of the national council shall be appointed from each of the following regions of the nation: the State of Alaska, Northeast region, Southeast region, and Pacific region. The members from of each region must include a fisherman or fish farmer, a fish processor, and a person who sells processed fish through wholesale, retail, or restaurant markets. The remaining members of the national council are at-large members with expertise in fresh-water and inland fisheries, experience in disseminating information on the nutritional value of seafoods, or familiarity with fisheries as a member of a labor union. Members of the national council serve four year terms. 16 U.S.C. 4004.

The national council shall prepare for the approval of the Secretary of Commerce an annual marketing and promotion plan to encourage the consumption of, and the expansion of markets for, fish and seafood products. The national council shall also prepare a budget for the work of the council. 16 U.S.C. 4005. Marketing and promotion activities of the national council may not refer to private brand names or trade names, use deceptive practices in regard to fish or fish products with respect to competing food products, or promote the consumption of a group of similar fish species (such as members of the same genus).

The Fisheries Promotional Fund is established in the United States Treasury as a source of money to support the national council and its marketing and promotion plan. Money in the fund is derived from contributions to the fund under the Saltonstall-Kennedy Act, private voluntary contributions to the fund, and interest on investments of the fund. 16 U.S.C. 4008.

Seafood marketing councils may be established to promote the consumption of specific fish species and fish products. In order to establish a seafood marketing council, the charter for the council must be approved by the Secretary of Commerce and by a majority of the qualified participants in each sector of the fishing industry that is involved with the fish species or seafood product. If the council is approved, the Secretary of Commerce shall appoint the members of the council from among the participants in each sector of the fishing industry that is involved with the fish species or seafood product. 16 U.S.C. 4009. A seafood marketing council or the Secretary

of Commerce, at the request of a seafood marketing council, may establish quality standards for the fish or seafood product promoted by the council. The quality standards may be adopted by the industry, if the standards are approved by the seafood marketing council and a majority of the participants in the sector affected by the standards. Seafood products that satisfy the quality standards may bear a seal or label indicating that fact. 16 U.S.C. 4010.

To support the activities of a seafood marketing council, the council must impose and collect an assessment necessary to pay the expenses of the council. The assessment shall be paid by persons who purchase the fish or seafood product from fishermen or who own a fish processing vessel. The assessment may also be levied on persons who import the fish or seafood product. The seafood marketing council may also accept voluntary payments or in-kind contributions to support the activities of the council. 16 U.S.C. 4012. Persons affected by an assessment may petition the Secretary of Commerce to review the assessment and the plan under which the assessment is made to determine whether the assessment is lawful. 16 U.S.C. 4013. Persons who pay the assessment may obtain refunds of the assessment in accordance with provisions adopted by the seafood marketing council.

A seafood marketing council may be terminated upon the petition of three participants in any one sector involved in the seafood marketing council and the majority vote of the participants in the sector. 16 U.S.C. 4015.

The authority to enforce provisions of this Act is given to the federal district courts and the Secretary of Commerce. 16 U.S.C. 4016.

ANTI-TRUST LAWS

The purpose of federal and state anti-trust laws is to preserve free competitive economic enterprise and to protect the public from the adverse effects of monopolies and unreasonable restraints of trade or commerce. Under federal law, combinations in restraint of interstate trade and commerce and combinations and conspiracies to monopolize or to attempt to monopolize interstate trade and commerce are illegal. 15 U.S.C. 1 - 2. Restraint of trade is the interruption of or interference with the free movement of goods in commerce or the restriction of competition, as by monopoly or price-fixing. Monopolize means to control and dominate trade and commerce to such an extent as to exclude present or future competitors. Monopolies are restraints of trade but not all restraints of trade are monopolies. An unlawful restraint of trade or monopoly does not have to affect a vast area or occur over a long period of time to violate the federal law. It is not the amount of trade or commerce or the size of the area affected by the restraint or monopoly that invokes the anti-trust laws; it is nature and extent of the restraint or monopoly that is critical. Trade and commerce are the exchange of goods, commodities, or services by barter, buying, or selling. A combination is the agreement of two or more persons to achieve a specific goal. A conspiracy is a partnership to achieve a criminal purpose.

Monopolies created and controlled by states are exempt from federal anti-trust laws.

Violations of the federal anti-trust laws are felonies. A natural person is subject to a fine of not more than \$350,000 or imprisonment for not more than three years, or both for a violation of the law. A corporation is subject to a fine of not more than \$10 million for violating the law. In addition to criminal penalties, a person or corporation who violates the law must pay treble damages to persons injured by the restraint of trade or monopoly.

Federal law specifically authorizes fishermen to form associations to collectively catch, produce, process, and market fishery products. 15 U.S.C. 521. This provision provides a limited exemption from federal anti-trust laws. However the operation of fishermen's associations cannot restrain trade in fisheries products or monopolize trade in fisheries products to such an extent that the price of a fishery product is unduly enhanced. It is the responsibility of the Secretary of Commerce to enforce this provision. 15 U.S.C. 522.

The anti-trust provisions of state law are derived from federal law and are substantially similar to federal law. AS 45.50.562 - 596. The state law specifically authorizes the formation of fishermen's associations for the purpose of catching, collecting, and preparing fishery products for market; however, state law does not otherwise permit fishermen or fishermen's associations to engage in unlawful restraints of trade or monopolies. AS 45.50.572(c).

Violation of the state anti-trust law is a misdemeanor, A natural person who violates the state law is punishable by a fine of not more than \$20,000 or imprisonment for not more than one year or both. A corporate violator is subject to a fine of not more than \$50,000. AS 45.50.578.

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CONSERVATION

FISH AND SEAFOOD PROMOTION

16 USCS § 4001

at the end of each twenty-four-month period the Administrator shall, report to the Congress and provide an evaluation of the effectiveness of the

304, 104 Stat. 4783.)

ANCILLARY LAWS AND DIRECTIVES

is Title III of Act Nov. 29, 1990, P. L. 101-646, §§ 3951 et seq. and amends 16 USCS § 777c.

Wetlands grants

with the funds made available in accordance with the matching grants to any coastal State to carry out the funds made available for that purpose.

requirements of this section, the Director may grant grants to any coastal State which submits a proposal to carry out a coastal wetlands conservation project. In the restoration plan prepared under this title;

lands Priority Conservation Plan developed under the Resources Act (16 U.S.C. 3921); and

dedicated funding for programs to acquire wetland spaces. In addition, priority consideration shall be given to projects in maritime forests on coastal barrier

grant or otherwise provide matching moneys to a coastal wetlands conservation project if the grant conditions that will ensure that any real property interest, managed, or restored with such moneys will be on of such lands and waters and the fish and

to coastal States of matching moneys by the coastal wetlands conservation projects shall be 50 percent of the total costs of such projects: except that for payment of not to exceed 75 percent of the cost if the State has established a trust fund, from which the State is acquiring coastal wetlands, other natural area or

moneys required of a coastal State to carry out a project shall be derived from a non-Federal source.

cash outlays and payments, in-kind contributions, and Federal interests for activities under this section shall be the cost of those activities.

from time to time make matching payments to carry out projects as such projects progress, but such payments shall not be more than the Federal proportion with subsection (d) of this section.

agrees to make matching payments on an initial project and to agree to make payments on the project from subsequent moneys if and when the United States under such an agreement is to provide funds for the purpose of this section.

shall, with the funds made available in accordance with the title, direct the U.S. Fish and Wildlife Service's digitize wetlands maps in the State of Texas and Louisiana, and trends of wetlands in that State.

5, 104 Stat. 4785.)

ANCILLARY LAWS AND DIRECTIVES

Title III of Act Nov. 29, 1990, P. L. 101-646, § 3951 et seq. and amends 16 USCS § 777c.

§ 3955. Distribution of appropriations

(a) Priority project and conservation planning expenditures. Of the total amount appropriated during a given fiscal year to carry out this title, 70 percent, not to exceed \$70,000,000 shall be available, and shall remain available until expended, for the purposes of making expenditures—

(1) not to exceed the aggregate amount of \$3,000,000 annually to assist the Task Force in the preparation of the list required under this title and the plan required under this title, including preparation of—

- (A) preliminary assessments;
- (B) general or site-specific inventories;
- (C) reconnaissance, engineering or other studies;
- (D) preliminary design work; and
- (E) such other studies as may be necessary to identify and evaluate the feasibility of coastal wetland restoration projects;

(2) to carry out coastal wetlands restoration projects in accordance with the priorities set forth on the list prepared under this title;

(3) to carry out wetlands restoration projects in accordance with the priorities set forth in the restoration plan prepared under this title;

(4) to make grants not to exceed \$2,500,000 annually or \$10,000,000 in total, to assist the agency designated by the State in development of the Coastal Wetlands Conservation Plan pursuant to this title.

(b) Coastal wetlands conservation grants. Of the total amount appropriated during a given fiscal year to carry out this title, 15 percent, not to exceed \$15,000,000 shall be available, and shall remain available to the Director, for purposes of making grants—

(1) to any coastal State, except States eligible to receive funding under section 306(a) [16 USCS § 3955(a)], to carry out coastal wetlands conservation projects in accordance with section 305 of this title [16 USCS § 3954]; and

(2) in the amount of \$2,500,000 in total for an assessment of the status, condition, and trends of wetlands in the State of Texas.

(c) North American wetlands conservation. Of the total amount appropriated during a given fiscal year to carry out this title, 15 percent, not to exceed \$15,000,000, shall be available to, and shall remain available until expended by, the Secretary of the Interior for allocation to carry out wetlands conservation projects in any coastal State under section 8 of the North American Wetlands Conservation Act (Public Law 101-233, 103 Stat. 1968, December 13, 1989).

(Nov. 29, 1990, P. L. 101-646, Title III, § 306, 104 Stat. 4786.)

HISTORY; ANCILLARY LAWS AND DIRECTIVES

References in text:

"This title", referred to in this section, is Title III of Act Nov. 29, 1990, P. L. 101-646, 104 Stat. 4778, which appears as 16 USCS §§ 3951 et seq. and amends 16 USCS § 777c.

§ 3956. General provisions

(a) Additional authority for the corps of engineers. The Secretary is authorized to carry out projects for the protection, restoration, or enhancement of aquatic and associated ecosystems, including projects for the protection, restoration, or creation of wetlands and coastal ecosystems. In carrying out such projects, the Secretary shall give such projects equal consideration with projects relating to irrigation, navigation, or flood control.

(b) Study. The Secretary is hereby authorized and directed to study the feasibility of modifying the operation of existing navigation and flood control projects to allow for an increase in the share of the Mississippi River flows and sediment sent down the Atchafalaya River for purposes of land building and wetlands nourishment.

(Nov. 29, 1990, P. L. 101-646, Title III, § 307, 104 Stat. 4787.)

HISTORY; ANCILLARY LAWS AND DIRECTIVES

References in text:

"This title", referred to in this section, is Title III of Act Nov. 29, 1990, P. L. 101-646, 104 Stat. 4778, which appears as 16 USCS §§ 3951 et seq. and amends 16 USCS § 777c.

CHAPTER 60. FISH AND SEAFOOD PROMOTION

Section

4001. Findings

4002. Purpose

- 4003. Definitions
- 4004. Establishment of the National Council
- 4005. Functions and duties of the National Council
- 4006. Duties of the Secretary with regard to the National Council
- 4007. Voluntary payments
- 4008. Establishment of Fisheries Promotional Fund
- 4009. Establishment of a council
- 4010. Functions and powers of councils
- 4011. Functions and powers of the Secretary
- 4012. Assessments
- 4013. Petitions
- 4014. Refunds
- 4015. Termination of a council
- 4016. Enforcement
- 4017. Investigations

CODE OF FEDERAL REGULATIONS

Add:
50 CFR Part 720.

§ 4001. Findings

The Congress finds that—

- (1) the commercial fishing industry of the United States significantly contributes to the national economy, and could make a greater contribution if fish resources within the United States Exclusive Economic Zone were more fully utilized;
 - (2) the commercial fisheries of the United States provide significant employment in coastal areas and in processing and distribution centers;
 - (3) fish contribute an important nutritional component to the American diet;
 - (4) increased consumption of seafood in the United States could significantly lower the risk of many cardiovascular diseases;
 - (5) Federally supported development programs for commercial fisheries are unable to meet present and future marketing needs;
 - (6) many fish species are underutilized by the United States fishing industry because of underdeveloped markets; and
 - (7) the United States fishing industry has the potential to expand greatly its contribution to interstate and foreign commerce, favorably affecting the balance of trade.
- (Nov. 14, 1986, P. L. 99-659, Title II, § 202, 100 Stat. 3717.)

HISTORY; ANCILLARY LAWS AND DIRECTIVES

Short titles:

Act Nov. 14, 1986, P. L. 99-659, Title II, § 201, 100 Stat. 3717, provides: "This title may be cited as the 'Fish and Seafood Promotion Act of 1986'." For full classification of such title, consult USCS Tables volumes.

Other provisions:

Report to Congress. Act Nov. 14, 1986, P. L. 99-659, Title II, § 219, 100 Stat. 3733, provides: "The Secretary shall, not later than March 1, 1989, submit to the Congress a report on the effectiveness of the implementation of this title in achieving the purposes of this title."

CODE OF FEDERAL REGULATIONS

Add:
50 CFR Part 720

§ 4002. Purpose

The purpose of this title is to—

- (1) strengthen the competitive position of the United States commercial fishing industry in the domestic and international marketplace;
- (2) encourage the development and utilization of all species of fish available for harvest by the United States fishing industry;
- (3) encourage the utilization of domestically-produced fish through enhancement of markets, promotion, and public relations;
- (4) help the United States fishing industry develop methods to improve quality and efficiency in the marketplace;
- (5) educate and inform consumers on the use of fish;

CONSERVATION

Council
the National Council

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REGULATIONS

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Stat. 3717.)

LAWS AND DIRECTIVES

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99-659, Title II, § 219; 100 Stat. 3733,
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REGULATIONS

United States commercial fishing industry in
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development methods to improve quality and
fish.

FISH AND SEAFOOD PROMOTION

16 USCS § 4003

- (6) develop better coordination of fisheries marketing and promotion activities with commercial fisheries research and development programs; and
 - (7) educate and inform the public about the nutritional value of fish in the diet.
- (Nov. 14, 1986, P. L. 99-659, Title II, § 203, 100 Stat. 3718.)

HISTORY; ANCILLARY LAWS AND DIRECTIVES

References in text:

"This title", referred to in this section, is title II of Act Nov. 14, 1986, P. L. 99-659, 100 Stat. 3717, which generally appears as 16 USCS §§ 4001 et seq. For full classification of such title, consult USCS Tables volumes.

§ 4003. Definitions

As used in this title, the term—

- (1) "consumer education" means actions undertaken to inform consumers on matters related to the consumption of fish and fish products;
 - (2) "council" means a seafood promotional council established under section 210 of this title [16 USCS § 4009];
 - (3) "fish" means finfish, mollusks, crustaceans, and all other forms of aquatic animal life used for human consumption; the term does not include marine mammals and seabirds;
 - (4) "Fund" means the Fisheries Promotional Fund established in section 209 of this title;
 - (5) "harvester" means any individual who is in the business of catching or growing fish for purposes of sale;
 - (6) "importer" means any person in the business of importing fish or fish products into the United States from another country for commercial purposes or who acts as an agent, broker, or consignee for any person or nation that produces, processes or markets fish or fish products outside of the United States for sale or other commercial purpose in the United States;
 - (7) "marketer" means any person who is in the business of selling fish or fish products in the wholesale, retail, or restaurant trade, but whose primary business function is not the processing or packaging of fish or fish products in preparation for sale;
 - (8) "marketing and promotion" means an activity aimed at encouraging the consumption of fish or fish products or expanding or maintaining commercial markets for fish or fish products;
 - (9) "member" means any person serving on the National Council or on any council;
 - (10) "National Council" means the National Fish and Seafood Promotional Council established in section 205 of this title [16 USCS § 4004];
 - (11) "person" means any individual, group of individuals, partnership, corporation, association, cooperative, or any private entity organized or existing under the laws of the United States or any State, commonwealth, territory or possession of the United States;
 - (12) "processor" means any person who is in the business of preparing or packaging fish or fish products (including fish of the processor's own harvesting) for sale;
 - (13) "receiver" means any person who owns fish processing vessels and any person in the business of acquiring fish directly from harvesters;
 - (14) "research" means any type of research designed to advance the image, desirability, usage, marketability, production or quality of fish and fish products;
 - (15) "sector" means—
 - (A) the sector consisting of harvesters;
 - (B) the sector consisting of importers;
 - (C) the sector consisting of marketers;
 - (D) the sector consisting of processors;
 - (E) the sector consisting of receivers; or
 - (F) the consumer sector consisting of persons professionally engaged in the dissemination of information pertaining to the nutritional benefits and preparation of fish and fish products;
 - (16) "Secretary" means the Secretary of Commerce, or the Secretary's designee; and
 - (17) "United States" means the several States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, the Northern Mariana Islands and any other territory, possession, or commonwealth of the United States.
- (Nov. 14, 1986, P. L. 99-659, Title II, § 204, 100 Stat. 3718.)

HISTORY; ANCILLARY LAWS AND DIRECTIVES

References in text:

"This title", referred to in this section, is title II of Act Nov. 14, 1986, P. L. 99-659, 100

Stat. 3717, which generally appears as 16 USCS §§ 4001 et seq. For full classification of such title, consult USCS Tables volumes.

"Section 209 of this title", referred to in this section, is § 209 of title II of Act Nov. 14, 1986, P. L. 99-659, 100 Stat. 3722, which added 16 USCS § 4008 and amended 15 USCS § 713c-3.

§ 4004. Establishment of the National Council

- (a) **Establishment.** There is established the National Fish and Seafood Promotional Council.
- (b) **Composition of the National Council.** (1) The National Council shall be composed of the Secretary, who shall be a nonvoting member, and fifteen voting members appointed by the Secretary.
- (2) Nominations for appointees shall be submitted in a manner prescribed by the Secretary.
- (c) **Regional representation.** The National Council shall be comprised of regional representation from the Northeast, Southeast, Pacific, and Alaska regions. The Northeast region shall consist of the States of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Pennsylvania, Maryland and Virginia. The Southeast region shall consist of the States of North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana and Texas, the Commonwealth of Puerto Rico, and the territory of the Virgin Islands. The Pacific region shall consist of the States of Idaho, Washington, Oregon, California, and Hawaii, the territories of Guam and American Samoa, and the Commonwealth of the Northern Mariana Islands. The Alaska region shall consist of the State of Alaska.
- (d) **Voting members.** (1) The voting members of the National Council shall be—
- (A) three members who reside in or do substantial fishing industry business in the Northeast region;
 - (B) three members who reside in or do substantial fishing industry business in the Southeast region;
 - (C) three members who reside in or do substantial fishing industry business in the Pacific region;
 - (D) three members who reside in or do substantial fishing industry business in the Alaska region;
 - (E) two members-at-large with demonstrated expertise in fresh-water and inland commercial fisheries, at least one of whom is not a resident of the States of the Alaska, Pacific, Southeast, and Northeast regions; and
 - (F) one member-at-large who is either a person professionally engaged in the dissemination of information pertaining to the nutritional benefits and preparation of fish and fish products or a person who is a member of an organized labor union and has expertise in the United States fisheries.
- (2) Of the members appointed pursuant to each of paragraphs (1)(A) through (D) of this subsection, one shall be a harvester, one shall be a processor or a receiver, and one shall be a marketer.
- (e) **Term of office.** Members of the National Council shall be appointed for a term of 4 years. A vacancy in the National Council shall not affect its ability to function. The Secretary shall appoint a new member within sixty days to fill a vacancy in an unexpired term. Any member may remain on the National Council beyond that member's term until a successor is appointed.
- (f) **Chairman.** The National Council shall annually elect a Chairman by a majority of those voting, if a quorum is present. Ten members of the National Council shall constitute a quorum, but a lesser number may hold hearings.
- (g) **First meeting.** The National Council shall first meet within one hundred and eighty days after the date of enactment of this Act [enacted Nov. 14, 1986].
- (h) **Compensation of members.** Members of the National Council shall serve without compensation, but shall be reimbursed in accordance with section 5703 of title 5, United States Code, for reasonable travel costs and expenses incurred in performing their duties as members of the National Council.
- (Nov. 14, 1986, P. L. 99-659, Title II, § 205, 100 Stat. 3719; June 27, 1988, P. L. 100-350, § 3, 102 Stat. 660.)

HISTORY; ANCILLARY LAWS AND DIRECTIVES

Amendments:

1988. Act June 27, 1988, in subsec. (d)(1)(E), substituted "at least one of whom is not a resident of the States of the Alaska, Pacific, Southeast, and Northeast regions" for "and who are not residents of the States of Alaska, Pacific, Southeast, or Northeast regions".

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Other provisions:

Uninterrupted service. Act Nov. 28, 1990, P. L. 101-627, Title VII, § 704(a), 104 Stat. 4464, provides: "Individuals serving on September 30, 1990, as members of the National Fish and Seafood Promotional Council shall be deemed to continue as members in uninterrupted service since the date of their initial appointment."

Filling of vacancies. Act Nov. 28, 1990, P. L. 101-627, Title VII, § 704(b), 104 Stat. 4464, provides: "Notwithstanding section 206(e) [205(e)] [subsec. (e) of this section] of the Fish and Seafood Promotion Act of 1986 (16 U.S.C. 4005(e)), any vacancy on the National Fish and Seafood Promotion Act [Council] not filled as of September 30, 1990, shall be filled within 60 days after the date of enactment of this Act [enacted Nov. 28, 1990]."

§ 4005. Functions and duties of the National Council

(a) Functions and duties. The National Council shall—

(1) prepare and submit to the Secretary, for the Secretary's review and approval, an annual marketing and promotion plan which contains descriptions of consumer education, research, and other marketing and promotion activities of the National Council for the following year, including plans to coordinate the activities of councils established under section 210 of this title [16 USCS § 4009];

(2) prepare and submit to the Secretary, for the Secretary's review and approval, an annual budget of the anticipated expenses and disbursements of the National Council, including probable costs of consumer education, research, and other marketing and promotion plans or projects, and referenda under section 210 of this title [16 USCS § 4009];

(3) maintain accounting records of the receipt and disbursement of all funds entrusted to the National Council, subject to the Secretary's right to review or inspect such records;

(4) maintain such books and records as the Secretary determines appropriate; and

(5) prepare and submit to the Secretary from time to time such reports or proposals as the Secretary or the National Council determines appropriate for furthering the purposes and policies of this title.

(b) Annual plan. Each annual marketing and promotion plan shall be directed to—

(1) increasing the general demand for fish and fish products;

(2) encouraging, expanding, or improving the marketing and promotion and utilization of fish and fish products; and

(3) improving the dissemination of data collected by consumer education, research, and other marketing promotion activities.

(c) Prohibition on certain references. Consumer education and other marketing and promotion activities of the National Council shall contain no reference to a private brand or trade name and shall avoid use of deceptive acts or practices in behalf of fish or fish products or with respect to the quality, value, or use of any competing product or group of products. In addition, the National Council may not promote the consumption or purchase of a single or group of similar fish species (such as members of the same genera); except that the Council may use illustrations of a single or group of similar fish species in the course of promoting the generic consumption of fish and fish products.

(d) Executive director. The National Council may employ and determine the salary of an executive director, but such salary shall not exceed Senior Executive Service Level 6. The executive director shall have demonstrated expertise in the marketing and promotion of food products and may, without regard to the provisions of title 5, United States Code, with the approval of the National Council, select and employ additional staff as necessary.

(e) Funding of referendum. The National Council may enter into agreements with applicants proposing to establish a council under section 210 of this title [16 USCS § 4009] for the purposes of funding a referendum establishing the council. The National Council may enter into agreements with the councils established under section 210 of this title [16 USCS § 4009] for the purpose of funding a referendum to establish quality standards, or a referendum to terminate any such council.

(f) Agreements. The National Council may enter into agreements to develop and carry out activities authorized under this title.

(g) Termination of National Council. The National Council shall cease to exist on December 31, 1991.

(Nov. 14, 1986, P. L. 99-659, Title II, § 206, 100 Stat. 3720; Nov. 28, 1990, P. L. 101-627, Title VII, § 701, 104 Stat. 4463.)

HISTORY; ANCILLARY LAWS AND DIRECTIVES

References in text:

"This title", referred to in this section, is title II of Act Nov. 14, 1986, P. L. 99-659, 100

Stat. 3717, which generally appears as 16 USCS §§ 4001 et seq. For full classification of such title, consult USCS Tables volumes.

Amendments:

1990, Act Nov. 28, 1990, in subsec. (g), substituted "December 31, 1991" for "October 1, 1990".

Other provisions:

Continuity of Council functions, contracts, and personnel. Act Nov. 28, 1990, P. L. 101-627, Title VII, § 705, 104 Stat. 4464, provides: "All current functions, contracts in force, and existing personnel of the National Fish and Seafood Promotional Council as of September 30, 1990, are reauthorized and extended, and shall continue as if uninterrupted, notwithstanding section 206(g) of the Fish and Seafood Promotion Act of 1986 (16 U.S.C. 4005(g)) as in effect on September 30, 1990."

§ 4006. Duties of the Secretary with regard to the National Council

(a) Duties of the secretary. The Secretary shall—

- (1) within sixty days after its submission by the National Council, review the annual marketing and promotion plan and budget and, if the Secretary determines that such plan and budget are in accordance with the purposes and policies of this title, approve such plan and budget;
- (2) administer the Fund and, in accordance with subsection (b) of this section, withdraw from the Fund such sums as are necessary to carry out the National Council's approved marketing and promotion plan and budget;
- (3) promulgate regulations necessary to carry out the purposes and policies of this title;
- (4) provide such administrative assistance as the National Council may require for purposes of its initial organization and operation; and
- (5) make all initial appointments to the National Council within ninety days after the date of enactment of this Act [enacted Nov. 14, 1986].

(b) Withdrawal of funds. The Secretary shall make withdrawals of sums from the Fund under this section at the request of the National Council, unless the Secretary determines that the purposes for which such sums are requested are not reasonably likely to further the purposes and policies of this title.

(Nov. 14, 1986, P. L. 99-659, Title II, § 207, 100 Stat. 3721; Nov. 28, 1990, P. L. 101-627, Title VII, § 704(c), 104 Stat. 4464.)

HISTORY; ANCILLARY LAWS AND DIRECTIVES

References in text:

"This title", referred to in this section, is title II of Act Nov. 14, 1986, P. L. 99-659, 100 Stat. 3717, which generally appears as 16 USCS §§ 4001 et seq. For full classification of such title, consult USCS Tables volumes.

Amendments:

1990, Act Nov. 28, 1990, in subsec. (a)(5), inserted "initial".

§ 4007. Voluntary payments

Any person may make voluntary payments to assist the National Council to carry out its annual marketing and promotion plan and annual budget. The Secretary shall deposit such payments into the Fund.

(Nov. 14, 1986, P. L. 99-659, Title II, § 208, 100 Stat. 3722.)

§ 4008. Establishment of Fisheries Promotional Fund

(a) Establishment of the Fund. There is established in the Treasury of the United States a Fisheries Promotional Fund. The Fund shall be available, to the extent provided for in appropriation Acts, for the purpose of making payments to carry out the annual marketing and promotion plan and annual budget of the National Council under this title.

(b) Deposits. There shall be deposited in the Fund—

- (1) the moneys transferred to the Fund under section 2(b)(2) of the Act of August 11, 1939 (commonly known as the Saltonstall-Kennedy Act; 15 U.S.C. 713c-3(b));
- (2) payments made voluntarily pursuant to section 208 of this title [16 USCS § 4007]; and
- (3) receipts from investments made under subsection (c) of this section.

(c) Deposits and investments. Sums in the Fund that are not currently needed for the purposes of the Fund shall be kept on deposit in appropriate interest-bearing accounts that shall be established by the Secretary of the Treasury, or invested in obligations of, or guaranteed by, the United States. Any revenue accruing from such deposits and investments shall be deposited in the Fund.

(d) Authorization. There are authorized to be appropriated from the Fund, for the purposes

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of carrying out the annual marketing and promotion plan and annual budget of the National Council under this title, such sums as are deposited in the Fund under subsection (b) of this section in each fiscal year beginning in fiscal year 1987 through fiscal year 1991. (Nov. 14, 1986, P. L. 99-659, Title II, § 209(a)-(d), 100 Stat. 3722; Nov. 28, 1990, P. L. 101-627, Title VII, § 702, 104 Stat. 4463.)

HISTORY; ANCILLARY LAWS AND DIRECTIVES

References in text:

"This title", referred to in this section, is title II of Act Nov. 14, 1986, P. L. 99-659, 100 Stat. 3717, which generally appears as 16 USCS §§ 4001 et seq. For full classification of such title, consult USCS Tables volumes.

Amendments:

1990, Act Nov. 28, 1990, in subsec. (d), substituted "1991" for "1990".

§ 4009. Establishment of a council

(a) Application. An application for a charter for a seafood marketing council for one or more species of fish and fish products of that species may be filed by persons who meet the requirements specified in accordance with subsection (b)(6) of this section.

(b) Form of application. An application for a charter for a council shall be made by filing with the Secretary the text of a proposed charter in such form as shall be prescribed by regulation by the Secretary. The text of a proposed charter must contain such information as the Secretary considers necessary or appropriate for carrying out the provisions of this title, including—

- (1) the name of the council and a provision proclaiming its establishment;
- (2) a declaration of the purposes and objectives of the council;
- (3) a description of the species of fish and fish products for which the council will implement marketing and promotion plans under section 211 of this title [16 USCS § 4010];
- (4) the identification of each sector and the number and terms of representatives of each sector that will be represented as voting members of the council;
- (5) the identification of those sectors (including the sector consisting of harvesters, the sector consisting of receivers, and, if subject to assessment, the sector consisting of importers) subject to a referendum to establish a council under subsection (c) of this section;
- (6) a specification for each sector described under paragraph (5) of this subsection of the minimum requirements, as measured by income, volume, or other relevant factors, that a person engaging in business in the sector must meet in order to participate in a referendum;
- (7)(A) a description of the procedures for determining assessment rates under section 213 of this title [16 USCS § 4012];
(B) the proposed rate or rates that will be imposed by the council on receivers and, if subject to assessment, importers during its first year of operation;
- (C) the maximum amount an assessment rate for any period may be raised above the rate applicable for the immediately preceding period; and
(D) the maximum rate or rates that can be imposed by a council on receivers or importers during the operation of the council;
- (8) a provision setting forth the definition of a quorum for making decisions on council business and the procedures for selecting a chairman of the council;
- (9) a provision setting forth the voting procedures by which votes may be cast by proxy; and
(10) such other provisions relating to administration of the council as the Secretary considers necessary.

The text of a proposed charter shall be accompanied by a document identifying, to the extent practicable by address of place of business, the persons (hereinafter referred to as "sector participants") that are considered by the applicants to meet the requirements specified in paragraph (6) of this subsection. The text of a proposed charter shall include provisions setting forth procedures for providing refunds to those sector participants subject to assessment under section 213 of this title [16 USCS § 4012], and may also include provisions which establish a maximum limit on the amount that any one sector participant may be required to pay under an assessment for any period.

(c) Contents of charter. The Secretary may not approve a proposed charter filed under subsection (a) of this section unless such charter provides that—

- (1) the council will have voting members representing the harvesting, receiving and, if subject to assessment, importing sectors; and

(2) the members of the council shall serve without compensation, but shall be reimbursed for their reasonable expenses incurred in performing their duties as members of the council.

- (d) Review of charter. (1) Within 180 days of the receipt of an application to establish a council, the Secretary shall—

(A) identify, to the extent practicable, those sector participants that meet the requirements for eligibility to participate in the referendum under subsection (e) of this section;

(B) determine, to the extent practicable, if the charter is accompanied by a petition comprised of the signatures or corporate certifications, as the case may be, of no less than three sector participants in each sector identified in accordance with subsection (b)(5) of this section who collectively accounted for, in the twelve-month period immediately preceding the month in which the application was filed, not less than 10 percent of the value of the fish or fish products described in accordance with subsection (b)(3) of this section that were handled by each such sector during that period; and

(C) determine if the proposed charter is consistent with the provisions of this title and any other applicable law.

(2) If any negative determination is made under paragraph (1) of this subsection regarding a proposed charter, the Secretary shall advise in writing the sector participants who made the application of the reasons for such determination. A corrected application may be submitted thereafter to the Secretary for approval.

- (e) Conduct of referendum. (1) Upon making affirmative determinations under subsection (d)

(1) of this section regarding a proposed charter, the Secretary, within 90 days after the date of the last of such determinations, shall conduct a referendum on the adoption of the proposed charter among all sector participants identified in accordance with subsection (d) (1)(A) of this section. The Secretary shall by order establish the council and approve the proposed charter, if the referendum votes which are cast in favor of the proposed charter constitute a majority of the sector participants voting in each sector and the majority collectively accounts for, in the twelve-month period immediately preceding the month in which the proposed charter was filed under subsection (a) of this section, at least sixty-six percent of the value of the fish and fish products described in accordance with subsection (b)(3) of this section that were handled by that sector during such period.

(2) Not less than thirty days prior to holding a referendum under this subsection, the Secretary shall—

(A) publish (by such means as will result in wide publicity in regions affected by the proposed charter) the text of the proposed charter and a list of those sector participants eligible to vote in the referendum; and

(B) provide for public comment, including the opportunity for a public meeting.

(3)(A) The Secretary shall pay all costs of a referendum which establishes a council under this subsection. Within two years after a council is established the council shall reimburse the Secretary for any expenses incurred for the conduct of the referendum from assessments collected by the council. Prior to the holding of a referendum under this subsection, the Secretary shall require the applicants to post a bond or other security acceptable to the Secretary, in an amount which the Secretary determines to be sufficient to pay any expenses incurred for the conduct of the referendum, and shall immediately recover such amount if a referendum fails to result in the establishment of a council.

(B) As used in this paragraph, the term "expenses incurred for the conduct of the referendum" does not include salaries of Government employees or other administrative overhead, but is limited to those additional direct costs incurred in connection with conduct of the referendum.

- (f) Nominations. (1) Within thirty days after a council is established under subsection (e) of this section, the Secretary shall solicit from the sectors represented on the council nominations for members of the council. If the harvesters and receivers represented on the council are engaged in business in two or more regions of the United States, the nominations made under this paragraph, and the appointments to the council made under paragraph (3) of this subsection, must, to the extent practicable, result in equitable representation for the constituent regions.

(2) No person is eligible for nomination or appointment as a member of a council unless such person is knowledgeable and experienced with regard to the activities of, and is or has been actively engaged in the business of, the sector which such person will represent on the council.

(3) The Secretary shall, within sixty days after the end of the thirty-day period referred to

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in paragraph (1) of this subsection, appoint the members of the council from among the nominees.

(4) A vacancy on a council shall be filled, within sixty days after the vacancy occurs, in the same manner in which the original appointment was made. A member appointed to fill a vacancy occurring before the expiration of the term for which the member's predecessor was appointed shall be appointed only for the remainder of such term.

(5) The Secretary shall remove any member of a council if the council concerned first recommends, by not less than two-thirds of its members, removal for cause. Such a recommendation of a council must be in writing and accompanied by a statement of the reasons upon which the recommendation is based.

(g) Nature of a council. A council is not an instrumentality of the United States Government. (Nov. 14, 1986, P. L. 99-659, Title II, § 210, 100 Stat. 3723.)

HISTORY; ANCILLARY LAWS AND DIRECTIVES

References in text:

"This title", referred to in this section, is title II of Act Nov. 14, 1986, P. L. 99-659, 100 Stat. 3717, which generally appears as 16 USCS §§ 4001 et seq. For full classification of such title, consult USCS Tables volumes.

§ 4010. Functions and powers of councils

(a) Activities of a council. (1) Each council shall—

(A) Adopt a seal which shall be judicially noticed;

(B) implement all terms of its charter;

(C) prepare and submit to the Secretary, for review and approval under section 212(a) (1) of this title [16 USCS § 4011(a)(1)], a marketing and promotion plan and amendments to such plan which contain descriptions of the projected consumer education, research, and other marketing and promotion activities of the council;

(D) implement and administer an approved marketing and promotion plan and amendments to such plan;

(E) determine the assessments to be made under section 213 of this title [16 USCS § 4012] and administer the collection of such assessments to finance council expenses described in paragraph (2) of this subsection;

(F) receive, investigate and report to the Secretary accounts of violations of rules or orders relating to assessments collected under section 213 of this title [16 USCS § 4012], or quality standard requirements established under subsection (c) of this section;

(G) prepare and submit to the Secretary, for review and approval under section 212(a) (1) of this title [16 USCS § 4011(a)(1)], a budget (on a fiscal year basis) of the anticipated expenses and disbursements of the council, including—

(i) all administrative and contractual expenses;

(ii) the probable costs of consumer education, research, and other marketing and promotion plans or projects;

(iii) the costs of the collection of assessments; and

(iv) the expense of repayment of the costs of each referendum conducted in regard to the council;

(H) maintain books and records, prepare and submit to the Secretary such reports from time to time as may be necessary for appropriate accounting with respect to the receipt and disbursement of funds entrusted to it, and cause a complete audit report to be submitted to the Secretary at the end of each fiscal year;

(I) reimburse the Secretary for the expenses incurred for the conduct of the referendum to establish the council or any subsequent referendum to terminate the council that fails; and

(J) prepare and submit to the Secretary from time to time such reports or proposals as the council determines appropriate to further the purposes of this title.

(2) Funds collected by a council under section 213 of this title [16 USCS § 4012] shall be used by the council for—

(A) research, consumer education, and other marketing and promotion activities regarding the quality and marketing of fish and fish products;

(B) other expenses, as described in subsection (a)(1)(G) of this section;

(C) such other expenses for the administration, maintenance, and functioning of the council as may be authorized by the Secretary;

(D) any reserve fund established under subsection (b)(5) of this section and any

administrative expenses incurred by the Secretary specified as reimbursable under this title.

(3) Marketing and promotion plans and amendments to such plans prepared by a council under subsection (a)(1)(C) of this section shall be designed to increase the general demand for fish and fish products described in accordance with section 210(b)(3) of this title [16 USCS § 4009(b)(3)] by encouraging, expanding, and improving the marketing, promotion and utilization of such fish and fish products, in domestic or foreign markets, or both, through consumer education, research, and other marketing and promotion activities.

(4) Consumer education and other marketing and promotion activities carried out by a council under a marketing and promotion plan and amendments to such plan may not contain references to any private brand or trade name and shall avoid the use of deceptive acts or practices in promoting fish or fish products or with respect to the quality, value, or use of any competing product or group of products.

(b) Authority of a council. A council may—

(1) sue and be sued;

(2) enter into contracts;

(3) employ and determine the salary of an executive director who may, with the approval of the council, employ and determine the salary of such additional staff as may be necessary;

(4) collaborate with other councils and with the National Council in establishing and implementing a national marketing and promotion plan for one or more species of fish or fish products; and

(5) establish a reserve fund from monies collected and received under section 213 of this title [16 USCS § 4012] to permit an effective and sustained program of research, consumer education, and other marketing and promotion activities regarding the quality and marketing of fish and fish products in years when production and assessment income may be reduced, but the total reserve fund may not exceed the amount budgeted for the current fiscal year of operation.

(c) Quality standards. (1) A council may develop and submit to the Secretary for approval, or upon the request of a council the Secretary shall develop, quality standards for a fish or fish product described in accordance with section 210(b)(3) of this title [16 USCS § 4009(b)(3)]. Any quality standard developed under this paragraph shall be consistent with the purposes of this title.

(2) A quality standard developed under paragraph (1) of this subsection may be adopted by a council by a majority of the members of the council if first approved, in a referendum conducted by the council, by a majority of the sector participants of the sector concerned voting and the majority collectively accounted for, in the twelve-month period immediately preceding the month in which the referendum is held, not less than sixty-six percent of the value of the fish or fish products described in accordance with section 210(b)(3) of this title [16 USCS § 4009(b)(3)] that were handled by that sector during such period.

(3) With respect to a quality standard adopted under paragraph (2) of this subsection, the council shall develop and file with the Secretary an official identification in the form of a symbol, stamp, label, or seal that will be used to indicate that a fish or fish product meets the quality standard at the time the official identification is affixed to the fish or fish product, or is affixed to or printed on the packaging material of the fish or fish product.

(4) The Secretary shall establish by regulation procedures for the use of an official identification filed with the Secretary under paragraph (3) of this subsection. Misuse of an official identification established under this section shall constitute a violation of this title.

(5) Prior to issuing final regulations under paragraph (4) of this subsection, the Secretary shall—

(A) publish the proposed regulations by such means as will result in wide publicity in affected regions; and

(B) provide for public comment and the opportunity for a public hearing.

(6) A council may receive, investigate and report to the Secretary accounts of violations of regulations issued under paragraph (4) of this subsection.

(7) Any regulation issued under paragraph (4) of this subsection shall be repealed immediately by the Secretary upon the termination under section 216 of this title [16 USCS § 4015] of the council that developed the official identification to which the regulations apply.

(8) The procedures applicable to the adoption and the taking effect of a quality standard developed under this subsection also apply to a subsequent amendment or the termination of such standard.

(d) Amendment of a charter. A council may submit to the Secretary amendments to the text

CONSERVATION

specified as reimbursable under this title. Amendments to such plans prepared by a council designed to increase the general demand in accordance with section 210(b)(3) of this title [16 USC § 4009(b)(3)] and improving the marketing, promotion in domestic or foreign markets, or both, and marketing and promotion activities, and promotion activities carried out by a council and amendments to such plan may not name and shall avoid the use of deceptive means or with respect to the quality, value, or contents.

ative director who may, with the approval of the Secretary, employ such additional staff as may be necessary.

he National Council in establishing and on plan for one or more species of fish or shellfish.

ed and received under section 213 of this title, a sustained program of research, consumer education activities regarding the quality and production and assessment income may not exceed the amount budgeted for the fiscal year.

and submit to the Secretary for approval, all develop, quality standards for a fish or shellfish in accordance with section 210(b)(3) of this title [16 USC § 4009(b)(3)] and this paragraph shall be consistent with the purposes of this title.

ch (1) of this subsection may be adopted by a council if first approved, in a referendum by the sector participants of the sector concerned, or, in the twelve-month period immediately following the referendum, not less than sixty-six percent of the participants in accordance with section 210(b)(3) of this title [16 USC § 4009(b)(3)] and by that sector during such period.

nder paragraph (2) of this subsection, the council shall issue an official identification in the form of a label indicating that a fish or fish product meets the requirements of this title. Such identification is affixed to the fish or fish product.

procedures for the use of an official label in accordance with paragraph (3) of this subsection. Misuse of an official label shall constitute a violation of this title. Under paragraph (4) of this subsection, the Secretary shall require that the label be prominently displayed on the fish or fish product.

means as will result in wide publicity in the receiving sector.

unity for a public hearing. The Secretary shall maintain accounts of violations of this title.

) of this subsection shall be repealed under section 216 of this title [16 USC § 4009(b)(3)] and the official identification to which the label is affixed.

the taking effect of a quality standard subsequent amendment or the termination of the label.

o the Secretary amendments to the text of the label.

FISH AND SEAFOOD PROMOTION

16 USCS § 4012

of the council's charter. Any proposed amendments to a charter shall be approved or disapproved in the same manner as the original charter was approved under section 210(d) and (e) of this title [16 USCS § 4009(d), (e)], with the exception of section 210(d)(1)(B). [16 USCS § 4009(d)(1)(B)]. (Nov. 14, 1986, P. L. 99-659, Title II, § 211 100 Stat. 3726.)

HISTORY; ANCILLARY LAWS AND DIRECTIVES

References in text:

"This title", referred to in this section, is title II of Act Nov. 14, 1986, P. L. 99-659, 100 Stat. 3717, which generally appears as 16 USCS §§ 4001 et seq. For full classification of such title, consult USCS Tables volumes.

§ 4011. Functions and powers of the Secretary

(a) Duties of the Secretary. In addition to the duties prescribed under section 210 of this title [16 USCS § 4009], the Secretary shall—

- (1) review, for consistency with the provisions of this title and other applicable law, and approve or disapprove, marketing and promotion plans and budgets within sixty days after their submission by a council;
- (2) immediately notify a council in writing of the disapproval of a marketing and promotion plan or budget, together with reasons for such disapproval;
- (3) issue orders and amendments to such orders that are necessary to implement quality standards under section 211(c) of this title [16 USCS § 4010(c)];
- (4) promulgate regulations necessary to carry out the purposes of this title;
- (5) enforce the provisions of this title, as provided under section 217 of this title [16 USCS § 4016]; and
- (6) make all appointments to councils in accordance with section 210(f) of this title [16 USCS § 4009(f)].

(b) Assistance. The Secretary may provide, on a reimbursable or other basis, such administrative or technical assistance as a council may request for purposes of the initial organization and subsequent operation of the council.

(Nov. 14, 1986, P. L. 99-659, Title II, § 212, 100 Stat. 3728.)

HISTORY; ANCILLARY LAWS AND DIRECTIVES

References in text:

"This title", referred to in this section, is title II of Act Nov. 14, 1986, P. L. 99-659, 100 Stat. 3717, which generally appears as 16 USCS §§ 4001 et seq. For full classification of such title, consult USCS Tables volumes.

§ 4012. Assessments

(a) Authority. A council shall impose and administer the collection of the assessments that are necessary to pay for all expenses incurred by the council in carrying out its functions under this title.

(b) Method of imposition. (1) Assessments shall be imposed on sector participants in the receiving sector or the importing sector, or both, as specified in an approved council charter.

(2) An assessment on sector participants in the receiving sector shall be—

- (A) except for an owner of a fish processing vessel, in the form of a percentage of the value of the fish described in accordance with section 210(b)(3) of this title [16 USCS § 4009(b)(3)] when purchased by such participants from fish harvesters; and
- (B) for an owner of a fish processing vessel, in the form of a percentage of the value of the fish described in accordance with section 210(b)(3) of this title [16 USCS § 4009(b)(3)] and harvested by such a vessel that is no less than the value of such fish, if such fish had been purchased by a receiver other than an owner of such a vessel.

(3) An assessment on sector participants in the importing sector shall be in the form of a percentage of the value, as determined for the purposes of the customs laws, of the fish or fish products described in accordance with section 210(b)(3) of this title [16 USCS § 4009(b)(3)] when entered, or withdrawn from warehouse for consumption, in the customs territory of the United States by such sector participants.

(c) Prohibition on Assessment. A council may not impose an assessment on any person that was not eligible to vote in the referendum establishing the council under section 210(e) of this title [16 USCS § 4009(e)] by reason of failure to meet the requirements specified under section 210(b)(6) of this title [16 USCS § 4009(b)(6)], unless such person, after the date on which such referendum is held, meets the requirements of section 210(b)(6) of this title [16 USCS § 4009(b)(6)].

(d) **Voluntary payments.** Any person may make voluntary payments or in-kind contributions to a council for purposes of assisting the council in carrying out its functions.

(e) **Deposit of funds.** All funds collected or received by a council under this section shall be deposited by the council in an appropriate account in the name of the council specified in its charter. Funds eligible to be collected or received by a council shall be limited to those authorized under this section.

(f) **Information.** (1) Sector participants shall make available to the Secretary such information and data as is necessary for the effectuation, administration or enforcement of this title or any order or regulation issued pursuant to this title. Except as provided in paragraphs (2) and (3) of this subsection, any information obtained in carrying out this subsection shall be kept confidential by all officers and employees of the Department of Commerce, independent accountants and other persons who have access to such information.

(2) If the Secretary or an employee of the United States Government is a party to a suit or administrative action involving an assessment, order, or regulation issued under this title, the Secretary may disclose information obtained under paragraph (1) of this subsection to the extent allowed by the judicial or administrative officer presiding over such suit or action.

(3) This subsection shall not prohibit—

(A) the issuance of general or statistical statements based upon reports of a number of persons subject to the provisions of this title which do not identify the information furnished by any person; or

(B) the publication by direction of the Secretary of the name of any person violating a requirement relating to an assessment imposed under subsection (a) of this section or to quality standards implemented by the Secretary under section 211(c) of this title [16 USCS § 4010(c)], and a statement of the particular provisions of the requirement violated by such person.

(4) Any individual who is required to keep information confidential under this subsection and who knowingly violates this subsection shall, upon conviction, be—

(A) subject to a fine of not more than \$1,000 or to imprisonment for not more than one year, or both; and

(B) removed from office if an officer or employee of a council or the Department of Commerce.

(Nov. 14, 1986, P. L. 99-659, Title II, § 213, 100 Stat. 3729.)

HISTORY; ANCILLARY LAWS AND DIRECTIVES

References in text:

"This title", referred to in this section, is title II of Act Nov. 14, 1986, P. L. 99-659, 100 Stat. 3717, which generally appears as 16 USCS §§ 4001 et seq. For full classification of such title, consult USCS Tables volumes.

§ 4013. Petitions

(a) **Filing of petition.** Any person subject to assessment under section 213 of this title [16 USCS § 4012] may file a written petition with the Secretary alleging that—

(1) the assessment,

(2) the plan approved under section 212(a)(1) of this title [16 USCS § 4011(a)(1)] on which the assessment is based, or

(3) any obligation imposed under the plan,

is not in accordance with law and requesting the Secretary to modify or take other appropriate action regarding the assessment or plan.

(b) **Form of petition.** Any such petition shall be in writing and filed within the period prescribed by the Secretary. A person who files a petition under this section shall be given an opportunity for a hearing regarding the petition in accordance with regulations issued by the Secretary. After such a hearing, or if no hearing is requested, after consideration of all documentation and other evidence, the Secretary shall make a ruling upon such petition.

(Nov. 14, 1986, P. L. 99-659, Title II, § 214, 100 Stat. 3730.)

§ 4014. Refunds

Notwithstanding any other provision of this title, any person who pays an assessment under this title may demand and shall promptly receive from the council a refund of such assessment. A demand for refund must be made in accordance with the procedures, and within such time, as shall be prescribed by the council and approved by the Secretary. Procedures to provide such a refund shall be established before any such assessment may be collected. Such procedures shall allow any person to request a refund for not less than ninety

voluntary payments or in-kind contributions in carrying out its functions.

by a council under this section shall be in the name of the council specified in its charter. Any payment made by a council shall be limited to those

available to the Secretary such information for administration or enforcement of this title or for any other purpose. Except as provided in paragraphs (2) and (3), information obtained in carrying out this subsection shall be made available to the employees of the Department of Commerce, who have access to such information.

United States Government is a party to a suit, judgment, order, or regulation issued under this title, the Secretary shall, upon obtaining under paragraph (1) of this subsection, a written statement from the official or administrative officer presiding over

statements based upon reports of a number of persons, the title of which do not identify the information

Secretary of the name of any person violating a provision of this title under subsection (a) of this section or to the Secretary under section 211(c) of this title [16 USC § 4009(b)(3)] that were handled by that sector during such period, the Secretary, within 90 days after such determination, shall conduct a referendum for termination of the council among all sector participants in that sector.

information confidential under this subsection shall, upon conviction, be—
fined not more than \$100 or to imprisonment for not more than

employee of a council or the Department of

its (729.)

USCS AND DIRECTIVES

of Act Nov. 14, 1986, P. L. 99-659, 100 Stat. 3717, which generally appears as 16 USCS §§ 4001 et seq. For full classification of

assessment under section 213 of this title [16 USC § 4012(e)] on the basis of the Secretary alleging that—

of this title [16 USCS § 4011(a)(1)] on

the Secretary to modify or take other

in writing and filed within the period of time under this section shall be given an opportunity to be heard in accordance with regulations issued by the Secretary. If requested, after consideration of all the facts, the Secretary shall make a ruling upon such petition. (Stat. 3730.)

any person who pays an assessment under this title from the council a refund of such amount in accordance with the procedures, and the council and approved by the Secretary, shall be made before any such assessment may be requested a refund for not less than ninety

days from such collection, and provide that any such refund shall be made within sixty days after demand for such refund is made.

(Nov. 14, 1986, P. L. 99-659, Title II, § 215, 100 Stat. 2730.)

HISTORY; ANCILLARY LAWS AND DIRECTIVES

References in text:

"This title", referred to in this section, is title II of Act Nov. 14, 1986, P. L. 99-659, 100 Stat. 3717, which generally appears as 16 USCS §§ 4001 et seq. For full classification of such title, consult USCS Tables volumes.

§ 4015. Termination of a council

(a) Petition for termination. (1) A petition to terminate a council may be filed with the Secretary by no less than three sector participants in any one sector. Any petition filed under this subsection shall be accompanied by a written document explaining the reasons for such petition.

(2) If the Secretary determines that a petition filed under paragraph (1) of this subsection is accompanied by the signatures, or corporate certifications, as the case may be, of no less than three sector participants in a sector referred to in paragraph (1) of this subsection who collectively accounted for, in the twelve-month period immediately preceding the month in which such petition was filed, not less than 20 percent of the value of the fish or fish products described in accordance with section 210(b)(3) of this title [16 USCS § 4009(b)(3)] that were handled by that sector during such period, the Secretary, within 90 days after such determination, shall conduct a referendum for termination of the council among all sector participants in that sector.

(3) Not less than 30 days prior to holding a referendum under this subsection, the Secretary shall publish a notice of such referendum, including the document explaining the reasons for the petition filed under paragraph (1) of this subsection and any other relevant information the Secretary considers appropriate.

(4) If the referendum votes which are cast in favor of terminating the council constitute a majority of the sector participants voting and the majority, in the period referred to in paragraph (2) of this subsection, collectively accounted for not less than sixty-six percent of the value of such fish and fish products that were handled during such period by a sector referred to in paragraph (1) of this subsection, the Secretary shall by order terminate the council effective as of a date by which the affairs of the council may be concluded on an orderly basis.

(5) The Secretary initially shall pay all costs of a referendum conducted under this subsection. Prior to conducting such a referendum, the Secretary shall require petitioners to post a bond or other security acceptable to the Secretary in an amount which the Secretary determines to be sufficient to pay any expenses incurred for the conduct of such referendum.

(6)(A) If a referendum conducted under this subsection fails to result in the termination of the council, the Secretary shall immediately recover the amount of the bond posted by petitioners under paragraph (5) of this subsection.

(B) If a referendum conducted under this subsection results in the termination of the council, the Secretary shall recover the expenses incurred for the conduct of the referendum from the account established by the council under section 213(e) of this title [16 USCS § 4012(e)]. If the amount remaining in such account is insufficient for the Secretary to recover all expenses incurred for the conduct of the referendum, the Secretary shall recover the balance of such expenses from the petitioners that posted a bond under paragraph (5) of this subsection.

(b) Payment of remaining funds. If a council is terminated under subsection (a) of this section, the Secretary, after recovering all expenses incurred for the conduct of the referendum under subsection (a) of this section, shall take such action as is necessary and practicable to ensure that moneys remaining in the account established by the council under section 213(e) of this title [16 USCS § 4012(e)] are paid on a prorated basis to the sector participants from whom those moneys were collected under section 213 of this title [16 USCS § 4012].

(Nov. 14, 1986, P. L. 99-659, Title II, § 216, 100 Stat. 3730.)

§ 4016. Enforcement

(a) Authority. (1) The district courts of the United States shall have jurisdiction specifically to enforce and to prevent and restrain any person from violating any assessment, order or regulation made or issued under this title.

(2)(A) If a council has reason to believe that a person subject to an assessment, order or

regulation made or issued under this title is violating such assessment, order or regulation, it may refer the matter to the Secretary.

(B) Except as provided in subparagraphs (C) or (D) of this paragraph, any civil action authorized to be brought under this subsection, when referred by a council under subparagraph (A) of this paragraph, shall be referred to the Attorney General for appropriate action.

(C) If the Secretary believes that the administration and enforcement of the provisions of this title would be adequately served by taking administrative action under subsection (b) of this section or by providing written notice or warning to any person committing a violation of this title, the Secretary is not required to refer such violation to the Attorney General.

(D) Whenever a matter has been referred by a council under subparagraph (A) of this paragraph and the Secretary or the Attorney General fails within 60 days of such referral to take appropriate action, the council may, upon filing notice with the Secretary or Attorney General, as appropriate, and other interested parties, bring an action in its own name.

(b) Recovery of costs. (1)(A) When a council brings an action under subsection (a)(2) of this section, the council may recover costs of litigation and, where the action is brought to collect an unpaid assessment, interest from the date the amount became due and payable.

(B) Any person who violates any provision of an order (including a cease and desist order previously issued under this paragraph) or regulation issued by the Secretary under this title, or who fails or refuses to pay, collect, or remit any assessment required under this title, may be assessed a civil penalty by the Secretary of not less than \$500 nor more than \$5,000 for each such violation. Each violation shall be a separate offense. In addition to, or in lieu of, a civil penalty under this subparagraph, the Secretary may issue an order requiring such person to cease and desist from continuing such violation.

(C) No penalty shall be assessed, or cease and desist order issued, under this paragraph unless the affected person is given notice and opportunity for a hearing before the Secretary with respect to such violation.

(D) Any order of the Secretary under this paragraph assessing a penalty or imposing a cease and desist order shall be final and conclusive, unless the affected person files an appeal from the Secretary's order with the appropriate United States court of appeals.

(2)(A) Any person against whom a violation is found under paragraph (1) of this subsection may obtain review of such action in the United States court of appeals for the circuit in which such person resides or has his place of business, or in the United States Court of Appeals for the District of Columbia Circuit, by filing a notice of appeal in such court within thirty days after the date of such order and by simultaneously sending a copy of such notice by certified mail to the Secretary.

(B) The Secretary shall promptly file in the court a certified copy of the record upon which such violation was found.

(C) The findings of the Secretary shall be set aside only if found to be unsupported by substantial evidence or not in accordance with law.

(3)(A) If any person fails to pay a civil penalty under this subsection after it has become final, the Secretary shall refer the matter to the Attorney General.

(B) The Attorney General shall institute appropriate action to recover the amount assessed under this subsection in a district court of the United States.

(C) If, within sixty days after such referral, the Attorney General fails to institute such appropriate action, the council to whose programs the assessment, order or regulation relates may institute an action in its own name.

(Nov. 14, 1986, P. L. 99-659, Title II, § 217, 100 Stat. 3732.)

HISTORY; ANCILLARY LAWS AND DIRECTIVES

References in text:

"This title", referred to in this section, is title II of Act Nov. 14, 1986, P. L. 99-659, 100 Stat. 3717, which generally appears as 16 USCS §§ 4001 et seq. For full classification of such title, consult USCS Tables volumes.

§ 4017. Investigations

(a) Authority to make investigations. The Secretary may make such investigations as the Secretary determines necessary to—

(1) carry out the Secretary's responsibilities under this title; and

CONSERVATION

is making such assessment, order or regulation.

(D) of this paragraph, any civil action on, when referred by a council under referred to the Attorney General for

ation and enforcement of the provisions including administrative action under subsection notice or warning to any person. No action is not required to refer such violation

council under subparagraph (A) of this General fails within 60 days of such action may, upon filing notice with the and other interested parties, bring an

in action under subsection (a)(2) of this ion and, where the action is brought to he date the amount became due and

an order (including a cease and desist or regulation issued by the Secretary collect, or remit any assessment required by the Secretary of not less than \$500 n. Each violation shall be a separate penalty under this subparagraph, the son to cease and desist from continuing

exist order issued, under this paragraph opportunity for a hearing before the

pre-assessing a penalty or imposing a sive, unless the affected person files an priate United States court of appeals.

found under paragraph (1) of this the United States court of appeals for his place of business, or in the United olumbia Circuit, by filing a notice of : date of such order and by simultane-ail to the Secretary.

rt a certified copy of the record upon

de only if found to be unsupported by w.

der this subsection after it has come Attorney General.

appropriate action to recover the amount of the United States.

Attorney General fails to institute such ns the assessment, order or regulation

(732.)

AND DIRECTIVES

Nov. 14, 1986, P. L. 99-659, 100 01 et seq. For full classification of

may make such investigations as the

s and

INTERJURISDICTIONAL FISHERIES

16 USCS § 4102

(2) determine whether any person has engaged in any act or practice which constitutes a violation of the provisions of this title.

(b) Oaths and affirmations. For the purpose of investigations under subsection (a) of this section, the Secretary may administer oaths and affirmations, subpoena witnesses, compel their attendance, take evidence, and require the production of any books, papers, and documents which are relevant to the inquiry. The attendance of such witnesses and the production of any such records may be required from any place in the United States.

(c) Court orders. In case of contumacy or refusal to obey a subpoena issued under this section by any person, the Secretary may invoke the aid of any court of the United States within the jurisdiction of which such investigation or proceeding is carried on, or where such person resides or has his business, to require the attendance and testimony of witnesses and the production of books, papers, and documents. Such court may issue an order requiring such person to appear before the Secretary to produce records or to give testimony relating to the matter under investigation.

(Nov. 14, 1986, P. L. 99-659, Title II, § 218 100 Stat. 3733.)

HISTORY; ANCILLARY LAWS AND DIRECTIVES

References in text:

"This title", referred to in this section, is title II of Act Nov. 14, 1986, P. L. 99-659, 100 Stat. 3717, which generally appears as 16 USCS §§ 4001 et seq. For full classification of such title, consult USCS Tables volumes.

CHAPTER 61. INTERJURISDICTIONAL FISHERIES

Section

- 4101. Purposes
- 4102. Definitions
- 4103. Apportionment
- 4104. State projects
- 4105. Property
- 4106. Reports
- 4107. Authorization of appropriations

§ 4101. Purposes

The purposes of this title are—

- (1) to promote and encourage State activities in support of the management of interjurisdictional fishery resources; and
- (2) to promote and encourage management of interjurisdictional fishery resources throughout their range.

(Nov. 14, 1986, P. L. 99-659, Title III, § 302 100 Stat. 3734.)

HISTORY; ANCILLARY LAWS AND DIRECTIVES

References in text:

"This title", referred to in this section, is title III of Act Nov. 14, 1986, P. L. 99-659, 100 Stat. 3733, which generally appears as 16 USCS §§ 4101 et seq. For full classification of such title, consult USCS Tables volumes.

Effective date of section:

Act Nov. 14, 1986, P. L. 99-659, Title III, § 310, 100 Stat. 3738, provides: "This title takes effect October 1, 1987."

Short titles:

Act Nov. 14, 1986, P. L. 99-659, Title III, § 301, 100 Stat. 3733, provides: "This title may be cited as the 'Interjurisdictional Fisheries Act of 1986'." For full classification of such title, consult USCS Tables volumes.

CODE OF FEDERAL REGULATIONS

Add:
50 CFR Part 253.

§ 4102. Definitions

For the purposes of this title:

- (1) The term "Federal fishery management plan" means a plan developed under the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.).

**PRINCE WILLIAM SOUND
SALMON MANAGEMENT PLAN

PROPOSAL REPORT**

FEBRUARY 9, 1991

Alaska Department of Fish and Game
Post Office Box 669
Cordova, AK 99574
Phone: 907/424-3214
FAX: 907/424-3235

Prince William Sound Aquaculture Corporation
Post Office Box 1110
Cordova, AK 99574
Phone: 907/424-7511
FAX: 907/424-7514

PREFACE

This document culminates a task which originated with the Alaska Board of Fisheries in December of 1988. The task was issued following many hours of public testimony concerning fishery proposals addressing the allocation of hatchery fish and gear group conflict in Western Prince William Sound. Rather than take a shot in the dark the Board of Fish opted to take no action on any of the proposals. However, the Board did direct the fishing community in Prince William Sound to solve the problem by the next Board of Fisheries meeting or they (the Board) would solve the problem for us. Most directives of this nature generally mean "you will be better off solving your own problems because if we have to do it you probably won't like what we do".

The fishing community rose to the occasion and we now have components of an integrated fisheries plan that includes allocation, production and management. No one group, agency, entity or individual is solely responsible for any one component. Hatchery operators (Prince William Sound Aquaculture Corporation), the Alaska Department of Fish and Game, fishing gear group organizations, and individual fishermen have all contributed to the formulation of this public policy.

We (Prince William Sound/Copper River Regional Planning Team) went to great extremes to gather input from all commercial fisheries permit holders for development of the "PLAN" as the fisheries management plan came to be known. We are sure that many of the people who provided input felt that we totally ignored what they had to say. Everyone who testified or provided written testimony was heard. In the search for middle ground of a highly polarized issue it is impossible to address all concerns and heed all suggestions. We, the Regional Planning Team, did the best job we could to achieve a fair and equitable compromise to the issues at hand. Other issues arose during this process which we chose not to address because we felt they did not fall into the scope of our task. We encouraged people concerned with those issues to pursue their resolution.

This report is intended to document our path for development of this proposal. It is important that everyone interested in the Prince William Sound Management and Salmon Enhancement Allocation Plan acquaint themselves with the development process we followed as well as the proposal itself. It is our belief that this proposal is the best compromise plan we could develop which is acceptable to the majority of all users.

Prince William Sound/Copper River Regional Planning Team.

Members:

ADF&G	Larry Peltz, Chair; F.R.E.D. Division Ken Florey, Commercial Fisheries Division Tim McDaniel, F.R.E.D. Division Kevin Delaney, Sport Fish Division
PWSAC	John McMullen, PWSAC Board appointee to RPT Armin Koernig, PWSAC Board appointee to RPT Tom Namtvedt, PWSAC Board appointee to RPT
Staff:	Howard Ferren, PWSAC Planner Shelley Tennant, Assistant

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**PRINCE WILLIAM SOUND/COPPER RIVER
REGIONAL PLANNING TEAM REPORT**

MANAGEMENT PLAN

1.00 INTRODUCTION

Regional planning teams (RPT) are established under Alaska State Regulation 5 AAC 40.300 "...for the primary purpose of developing comprehensive salmon plans for various regions of the state." Specific responsibilities outlined under 5 AAC 40.340 call for regional planning teams to:

"...prepare a regional comprehensive salmon plan, for the appropriate region, to rehabilitate natural stocks and supplement natural production, with provisions for both public and private nonprofit hatcheries. Each regional planning team shall consider the needs of all user groups and ensure that the public has had opportunity to participate in the development of the comprehensive salmon plan. Each regional comprehensive plan must define regional production goals by species, area, and time."

The Prince William Sound / Copper River Regional Planning Team (PWS/CR RPT) has prepared this report and attached management plan proposal as a specific assignment under direction of the Commissioner of the Alaska Department of Fish and Game (**APPENDIX 1**). The management plan will become a specific chapter within the Phase 3 PWS/CR Comprehensive Salmon Plan.

Historically, RPT regional comprehensive plans focused on production opportunities. Both the 20 Year Plan and the 5 Year Plan (phase 1 and 2 planning) produced by the PWS/CR RPT presented salmon production opportunities in Prince William Sound and the Copper River drainage basin. Fishery and enhancement objectives established in the 20 and 5 Year Plans have either been achieved or modified.

Reactions at the 1989 Board of Fisheries meeting held in Cordova indicated the salmon fishery had reached a new dimension of development. It was obvious that for the fishery to fully develop, user conflicts over enhanced fish allocations would have to be addressed.

The Board of Fisheries Chair requested that Prince William Sound Aquaculture Corporation (PWSAC), as regional association, develop an "enhanced salmon allocation and harvest management plan" as a foundation for enhanced salmon allocations and a basis for regulatory decisions. Responding to this request, PWSAC developed a corporate allocation policy. This policy was also formally adopted by the PWS/CR RPT and was recommended by PWSAC to the Board of Fisheries to be utilized in their decisions concerning salmon fishery regulations. PWSAC also produced a corporate production plan as directed by the policy which calls for long term planning and production as a means to achieve the allocation balance supported by users of the salmon resource.

In conjunction with the allocation policy and production plan, PWSAC requested the Commissioner consider permitting the PWS/CR RPT undertake this special assignment focused on management planning. This step was necessary for without a long term stable and planned management strategy, the PWSAC production plan could not be implemented to its fullest degree. Hence the goals and objectives mandated by the allocation policy and production plan could not be achieved.

The integration of production, allocation and management was viewed as essential to achieve allocation and production goals and to fulfill fishery development objectives. Specific objectives targeted by the policy and RPT comprehensive plan include:

- * wild stock management;
- * reduced congestion;
- * minimized impacts to historical and traditional fisheries;
- * high quality production, and
- * enhancement of salmon fisheries in underdeveloped or underutilized area and time.

It was with this vision for an integrated plan and comprehensive fishery that the PWS/CR RPT accepted this challenge. This report outlines the steps taken to assure development of the management plan proposed to integrate with production and allocation plans. Adoption of this plan will thereby provide management the regulatory guidelines for managing the fishery in support of the production and allocation objectives.

2.00 WORKPLAN

A seven (7) phase workplan was prepared to carry the project through planning concept to formal proposal and presentation to the Board of Fisheries (February 1991, Cordova, AK.). The project phases included:

1. Orientation to planning process;
2. Develop purpose and goals;
3. Develop data base;
4. Revise draft management plan;
5. Revise second draft;
6. Prepare final draft;
7. Present plan to PWSAC Board of Directors;
8. Present plan to Board of Fisheries.

Throughout the project public opinion was the guiding force for plan development and revision. When concepts of the plan were introduced to the public at the September 1990 PWS/CR RPT meeting in Cordova, public comment helped formulate the project goal.

3.00 GOAL

The integrated planning concept was brought to the floor at the September 20/21 PWS/CR RPT meeting in conjunction with allocation policy, management recommendations and public process discussions. The goal that was formulated and adopted by the PWS/CR RPT states:

"The Prince William Sound / Copper River Regional Planning Team will have developed with assistance from the users of the PWS/CR salmon fisheries, a management plan proposal for PWS for presentation to the Board of Fisheries in February, 1991, so that the BOF will be guided to adopt regulations that will reduce user conflict and allow for the orderly development of salmon enhancement planning and production within the guidelines of the allocation policy."

It is this goal that lead the RPT to completion of the proposed management plan.

4.00 MANAGEMENT PLAN CONCEPTS

Enhanced salmon production in PWS has been remarkably successful. Yet, allocation policy and production plans require expansion of the enhancement effort.

To assure a management environment of stable, long term regulation while providing opportunities for hatchery operations to meet allocation policy objectives, specific PWS *management concepts* are required.

The first formal draft issued by the PWS/CR RPT and publicly distributed outlined these concepts. Specific regulatory language focused on:

1. Management priority for wild stocks.
2. Creation of a Perry Island Subdistrict.
3. Establishment of a migration corridor through the Southwest District prior to mid July for salmon stocks allocated to the gillnet fisheries in the Eshamy and Coghill Districts.
4. Closure of the Coghill District to seining prior to mid July to provide for the allocation of wild and enhanced Coghill sockeyes and enhanced early chums to the drift and set gillnet fisheries.
5. Management for wild or enhanced pink and chum salmon from mid July to the end of the season in the general seine districts and the Coghill District, except that the Esther Subdistrict of the Coghill District will close to seining at the end of August to provide for the allocation of enhanced cohos to the drift gillnet fishery.

5.00 MEETINGS AND PUBLIC PROCESS

During the September 20/21, 1990 PWS/CR RPT meeting held in Cordova, RPT members outlined and discussed with the public the management planning goal and draft concepts. Subsequent RPT meetings were scheduled and a public participation process outlined to secure user input and direct the course of plan development.

Following this first meeting, all Area E commercial salmon permit holders were mailed the draft plan. The Commercial Fisheries Entry Commission (CFEC) mail list was used for distributing the draft. Each mailing also identified subsequent RPT meetings scheduled to discuss the plan. Following each draft revision, a complete mailing was once again conducted.

To assure a broad awareness of the process and developing plan, revisions were also issued to advisory committees, representatives of major PWS/CR communities involved in the PWS salmon industry, fishing organizations, legislators and native organizations (**APPENDIX 2**).

Four (4) additional PWS/CR RPT meetings were scheduled to discuss and revise the proposed management plan. Attendance, user group representation and numbers of users testifying are provided in **APPENDIX 3**.

User groups and advisory committees throughout the region were notified of the process and project. These groups were encouraged to establish meetings to discuss the proposed plan. If meetings were to be scheduled, the PWS/CR RPT requested invitation to allow timely assignment of one or more RPT member(s) to attend the meeting, discuss the plan and bring back group comments concerning the plan.

5.10 SCHEDULED PWS/CR RPT MEETINGS

Five (5) PWS/CR RPT meetings were scheduled between September, 1990, and January, 1991. Meetings were scheduled to coincide with the close of the salmon fishing season, provide ample time between meetings for users to receive mailed drafts and organize travel to subsequent RPT meetings, coordinate around holidays and target the Pacific Marine Expo dates for scheduled RPT meetings in Seattle. The January RPT meeting was scheduled to prepare the final proposal language and distribute it to users well in advance of the Board of Fisheries meeting expected to begin in Cordova on February 9, 1991.

In total, the PWS/CR RPT listen to 81 individuals testifying either on their own behalf or as representatives of fishermen's organizations. The RPT also reviewed 73 written statements received during the course of the project.

Culminating the January 15/16 meeting was a joint presentation by four (4) representatives from fishermen's organizations (**TABLE 1**). This joint testimony provided negotiated positions and language presented in the final plan proposal (**APPENDIX 4**).

TABLE 1

<u>Fishermen Organization</u>	<u>Permit Holders Represented</u>
CDFU SEINERS	81
CDFU GILLNETTERS	194
PW ALLIANCE	170
PWS SEINERS	130

5.20 USER GROUP MEETINGS

In addition to regularly scheduled RPT meetings, RPT members emphasized to user groups that individual RPT members would commit to attending user group meetings if possible, to discuss the draft plan and carry back to the RPT any comments pertaining to plan concepts and/or language. As a result of this commitment, RPT members were able to attend the following meetings:

1. PWS Seiners Association, Cascade Chapter (Sept)
2. CDFU Seine Division (October)
3. CDFU Gillnet Division (October)
4. PWS Setnetters Association (November)

5.30 ADVISORY COMMITTEE MEETINGS

Throughout the planning project advisory committees were informed of the public process and draft plan content. Each draft revision was forwarded to advisory committee representatives. Advisory committees contacted include the Copper Basin, Copper River/PWS, Paxon, Seward, Tok Cutoff/Nebesna Road, Valdez and Whittier Advisory Committees.

During the course of the project RPT representatives were able to meet with the Cordova Advisory Committee (October, January) to discuss the draft plan.

6.00 REVISIONS

Four drafts of the proposed plan were produced as a result of public testimony and written comments. Revisions to the plan adopted at the January RPT meeting were issued as the "Final Proposal" (APPENDIX 4).

7.00 FINAL PROPOSAL

The final plan proposal represents a long term commitment to the PWS salmon fishery by users, producers, planners and managers. The essence of the original

plan concepts are embodied in the western corridor, continued management for wild stocks and negotiated gear groups positions on area and time management.

In context with the regional allocation policy and production plan, the management plan proposal represents the management framework necessary to implement allocation and production strategies.

The public process through which this plan was developed is highlighted for it exemplifies the willingness with which various interest groups are prepared to come to the negotiation table for the long term benefit of the Area E salmon fishery.

For those who have participated there has been a growing understanding and commitment to work towards an integrated fishery. Goals and strategies put in place for allocation, production and management must be designed to achieve the comprehensive effect of fisheries development. Conflict will continue in the presence of indecisiveness and lack of comprehensive and integrated planning.

Users of the resource have worked for 1-1/2 years to tackle an agreement for allocating salmon resources and producing the additional resources necessary to meet the economic and allocation needs of the fishery. This last element, the **MANAGEMENT PLAN**, is required to provide the remaining tool necessary to achieve the regional production and allocation goals.

APPENDIX 1
COMMISSIONER'S LETTER AUTHORIZING ACTION

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

OFFICE OF THE COMMISSIONER

STEVE COWPER, GOVERNOR

P.O. BOX 3-2000
JUNEAU, ALASKA 99802-2000
PHONE (907) 465-4100

September 13, 1990

Larry Peltz, Chairman
PWS/CR RPT
Box 669
Cordova, AK 99574

Dear Mr. Peltz. *Larry*

E.J. Cheshier, Chairman of the Board of the Prince William Sound Aquaculture Corporation (PWSAC), has requested my support and approval to have the Prince William Sound/Copper River Regional Planning Team (PWS/CR RPT) engage in a special project to draft an integrated fisheries management plan covering salmon production, management, and allocation.

Early in 1989, the Alaska Board of Fisheries requested that PWSAC develop an "allocation and harvest management plan" to guide the corporation's program. PWSAC responded by formulating a corporate allocation policy. PWSAC now has initiated a production planning effort that is guided by the allocation policy, both of which must be integrated with a fisheries management plan for Prince William Sound.

The charter for the RPT's includes the authority both for the preparation of a comprehensive salmon enhancement plan for Prince William Sound and the Copper River and the subsequent review of enhancement programs consistent with the plan in the region. In this particular case where planning needs are particularly significant and as requested by PWSAC, I do find that it is appropriate for the PWS/CR RPT to undertake this special purpose planning effort. Guided by public participation, the PWSAC and ADF&G membership on the RPT can contribute to the fulfillment of the Alaska Board of Fisheries' request for an allocation and management plan. The integrated plan which results from the efforts of the RPT will form the basis for a proposal to the Board of Fisheries during the upcoming regulatory meetings. This integrated plan, if adopted by the board, can also provide the basis for an update to the PWS Comprehensive Salmon Plan. Once this update is completed and approved by me, the RPT will be able to use it in reviewing pending enhancement applications.

Larry Peltz, Chairman

- 2 -

September 13, 1990

The PWS/CR RPT may move forward with the assurance that this office supports the integrated planning process in Prince William Sound. This effort satisfies the intent of the Board of Fisheries that PWSAC, the ADF&G, and user groups share in establishment of a production, allocation, and harvest management plan for that region.

Sincerely,



Don W. Collinsworth
Commissioner

APPENDIX 2

PWS/CR RPT MAILING LISTS 1, 2 & 3 (10 OCT 90)

MAILING LIST 1: RECEIVES AGENDAS, MINUTES AND HANDOUTS. (PLEASE BRING PERTINENT DOCUMENTS TO MEETINGS. TO LIMIT EXPENDITURES, DUPLICATES WILL NOT BE PROVIDED.)
ADF&G/PWSAC members, staff, alternates and hatchery managers

Carter, Tony
Clarke, Dave
Delaney, Kevin
Ferren, Howard
Florey, Ken
Henderson, Tom
Jensen, Herb
Koernig, Armin
McDaniel, Tim
McMullen, John
Narntvedt, Tom
Pellissier, Rene
Peltz, Larry
Roberson, Ken
Somerville, Mark
Tennant, Shelley
VanBrocklin, Bob
Whitmore, Craig

MAILING LIST 2: RECEIVES AGENDAS AND MINUTES
Ex Officio Members

Brady, James
Madden, Jerry
McCollum, Paul - VFDA
Schmid, David - USFS
Stratton, Lee - ADF&G
Suzumoto, Bruce - PWSAC
Wedemeyer, Kate - USFS

MAILING LIST 3: RECEIVES AGENDAS
Organizations and Individuals

ADF&G ADVISORY COMMITTEES:

Copper Basin AC - Don Horrell
Copper River/PWS AC - Mike Glasen
Parson AC - Will Luebke
Seward AC - Willard Dunham
Tok Cutoff/Nabesna Road AC - Bill Ellis
Valdez AC - Roy Alley
Whittier AC - Bo Kendall

MAILING LIST 3 CON'T.

CITIES: (MAYORS AND CITY MANAGERS)

Cordova: Bob VanBrocklin, Nancy Gross
Glennallen: (Chamber of Commerce President) Donna Toiiman
Seward: William Noll, Darryl Schaefermeyer
Valdez: Lynn Chrystal, Doug Griffin
Whittier: Georgia Buck, Roger Jenkins

FISHING ORGANIZATIONS:

CAMA -- Bob Blake
CDFU -- Jack Lamb
Chitna Dipnetters -- Byron Haley
Chugach Alaska Fisheries -- Steve Meuter
Cordova Sporting Club -- Ed Zeine
CRFC -- Bill Lindow and James Schomer
North Pacific Processors -- Ken Roemhildt
Peter Pan Seafoods -- Jim Poor
PW Alliance -- Mike Heimbuch (KENAI)
 Dan Lowell (ANCH)
 Kathy Halgren (SEA)
 Steve Little (OR)
 Kent Herschleb (BLLNGHM)
 John Bocci (CDV)
PWS Seiners Assn. -- Dave Clarke
PWS Setnetters Assn. -- Mike Owecke
Sea Hawk Seafoods -- Raymond Cesarini
Seward Fisheries -- Jeff Poole
St. Elias -- Bill Terhar

INDIVIDUALS:

Vining, Len
Woodruff, John

LEGISLATORS:

Rep. Curt Menard
Rep. Gene Kubina
Senator Jay Kerttula
Senator Mike Szymanski

ORGANIZATIONS

AHTNA -- Ken Johns
Blue Star, Inc. - Bill Gleason
Chenega Village Council -- Charles Selanoff
Chugach Alaska Corp. -- Michael Chittick
Cook Inlet RPT -- Tom Walker
Copper River Native Assn. -- Les Southerland
Eyak -- Steve Renberg
Tatitlek Village Council -- Gary Kompkoff

APPENDIX 3

PWS/CR RPT MEETING ATTENDANCE

Meeting Date	User Group					# Testified	Total Signed-in	Written Testimony
	Seine	Drift Gillnet	Dual Permit	Set Gillnet	Other			
Sept. 20/21	* no sign-in sheets were provided at this regular meeting.							
Oct. 24/25/26	6	5	3	2	4	16	20	30
Nov. 15/16	4	6	4	0	3	14	17	17
Nov. 30, Dec. 1	33	44	7	0	6	43	98	--
Jan. 15/16	* See 1/ below.					8	* 1/	26
TOTAL	43	55	14	2	13	81	135	73

1/ Sign-up sheets for this meeting were incomplete. A visual count of the audience indicated 24 attendees.

APPENDIX 4

PROPOSAL

5 AAC 24.3xx. PRINCE WILLIAM SOUND MANAGEMENT AND SALMON ENHANCEMENT ALLOCATION PLAN.

Preamble

Enhanced production of pink salmon contributes as much as 90% of the commercial catch in Prince William Sound. Hatchery production for other salmon species may dramatically increase in the near future with the result being these species may be dominated by enhanced returns as well.

The success of the salmon enhancement program has not been without costs. Historic fisheries have been altered to avoid the overharvest of wild stocks of salmon while attempting to catch large hatchery returns. Conflicts have developed between gear groups by having to fish together in small, crowded terminal harvest areas. Enhancement planning has also suffered due to lack of a management plan that will define a framework for future allocations of enhanced salmon.

The Board recognizes the need to adopt an allocation plan giving clear direction to fishery managers and enhancement planners that will:

- MINIMIZE IMPACTS ON WILD STOCKS
- MINIMIZE IMPACTS TO HISTORIC AND TRADITIONAL FISHERIES WHILE MAINTAINING HISTORIC HARVEST VALUE PERCENTAGES
- PROMOTE THE HIGHEST POSSIBLE QUALITY FISH
- REDUCE CONGESTION IN THE FISHERIES
- MAINTAIN THE DIVERSITY OF USES OF THE SALMON RESOURCES IN PWS INCLUDING SUBSISTENCE, SPORT AND PERSONAL USE

Intent

With these objectives in mind, it is the intent of the Board of Fisheries to allocate the natural and enhanced salmon stocks in Prince William Sound in such a manner as to maintain the long term historic balance between competing commercial users that existed since statehood and prior to any significant production from enhancement programs. It is also the Board's intent to maintain to the maximum extent possible the historic fishing areas and gear types and not allow development of new gear types in non-traditional areas.

To guide future production planning in P.W.S., the Board endorses the ALLOCATION POLICY adopted by PWSAC in May of 1990 and directs both the Department and PNP operators to plan their enhancement production using the policy as a guideline.

By implementation of this plan, the Board recognizes and preserves pink salmon as the primary species of importance to the purse seine gear type in Prince William Sound. It is the intent of this plan to provide an opportunity for development of enhanced returns of early timing chum, sockeye and chinook salmon to the gill net districts of Prince William Sound for the explicit benefit of the gill net gear users. It is also the intent of this plan to provide an opportunity for development of coho salmon returns after August 25th for the gill net fleet. The Board recognizes that enhanced species returning to the gill net districts during the primary seine fishery in western Prince William Sound, (July 18 to September 1st), will be subjected to considerable seine interception and can not be explicitly targeted to the gill net fleet.

The Board recognizes that wild stock management has the highest priority in determination of fishery openings in the general waters of Prince William Sound.

District Management

It is the intent of the Board of Fisheries that the commercial fisheries in Prince William Sound be managed in the following manner:

- 1) **EASTERN, NORTHERN (except Perry Island Subdistrict), SOUTHEASTERN, NORTHWESTERN, and MONTAGUE DISTRICTS:**
 - a. Shall be managed by emergency order for the purse seine fishery with season openings and closures based on traditional management of wild and enhanced stocks. The Board recognizes the importance of flexible management in these areas to protect wild stocks, maximize utilization of hatchery stocks and promote fish quality.
- 2) **SOUTHWESTERN DISTRICT:**
 - a. Prior to July 18: The Southwest District will be closed. During this time period this area will be used as a migratory corridor to permit stocks moving through these waters to reach the gill net fisheries in the Eshamy and Coghill Districts.
 - b. Seines may be operated in the Southwest District on or after July 18 during emergency order fishing periods based upon the strength of the wild pink salmon stocks. The Southwestern District is recognized as containing a mixture of wild and enhanced stocks, many of which are destined for other areas in the Sound. The Department will manage the general waters of this district based upon its assessment of the prevailing wild stock management concerns.
- 3) **PERRY ISLAND SUBDISTRICT of the Northern District:**
 - a. Prior to July 21: The Perry Island Subdistrict will be closed. During this time period this area will be used as a migratory corridor to permit stocks moving through these waters to reach the gill net fisheries in the Eshamy and Coghill Districts.
 - b. Seines may be operated in the Perry Island Subdistrict on or after July 21 during emergency order fishing periods based upon the strength of the wild pink salmon stocks. The Perry Island Subdistrict is recognized as containing a mixture of wild and enhanced stocks, many of which are destined for other areas in the Sound. The Department will manage the general waters of this subdistrict based upon its assessment of the prevailing wild stock management concerns.
 - c. The Perry Island Subdistrict of the Northern District shall be closed concurrently with the Esther Subdistrict when attempting to achieve corporate escapement goals and/or brood stock needs at the Wally Noerenberg Hatchery.
- 4) **ESHAMY DISTRICT:**
 - a. Shall be managed by emergency order for the gill net fisheries based on the surplus of wild and/or enhanced stocks returning to this district.
- 5) **COGHILL DISTRICT:**
 - a. During the salmon season drift gill nets may be operated during all fishing periods established by emergency order in all or any portion of the district.
 - b. Commencing on July 21: purse seines may be operated during fishing periods established by emergency order in all or any portion of the district.
 - c. Commencing on August 25: purse seines may only be operated in the waters of Lake and Quillian Bays during emergency order openings.
 - d. Commencing on September 5: purse seines may only be operated in the waters of Lake and Quillian Bays if the harvestable surplus in this area is predominately pink salmon.

5 AAC 24.200. FISHING DISTRICTS, SUBDISTRICTS AND SECTIONS.

(d) Northern District: waters of the northern mainland shore from Point Freemantle to a point at the southern entrance of Esther Passage at 60°49'22" N. lat., 147°51' W. long., and waters outside of the Coghill district and along the eastern shore of Culross Island and east of a line from a point on the southern shore of Culross Island at 148°8.5' W. Long., N. lat. to a point approximately 1.5 miles west of Nellie Juan Light at 148°8.5' W. Long., N. lat. to the Eshamy District Boundary at Nellie Juan Light, including Glacier Island, Fairmount Island, Perry Island and adjacent islands and the Naked Island group, excluding waters of Unakwik Inlet north of 61°01' N. lat.

(1) Perry Island Subdistrict: all waters of the district west of a line from the western entrance to Eaglek Bay at N. lat. W. Long., to the northern most tip of Axel Lind Island and from the southern most tip of Axel Lind Island to the northern tip of Lone Island, and from the southern tip of Lone Island to the northern tip of the Eshamy District.

(g) Northwestern Districts: all waters south and west of a line from Point Pigot (60°48'15" N. lat., 148°20'47" W. long.) to Point Culross (60°45'37" N. lat., 148°08'37" W. long.) to a point west of Culross Light at 60°45'12" N. lat., 148°07'45" W. long. and from a point on the southern end of Culross Island at N. lat., W. long. to a point approximately 1.5 miles west of Nellie Juan Light at 148°8.5' W. Long., N. lat. to the Eshamy District Boundary at the light on the south shore of the entrance to Port Nellie Juan, including [all waters within one nautical mile of] Culross Passage [Island] and all waters of Culross Bay;

5 AAC 24.368. WALLY NOERENBERG (ESTHER ISLAND) HATCHERY MANAGEMENT PLAN. (a) The department, in consultation with the hatchery operator, shall manage the Esther Subdistrict and the Perry Island Subdistrict to achieve the corporation's escapement goal for the Wally Noerenberg salmon hatchery.

(Draft Management
Policy Attached)

1990/91 BOARD OF FISHERIES BRIEFING DOCUMENT

Title: Policy of the Management of Enhanced Fish

Proposal No. 343

Page 224

Proposed by: Southeast Alaska Seiners

Commercial Fisheries

Division Author: Scott Marshall, Regional Supervisor

Title: Policy of the Management of Enhanced Fish

Proposal 343

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SYNOPSIS

This proposal requests that when hatchery and wild salmon stocks are mixed, management be based on the strength of wild stocks. Deviations from this principal will only be permitted by Board of Fisheries action, for a specific area, if a tagging study has demonstrated that doing so will not: (1) jeopardize conservation concerns for wild stocks; (2) deviate from maximum sustained yield of wild stocks; or (3) re-allocate wild stocks between user groups.

BACKGROUND

The issue of managing commingled wild and hatchery stocks has been of concern for along time. To clarify the department's views on the many complex issues involved, a policy has been drafted (attached). This policy is based upon interpretation of existing statutes, regulations and legal opinions. The department requests the Board to review this policy.

MANAGEMENT ISSUES

At issue is the management of wild and hatchery stocks in near-terminal and mixed stock fishing areas. The concern is that the management policy of the Board or in-season actions of the department will either: (1) over-escape wild stocks to protect hatchery returns; (2) under-escape wild stocks to direct fisheries on hatchery returns; (3) or result in reallocation of wild fish among users. Hence, prior to deviating from a management policy based solely on wild stock escapement needs, a tagging study would have to be conducted which proved that a new management scheme would not result in one of the aforementioned consequences.

There are many management, allocation, technical and legal issues embodied in this proposal. The complexity of these issues makes it difficult to adopt a policy that would govern the Board or department's action in all circumstances. Hence the department's draft policy relies heavily upon review of management options on a cases by case basis rather than establishing inflexible rules.

Title: Policy of the Management of Enhanced Fish

Proposal 343

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This proposal is not consistent with the department's draft policy on management of hatchery returns.

ENFORCEMENT ISSUES

None.

FISCAL NOTE

This proposal requests that tagging studies be conducted as a prerequisite to consideration of altering management for hatchery fish in any area. Costs for such projects could be substantial.

CONCLUSIONS AND RECOMMENDATIONS

- * This proposal is not consistent with the State Attorney General Office's opinion that the Constitution of the State of Alaska mandates both the department and the Board to manage for escapement of brood stock to hatcheries.
- * The department considers existing statutes and regulations governing the management of mixed wild and hatchery stock fisheries adequate. As such the department has proceeded with developing a policy on the subject rather than propose a new regulation. This policy relies heavily upon existing regulatory process to resolve the complex issues raised in this proposal.
- * The department does not support this proposal.

REGULATORY LANGUAGE

The department cannot propose specific regulatory language without direction from the Board.

DRAFT



ALASKA DEPARTMENT OF FISH AND GAME

Statement of Policy on Management of Fish Returning to Hatcheries in Alaska

Background Information

The current fisheries enhancement program in Alaska was designed during the early 1970s to rehabilitate the state's depleted and depressed salmon fisheries. Provisions were made by the state Legislature for two types of salmon hatcheries: those operated by the state and those operated by private nonprofit (PNP) hatchery corporations. These programs share the common goal of contributing salmon to the common property fisheries. However, the state hatchery program was to be financed by bond issues and appropriations from the Legislature, while the PNP hatchery program was to be self-supporting with a unique financing mechanism called cost recovery. PNP hatchery operators were allowed to harvest and sell a portion of the salmon that returned to a designated Special Harvest Area (SHA) to recover the cost of building and operating the hatchery.

PNP hatcheries have received a significant amount of public funds, principally in the form of loans from the Fisheries Enhancement Loan Fund established under AS 16.10.505. Until fish released by PNP hatcheries return to a location where they can be harvested by the hatchery operator, these fish are available to the people for common use and are subject to regulation under applicable law in the same way as fish occurring in their natural state [AS 16.10.440 (a)].

Normally, a fully developed hatchery will be able to maintain survival rates that will assure a return of enough salmon to the hatchery to at least meet broodstock requirements, defined as the number of fish required to meet the operational egg capacity of the hatchery. In situations where a hatchery is in the process of developing broodstock, additional fish, provided through management actions in the common property fisheries, may be necessary to ensure the success of the facility. Hatcheries located in areas where commercial fisheries operate adjacent to the SHA may have harvest rates on returning fish that are high enough to jeopardize brood stock and cost-recovery requirements. Hatcheries that are experiencing relatively poor marine survival may not be able to obtain even enough broodstock under the rates of common-property exploitation applied to wild stocks in the area.

DRAFT

In these situations, the Alaska Department of Fish and Game (ADF&G) could be asked to manage fisheries in ways that will allow escapement of additional fish to the hatchery. In the case of state-operated facilities, the additional escapement would be for broodstock; for PNP facilities, both broodstock and cost-recovery escapement may be needed. The manner in which management will occur for (1) broodstock and (2) cost recovery, under different sets of circumstances, must be clearly understood by hatchery operators, fishermen, fishery managers, state policy makers, and the general public.

The Need for Policy

A departmental policy is needed to clarify the role of the department's fishery managers in the management of common-property fisheries for escapement of hatchery fish to provide broodstock and cost recovery for PNP hatcheries, and broodstock for state-operated facilities. A policy is also necessary to explain to the public the respective roles of the department and the Alaska Board of Fisheries in this process.

Public interest and legislative intent are served when hatchery contributions to common-property fisheries are maximized, and when hatchery harvests are concurrently achieved such that they allow the hatchery operators to continue or expand their salmon production capabilities and services in a reasonable manner consistent with the regional comprehensive plan for that area.

The considerations for managing for a hatchery's broodstock and cost-recovery needs in terminal, near-terminal, and mixed-stock fishing areas are different. The following statements of policy are based on approaches to management in these different geographic areas.

Statements of Policy for Management of Hatchery Fish

Fish released into the natural waters of the state by a hatchery operated under AS 16.10.400-470 are available to the people for common use and are subject to regulation under applicable law in the same way as fish occurring in their natural state until they return to the specific location designated by the department for harvest by the hatchery operator. Management for hatchery broodstock is the same as management for wild stock spawning escapement. The State Attorney General's Office has issued an opinion finding that the Constitution of the State of Alaska mandates both the ADF&G and the Alaska Board of Fisheries to manage for escapement of broodstock to hatcheries. The policy of ADF&G has always been to do so (see Statement of Policy on Permitting Nonprofit Salmon Hatcheries in Alaska, October 3, 1974). The following policy statements, however, refer to management for both broodstock and cost-recovery.

1. Terminal or Hatchery Special Harvest Areas

Terminal harvest areas are areas where the returns to the hatchery are segregated from wild stocks sufficiently so that harvesting of the hatchery stock can occur with no appreciable catch of wild stocks. A portion or all of the terminal harvest area may be included in a PNP hatchery's special harvest area (SHA) where all of the returning salmon are available for brood stock and/or cost recovery. Broodstock and cost-recovery needs are to be documented in the annual management plan (AMP) for the hatchery.

- (a) Inside the terminal harvest area, the department will manage the hatchery return in a manner that allows the hatchery to reach broodstock and cost-recovery goals set forth in the AMP to the extent sufficient numbers of fish are available.

2. Near-Terminal Areas

Near-terminal areas are located immediately adjacent to the terminal harvest areas to which hatchery fish are returning. These areas are often transited by natural stocks, as well as the stocks destined for the hatchery release site. However, the degree to which the stock composition is mixed is highly variable and usually unknown. The legal commercial gear for use by common-property fishermen in the near-terminal area is usually the same as that used in the adjacent hatchery terminal area or SHA. When developing a plan that includes the management of a near-terminal area for the purpose of providing escapement of hatchery salmon into a terminal area, the department will proceed as follows:

- (a) The department will manage the hatchery return in a manner that allows the hatchery to achieve its broodstock needs in the same manner that it manages near-terminal fisheries to ensure spawning escapement of wild stocks. When restrictions of historic wild stock fisheries are required to achieve broodstock for a hatchery, the department will restrict time, area, and/or gear to the least extent possible.
- (b) In situations where adequate temporal or spacial separation of hatchery stocks from wild stocks does not exist, the hatchery operator may be required to establish a departmentally approved, operator-funded, mark or tagging program before restrictions of historic fisheries are initiated.
- (c) Restrictions in historic wild stock fisheries to provide broodstock will be made only if a reasonable expectation exists that foregone harvests of wild and hatchery stocks will be more than compensated for by increased future returns from the hatchery facility. Consideration of established performance standards for hatchery operations will be a factor in this determination.

(d) If a hatchery operator needs a near-terminal area managed to provide fish for cost-recovery purposes in addition to broodstock, a proposed management plan for the area must be submitted by the operator to the Board of Fisheries for its determination. The board, through review of available data on the performance of the hatchery, including its contributions to potentially affected fisheries, the hatchery's management plan, and comments and testimony from the public, will determine if the proposed management plan is in the best interest of the state. Through this process, the board may identify alternative management strategies to assist the hatchery in meeting its goals. These strategies might include directing ADF&G, through regulation, to manage for cost recovery harvest.

3. Mixed-Stock Fishing Areas

For some hatcheries, a major portion of their contributions will be to common-property fisheries that operate at some distance from the hatchery. Traditionally, these fisheries have been directed toward the harvest of wild stocks. The contribution of an individual hatchery's production to a distant mixed-stock fishery may be significant but, depending on a number of factors, may represent a highly variable portion of the total catch in the fishery. The actual contribution must be verified using a departmentally approved, operator-funded mark or tagging program. If a significant contribution to the common property fisheries is verified by data from catch sampling, management options to achieve an adequate broodstock or cost-recovery harvest may be proposed to the department and the Alaska Board of Fisheries by the hatchery operator. Based on catch data, the Alaska Board of Fisheries could then determine the appropriate management option, if any, to be used.

The alteration of a fishery to provide additional escapement into a distant, terminal area can have many effects, including: altering allocations among gear groups; causing a portion of the harvest normally taken in an area to go unharvested due to lack of later, more terminal harvest opportunities; and disadvantaging fishermen within the user group that traditionally fish in the affected area. Obviously, the effects of management to increase returns to a hatchery in a major mixed-stock fishing area will vary considerably in different situations, and no standard approach can be developed. In almost all instances where management actions to increase hatchery escapement are proposed, some allocative impacts or fishery restructuring will be necessary. The department will proceed as follows in these situations:

(a) Board of Fisheries consideration of any proposed management plan will be required in these situations. The board, after reviewing all available data regarding hatchery contributions in potentially affected fishing areas, taking into consideration comments and testimony from the public, and weighing the effects and tradeoffs created by implementing the proposed management action, will determine if the proposed action, or an alternative action, is appropriate and in the state's best interest.

(b) It is imperative, especially in mixed-stock situations, that a clear understanding of the

DRAFT

contribution of hatchery fish to affected fisheries be available to those who are developing management plans. The department will assist hatchery operators to obtain this information, within the limits of personnel and funding availability dedicated to this activity. Regional Planning Teams, with assistance from the department and hatchery operators, should work to determine where, in each region, the priority for tagging efforts should be placed.

Adoption of Policy

This policy is approved by:

Brian J. Allee **Date**
Director
Division of Fisheries Rehabilitation,
Enhancement and Development

Denby Lloyd
Director
Division of Commercial Fisheries

Norval Netsch
Director
Division of Sport Fisheries

Ron Somerville
Deputy Commissioner
Alaska Department of Fish and Game

Carl L. Rosier
Commissioner
Alaska Department of Fish and Game

SUGGESTED TOPICS FOR HATCHERY ISSUES MEETINGS

To: Mary McDowell
From: Kate Troll — S.E. Alaska Seiners Association
Re: Backup Information for Hatchery Hearing

In my conversations with Jim Brooks, former ADF&G Commissioner, and Rick Lauber, industry lobbyist, and in my investigations into old records, I have determined that the context of hatcheries has changed dramatically since the enabling legislation was passed in 1974. Here is a summary of my more significant findings:

- * The PNP Hatchery Program was spawned as a vital part of the Salmon Fisheries Rescue Plan. As you know, in the earlier seventies, salmon stocks were stressed and depleted in many areas of the state. A five point plan for improving the drastically reduced Alaskan salmon resource included: Management, Rehabilitation, Enhancement, Development Research, and Habitat Protection.

- * Enhancement was then defined as "an effort to add large quantities of fish to the fishery by establishing permanent production facilities under acceptable ecological conditions. Ideally, and ultimately, enhancement will use special "hatchery" stocks, genetically evolved for that purpose. Returns will be harvested except for hatchery brood stock needs". (1975 Statewide Salmon Management Plan)

- * The notion of harvesting for cost recovery was dismissed, because it was thought that the PNP's would be controlled by the regional associations and they would have the 3% enhancement tax revenues to cover costs.

- * At the time of the enabling legislation, Commissioner Brooks claims that he preached a wild stock management priority. In his opinion the legislation and the PNP's would have not gone anywhere if there was not a management priority on wild stocks. In fact, Commissioner Brooks signed a Statement of Policy on Permitting Nonprofit Salmon Hatcheries in Alaska in Oct. '74 which affirmed this priority. I quote:

"If complexities arise in managing mixed stocks, including both hatchery fish and wild fish, it will be State policy to manage the collective resource in a manner that favors protection of the wild stocks."

The role of hatcheries has changed dramatically over the years. Now we have PNP hatcheries funded not as a means to rescue our salmon stocks but as a means of contributing to fishermen and private economic development. Now we have regions so dependent on hatchery stocks that wild stocks are threatened. Now we have thriving wild stocks in many regions of the state and hatchery contributions are negligible (See Enclosed Table). Now we have hatchery production affecting the market in terms of quality and quantity. This change of context sets up a lot of questions. Some of these questions can be answered by re-examining the legal and management fundamentals of Alaska's intiation into hatcheries. Some of these questions can only be answered by new research and analysis leading perhaps to new legislation on hatcheries. Here is how some of the questions and tasks break out:

LEGAL AND POLICY

- * Should State laws on hatcheries apply to all hatchery and enhancement activities, not just private non-profit (PNP) hatcheries?
- * Should marking and/or tagging of hatchery fish be statutorily required?
- * Should PNP's that receive "x" amount in state financing be required to have all gear groups equally represented or have some overview by regional associations?
- * Substantial public benefit needs to be better defined for purposes of performance evaluations of PNP's. Possible options include:
 - a sliding scale of contribution to the common property fishery dependent on the amount of broodstock or finances obtained from the State
 - the estimated contribution to the common property fishery included in the loan applications
 - an average contribution for hatcheries in the region
 - the contribution goal established by regional associations
- * Should the State statutorily recognize a responsibility to manage for hatchery broodstock (only for broodstock taken prior to cost recovery activities) at the same time recognize that management of state owned fish take priority? Should this responsibility for broodstock be triggered by performance of substantial public benefit?
- * There is a conflict of interest created by the fact that the bank and manager of the resource to repay the bank are one and the same...the State of Alaska. Should there be some form of protection or recourse for the fishermen?
- * Could the Prince William Sound example of the Board of Fisheries' modification of wild stock harvest opportunities be incorporated into regulation i.e. modification done on the basis of solid tagging data and at the request of the regional association or all gear groups?

MANAGEMENT

- * Could Regional Salmon Plans be expanded to develop a Statewide Salmon Plan so that there is a statewide perspective of overall hatchery production? Could this review be done by fishermen representatives from the different Regional Associations?
- * Can a performance review of existing PNP's in relation to their contribution to the common property fisheries be conducted? If yes, should such a review occur?
- * Given the regional differences should there be regional hatchery stock management policies or one for the entire state? Could this policy differentiate how management for hatchery broodstock, with a wild stock priority, could occur in terminal areas, near terminal areas and mixed stock fisheries?
- * Is there a standing management policy that historical fishing opportunities on wild stock will not be altered for hatchery needs unless directed otherwise by the Board of Fisheries? Would this be ample protection for fishermen in regards to the conflict of interest referred to above?

ECONOMIC

- * Is the current system of providing for cost recovery only in the terminal areas sufficient to assure loan re-payment? For what hatcheries is this sufficient?
- * Is there a threshold production capacity relative to loan amount that affects the PNP hatcheries' ability to re-pay the loan amount?
- * How many PNP's are defaulting on their loans? How many are regional PNPs?
- * Are any of these defaulting PNPs defaulting because harvest pressure exceeds the amount estimated on their loan application? Is there tagging information to confirm what is being harvested in the common property fisheries?
- * What is the status of the Revolving Loan Fund?
- * What is the market impact of current and proposed levels of pink salmon hatchery production?
- * Is there a market/quality impact from hatchery fish harvested in the terminal areas or near terminal areas? If yes, to what degree?
- * Has the amount of cost recovery fish on the salmon market affected fishermen? If yes, to what degree?

BIOLOGICAL

(answers to these questions will involve substantial research or inference from applicable research in Washington and Oregon)

- * Has hatchery fish negatively affected the genetic viability of wild salmon stocks?
- * Has hatchery production negatively affected the population viability of any wild stocks?
- * Is the current production of hatchery and wild stocks taxing the near shore or offshore carrying capacity? (The multi-million dollar research question)

Ultimately answers to these questions will help legislators and administrators answer these "big picture" questions:

THE BIG PICTURE

- * Does the State of Alaska want to continue to foster more hatchery development in light of 1) the altered role of hatcheries, 2) market implications of hatchery production and quality, 3) management's history of managing with hatchery stocks 4) status of the Revolving Loan Fund and State finances and 4) growing biological concerns?
- * If yes, how should the state proceed to minimize conflicts with the management and harvest opportunities on wild stocks?
- * If no, how should the State limit the program while assuring the viability of those hatcheries on line?

Alaska Department of Fish and Game- FRED Division							
Alaskan Enhancement- Common property harvest of enhanced fish (in thousands)							
4/12/90: M. McKean							
Year Area	Harvest	Chinook	Sockeye	Coho	Pink	Chum	Total
1990 Southeast	Total Commercial	832	2,138	2,664	31,188	1,884	38,201
	-Cost Recovery	22	0	117	888	337	1,465
	Adj Comm total	310	2,138	2,548	30,100	1,547	36,733
	Enhanced	88	110	344	499	408	1,399
	% Enhanced	12.0%	5.2%	10.0%	1.7%	20.4%	3.8%
Prince William Sound	Total Commercial	22	912	524	44,165	967	46,591
	-Cost Recovery			17	8,858	32	8,907
	Adj Comm total	22	912	507	35,307	935	37,663
	Enhanced	0	160	201	25,199	612	26,172
	% Enhanced	1.1%	16.4%	39.7%	70.0%	65.3%	77.4%
Cook Inlet	Total Commercial	18	3,807	503	988	358	6,670
	-Cost Recovery		0	8		1	9
	Adj Comm total	18	3,799	495	988	357	6,667
	Enhanced	2	404	9	167	48	630
	% Enhanced	8.5%	10.6%	1.8%	17.0%	13.4%	9.2%
Kodiak/Chignik/ Aleut AK Peninsula	Total Commercial	54	12,093	875	10,124	2,177	25,323
	-Cost Recovery						0
	Adj Comm total	54	12,093	875	10,124	2,177	25,323
	Enhanced		2,291	7	502	4	2,895
	% Enhanced	0.0%	18.9%	0.8%	5.0%	0.2%	11.4%
Bristol Bay	Total Commercial	83	53,188	100	817	1,008	54,822
	Enhanced	0	0	0	0	0	0
	% Enhanced	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Arctic/Yukon/Kuskokwim	Total Commercial	189	205	532	17	1,138	2,078
	Enhanced	0	0	0	0	5	5
	% Enhanced	0.0%	0.0%	0.0%	0.0%	0.4%	0.2%
1990 Total	Total Commercial	647	52,317	5,190	86,994	7,631	152,667
	-Cost Recovery	22	0	141	8,846	370	10,380
	Adj Comm total	625	52,308	5,049	77,148	7,161	142,292
	Enhanced	40	2,555	582	29,454	1,077	34,087
	% Enhanced	6.4%	5.0%	11.1%	33.8%	14.0%	24.0%

Note: Cost recovery numbers have been subtracted out to provide a common-property harvest figure.



Prince William Sound Aquaculture Corporation

P.O. Box 1110
Cordova, Alaska 99574
Phone: (907) 424-7511
Fax: (907) 424-7514

May 14, 1991

Honorable Richard Eliason, President
Alaska State Senate
P.O. Box V
Juneau, Alaska 99811

The salmon fisheries enhancement program of Prince William Sound has benefited from the support of the fishermen of all gear groups. This support was demonstrated during the February, 1991 meeting of the Alaska Board of Fisheries. There, leaders of all the Prince William Sound fishermen's organizations testified in favor of the Prince William Sound salmon management plan, which will provide for the present and future allocation of specific hatchery stocks to specific gear groups and hatchery needs. I believe the Board of Fisheries' action follows the statement included in footnote number 5 of Assistant Attorney General Stephen White's August 1, 1990 opinion regarding ADF&G authority to manage fisheries for hatchery brood stock and cost recovery. That footnote says in part, "Finally, the board could by regulation establish an allocation framework that the department could implement through emergency orders."

In past years, Prince William Sound Aquaculture Corporation's (PWSAC) enhancement efforts were directed largely at pink salmon and the seine fishery, which led to a 1989 confrontation of the gear groups before the Alaska Board of Fisheries. At that time, the Board requested that PWSAC resolve the enhanced salmon allocation issues through the public participation process. Throughout the following year, a planning team developed an allocation policy which expresses PWSAC's intent to bring the seine and gillnet fisheries into balance, over time, through species diversification at its hatcheries. Concurrently, the Regional Planning Team, of ADF&G and PWSAC membership, followed the intent of the allocation policy in developing the salmon management plan which was adopted by the Board of Fisheries in February.

The Main Bay Hatchery and it's developing sockeye salmon program are of prime importance to gillnet fishermen, to who the sockeyes are allocated by the Board of Fisheries. In addition, fish sales at the hatchery must provide operational funds for the Main Bay and

the Gulkana Hatcheries, both which will be transferred from the state in the near future.

PWSAC's salmon production plan provides for pink, chum, and sockeye salmon. These increases will occur over an extended period of time. As an example of time requirements, the transfer and conversion of the Main Bay Hatchery in 1991 and 1992 will not result in increased sockeye catches until 1996. Production increases will be based on the ongoing evaluation of enhancement results as determined by PWSAC, the ADF&G, and the University of Alaska Fairbanks.

The salmon enhancement programs in the state are coming under review for several completely different reasons. In Prince William Sound, where the environment has become an issue as a result of the Exxon Valdez oil spill, ADF&G biologists are wondering if the enhancement program is overpowering the wild stocks. Present studies have not revealed any problems, but we are prepared to expand these studies, as necessary.

The northern and southern aquaculture associations in Southeast Alaska do not enjoy the support of some fishermen's organizations, for a number of valid and invalid reasons. Fishermen in Southeast Alaska pay an enhancement tax on all salmon caught in the region. Funds generated by the tax have been incorrectly distributed to the aquaculture associations based on landings within the geographical boundaries of each aquaculture association rather than the catches of wild and hatchery fish produced in each area. This inequity will be difficult to correct because the cape fisheries in Southeast Alaska harvest salmon which are migrating to distant streams.

The canned salmon industry appears to be in favor of the status quo in the fisheries at a time when sales of foreign produced salmon are on the rise in the U.S.A. and elsewhere. In this regard, we are hearing industry people say that regional caps should be placed on the salmon fisheries. In contrast, we believe that regional production should be allowed to be market driven, provided that wild stocks are adequately protected. PWSAC, for example, would produce only those fish that fishermen could sell.

Recently, it was stated that the aquaculture program in Alaska is at a crossroad. While it is reasonable that the successes and failures of aquaculture in Alaska should be examined with course corrections in mind, I believe the real issue is the salmon fishery in Alaska and whether it will be allowed to develop and diversify. We believe that new products - at reasonable prices - will benefit the salmon industry at this time when many other major fisheries resources in Alaska are depleted or in decline.

Many people have questioned PWSAC's proposal that foreign processors be allowed to operate in Alaska waters in 1991 if the Governor determines that a surplus of salmon exists. We consider foreign processors to be a last option to be used only if fish

would otherwise be wasted. PWSAC supports obtaining the best price possible for fishermen, and will sell its fish in a manner determined by its marketing committee, composed of fishermen.

Some of the marketing committee members also contribute to the Prince William Sound Harvest Management Task Force which is made up of ADF&G fishery managers, fishermen, processors, and aquaculture staff (see attachment). This group develops a common understanding of the manner in which the fishery will be managed each year, based on wild stock needs, enhanced salmon returns, and the need to maintain quality of harvested fish.

While PWSAC is pursuing new domestic marketing opportunities, we are hopeful that the legislature will continue to support the concept of economic development in the fisheries, including the salmon program in Prince William Sound.

We wish you well in your legislative endeavors.

Sincerely,



John McMullen
Special Projects Manager

cc: Senator Kerttula
Senator Menard
Representative Kubina
Representative Ulmer
E.J. Cheshier, Chairman, PWSAC Board
Bruce Suzumoto, President, PWSAC

P.W.S. SALMON HARVEST TASK FORCE - BYLAWS

COMPOSITION OF TASK FORCE

The following are the recognized seats composing the task force.

CDFU - Gill Net Division President
CDFU - Seine Division President
PWS Seiner's Association, President
Prince William Alliance, President
PWS Set Net Assn., President
PWS Fish & Game Advisory Committee, Chairman

Chugach Fisheries
North Pacific Processors
St. Elias Ocean Products
CRFC
Seahawk Seafoods
Peter Pan Seafoods
Seward Fisheries

PWSAC, President
Valdez Fisheries, President

Alaska Department of Fish and Game, Comm Fish., Area Biologist

Alaska Seafood Marketing
Alaska Dept. of Environmental Cons.

AUTHORITY OF TASK FORCE

The SHTF has no authority of its own, but is recognized by the Commissioner of ADF&G as a strong body representing the commercial fishing industry in the Prince William Sound management area. The SHTF can make recommendations to the Department on fisheries management plans.

CONDUCT OF SHTF MEETINGS:

- 1.) All meetings will be chaired by the ADF&G Area Biologist unless the chair is delegated to another individual.
- 2.) An agenda will be prepared prior to each meeting and distributed.
- 3.) Minutes will be kept of each meeting, and a written transcript of these minutes will be distributed to all members. The central files of meeting minutes and related materials will be maintained by ADF&G.
- 4.) All discussions during meetings will be addressed to the chair. The chair may or may not, at his/her discretion recognize general public comments or input pertaining to task force business.
- 5.) All recommendations adopted by the task force will be agreed to by unanimous consent.

PROTOCOL FOR CALLING SPECIAL SHTF MEETINGS:

- 1.) An individual or organization that wishes to call a special meeting of the SHTF must identify the need for a meeting and obtain the consensus of ___ members.
- 2.) It is the individual's or organization's responsibility to clarify the concern or problem for other SHTF members and ADF&G. This may require special meetings of CDFU, PWSSA or whom ever, to condense the area of concern to an identifiable proposal.
- 3.) It is the individual's or organization's responsibility to schedule the meeting and notify SHTF members of the proposed meeting and distribute copies of the proposal.

CONDUCT OF SPECIAL SHTF MEETINGS:

- 1.) All meetings will continue to be conducted in the same style as previously developed for the SHTF.
- 2.) The individual or organization whom is championing the proposal to be discussed holds the responsibility to do the following:
 - a. Schedule meeting room.
 - b. Prepare an agenda for the meeting and handouts of the proposal to be discussed.
 - c. Pass out sign up sheet for attendance.
 - d. Record minutes of the meeting.
 - e. Write up minutes of the meeting (subject to one review by ADF&G), and distribute to the SHTF members no later than two weeks following the meeting.

PRINCE WILLIAM SOUND AQUACULTURE CORPORATION
TRANSFER OF STATE SALMON HATCHERIES TO THE PRIVATE SECTOR

FEBRUARY 28, 1991

The public and private salmon enhancement programs which the Alaska State Legislature created in the early 1970's found willing and eager constituencies in the Prince William Sound and Copper River Region. As a result, the State built and operated the Cannery Creek, Main Bay, and Gulkana hatcheries in the Region, the Prince William Sound Aquaculture Corporation developed the Armin Koernig and Wally Noerenberg hatcheries, and the Valdez Fisheries Development Association added the Solomon Gulch hatchery to the Sound's salmon enhancement program.

Following the passage of state legislation which authorized the transfer of state owned hatcheries to private non-profit aquaculture associations, the Prince William Sound Aquaculture Corporation (PWSAC) contracted with the state for the operation of the Cannery Creek Hatchery. Since 1988, when PWSAC began operating that hatchery, about \$2.5 million has been invested in capital improvements there. Nearly \$1 million of that amount was obtained through a state loan with full knowledge that those improved facilities become the property of the state.

PWSAC funds Cannery Creek's annual operating budget of over \$850,000 per year, freeing the state from that obligation.

The state operates two sockeye salmon hatcheries in the Prince William Sound Area. One is located in Main Bay, near Whittier, and the other being located near Paxson, on the upper Copper River system.

In 1990, the Governor vetoed the FY-91 operating budgets of the Main Bay and Gulkana Hatcheries. PWSAC was immediately asked to assume responsibility for those hatcheries, the alternative being that they would close. Although PWSAC was denied the opportunity to plan for such an event, negotiations were begun on effecting the transfers, or at least PWSAC's assumption of financial responsibility for the two hatcheries.

The transfer of the Main Bay Hatchery began in the fall of 1990. PWSAC began drawing from its existing staff to operate the hatchery. Concurrently, negotiations asking for a delay in transferring the hatchery resulted in the state's agreement to operate Main Bay Hatchery in FY-91 on a deficit budget, which is included in a supplemental request now before the legislature. At this time, February, 1991, the hatchery is jointly operated. State personnel are responsible for the physical facility and PWSAC personnel are responsible for the fish production program.

The state would not operate the Gulkana Hatchery on a deficit budget in FY-91. Hence, PWSAC granted the state about \$332,000 for its operation this year.

The Main Bay and Gulkana Hatcheries, once removed from the FRED Division's base budget, were not reinstated for FY-92. The PWSAC Board of Directors, recognizing the importance of the Main Bay Hatchery for the achievement of equitable commercial seine and gillnet fisheries of the Sound, as provided for by the Alaska Board of Fisheries at its February, 1991 meeting, voted to work toward the

transfer of Main Bay Hatchery to PWSAC by July 1, 1991. At the same time, the Board agreed to continue operational funding for the Gulkana Hatchery prior to transfer in 2 or 3 years.

The Main Bay Hatchery has the potential for PWSAC fish sales for the purpose of cost recovery. However, the hatchery was not built to produce sockeye salmon as it is now doing, so must be modified to fully use the present facility. We are told that the state is in favor of placing hatcheries in acceptable, cost recovery, operating condition upon transfer.

We believe that our proposed \$5.9 million project which would increase the efficiency and capabilities of the Main Bay Hatchery is one which warrants funding through a direct grant.

Modification of the Main Bay Hatchery is a project which should be coupled with the full development of that facility. The water source at Main Bay is sufficient to provide for the hatchery's expansion to produce about 4 million adult sockeyes per year, at a value of over \$40 million. The hatchery expansion project for which PWSAC has already obtained a 35% design, is estimated to cost about \$13.5 million. The great importance of Main Bay's sockeye program has PWSAC in the search for construction funds.

The Gulkana Hatchery has no facilities within which to rear the sockeye fry it produces. Therefore, about 28 million unfed fry are stocked in tributary lakes each year, where 93% die before the remainder begin their migration to the ocean. A \$400,000 investment in rearing facilities would result in the increase of fry survivals in lakes from the present 7% to an estimated 20%, with similar increases in adult returns to the commercial, subsistence, sport, and personal use fisheries of the Copper River. PWSAC requests that funding for this project be made available as a direct grant.

The Cannery Creek Hatchery complex was in need of major modifications when transferred to PWSAC in 1988. Although having spent about \$2.5 million in capital improvements there, PWSAC has determined that an additional \$2.3 million in improvements and modifications are necessary to properly operate and care for the facility, which would then produce an added \$2.7 million worth of salmon each year. PWSAC requests that funding for this project be made available as a direct grant.

State administration spokesmen have said it might be appropriate to provide interim operational funds for hatcheries which are transferred but are not yet capable of supplying cost recovery revenue to the contracting associations. The PWSAC Executive Committee believes that operational funds for the Main Bay and Gulkana Hatcheries should be budgeted internally, and should not be requested as a grant from the state. This opinion recognizes that the Gulkana Hatchery probably has no cost recovery potential, but must be supported with funds from the sale of fish which would otherwise be allocated to the commercial fisheries, because Gulkana sockeyes are valued by the fishery users on the Copper River.

REGULATIONS GOVERNING THE ALASKAN PRIVATE NON-PROFIT HATCHERY PROGRAM

By John McMullen, Special Projects Manager

Have you wondered how Alaska's non-profit salmon enhancement program originated, and what limitations are placed on the activities of organizations such as the Prince William Sound Aquaculture Corporation? If so, you should be interested in this summary of the pertinent regulations, and the precautions taken by the State of Alaska to ensure that proper planning precedes the approval of each and every salmon enhancement project in the state.

Alaska state law in 1974 authorized private ownership of salmon hatcheries by qualified non-profit corporations for the purpose of contributing, by artificial means, to the rehabilitation of the state's depleted and depressed salmon fisheries. The group of local commercial fishermen who formed the Prince William Sound Aquaculture Corporation (PWSAC) as a private non-profit corporation in 1974 immediately applied for and received a hatchery permit under this state statute.

In addition to state statutes, private aquaculture corporations in Alaska must comply with the requirements of permits, policies, and procedures of the **Alaska Department of Fish & Game**, which includes the **Alaska Board of Fisheries** and the **Regional Planning Team (RPT)**. The ADF&G Commercial Fisheries Division also manages the salmon which return to the hatcheries, including brood stocks.

The **Alaska Board of Fisheries** allocates wild and hatchery salmon stocks to user groups, including hatcheries. In February, 1991, the Board adopted a salmon management plan for Prince William Sound, which provides for the long-term balance of the seine and gill net fisheries.

The **Regional Planning Team (RPT)**, which is composed of ADF&G and PWSAC representatives, is responsible for the development of a regional comprehensive salmon plan which defines salmon production goals by species, area, and time. The management plan adopted by the Board of Fisheries provides for the implementation of this regional comprehensive plan.

The RPT also reviews applications for hatchery permits, and requests for alterations in the production at existing hatcheries; its recommendations are forwarded to the ADF&G Commissioner.

ADF&G FISHERIES POLICIES

Several policies guide the development and ADF&G approval of hatchery basic and annual management plans, hatchery permits, permit alterations, and fish transport permits. These include specific policies regarding genetics, fish disease, fish stocking and fish transport.

The Genetics Policy protects the genetic integrity of important wild stocks and increases productivity of enhancement programs through brood stock selection and defined egg-take procedures.

ADF&G's Fish Disease Policy is a series of regulations that prevent dissemination of infectious diseases within or outside the borders of Alaska through diagnosis of wild stocks intended for hatchery use, and through utilization of disease prevention and treatment measures in hatchery stocks. Alaska is a leader among states with its fish disease prevention and treatment program.

The Fish Stocking Policy protects wild stocks as a first consideration in managing enhancement programs.

The state's Fish Transport Policy prohibits possession, transport, or release of live fish into the waters of the state without a permit issued by the ADF&G Commissioner. The permit holder must be in compliance with the conditions of the permit.

HATCHERY PERMITTING PROCESS

A hatchery permit application is submitted to the analysis of the Department of Fish and Game, and reviewed by the Regional Planning Team. The RPT then makes a recommendation to the ADF&G Commissioner, who alone may grant the permit to build and operate a hatchery.

Management Feasibility Analysis of a Proposed Hatchery: The ADF&G staff determines the desirability and compatability of the proposed production with existing fisheries, and may provide recommendations to assist hatchery permit applicants.

Review of Applications for Permits and Permit Alterations: The Department has the responsibility to assess the technical feasibility of the proposed operations. It also estimates the impacts of hatchery production on wild stock management.

The Regional Planning Team also has responsibilities. The RPT must determine the compatability of proposed operations with the goals of the Regional Salmon Plan. Also, the RPT determines if the proposed operations provide protection for wild stocks.

In addition, the RPT must provide for public comment on the proposals, then forward its recommendations to the ADF&G Commissioner. The hatchery permit applicant, in collaboration with ADF&G staff, must then develop a basic management plan -- an overview plan for hatchery production and for the management of returning fish. The basic management plan is presented at a public hearing, which provides guidance for the Commissioner's decision to issue a hatchery permit.

HATCHERY OPERATIONS AND REVIEW

Once a hatchery is operational, it must submit an **annual management plan** to the Department of Fish and Game. The plan must describe the annual production goals of the facility, and contain a statement of the number of returning fish needed for brood stock and cost recovery.

The hatchery management plan is prepared jointly by ADF&G and the hatchery operator, and requires the approval of the ADF&G Commissioner.

A **hatchery permit alteration** is required for changes in planned production or release locations of hatchery fish. Approval is based on past performance of the hatchery, and compatibility of the change with wild stock protection and the fishery management program. Each hatchery permit alteration must be approved by the ADF&G Commissioner.

A **hatchery performance review** is a process in which the ADF&G reviews hatchery operations to ensure adequacy of all phases of hatchery production, ranging from brood stock development to hatchery contributions in the fisheries.

Standard performance measures for egg and fish survivals in hatcheries are used to evaluate adequacy of fish culture methods.

EVALUATION OF PWSAC ENHANCEMENT PROGRAM

PWSAC cooperates with ADF&G and the University of Alaska Fairbanks to evaluate, through fish tagging and oceanographic studies: (1) ocean survival of hatchery fish, (2) performance of hatchery fish in the fisheries, (3) interactions between wild and hatchery salmon, and (4) utilization of food sources available to juvenile salmon.

Program evaluation will be the subject of an article in a later edition of the Sound Quarterly.

REGIONAL PLANNING TEAM CHARTER
COMPREHENSIVE SALMON PLANNING
ALASKA DEPARTMENT OF FISH AND GAME

THE REGIONAL PLANNING TEAMS ARE AN IMPORTANT PART OF THE SALMON ENHANCEMENT EFFORT IN THE STATE OF ALASKA. THE FOLLOWING STATEMENTS CONSTITUTE THEIR MISSION, STATUS, AND OPERATIONS AND CONFIRM ROLES AND TASKS THAT, AS A MATTER OF PRACTICE, HAVE BECOME RECOGNIZED AS APPROPRIATE.

MISSION STATEMENT

The mission of a regional planning team (RPT) is to plan for the long-term future of the salmon resource within its region. The team's primary responsibility is to initiate and continue an orderly process that examines the full potential of the region's salmon production capacity.

LEGAL REFERENCE

Pursuant to AS 16.10.375-470, the Commissioner of the Alaska Department of Fish and Game (ADF&G) has designated salmon production regions throughout the state. In each such region, the Commissioner is responsible for the development and amendment, as necessary, of a comprehensive salmon production plan.

The RPT, which consists of representatives from ADF&G and the appropriate Regional Aquaculture Association, develops and amends the plan for the Commissioner. The team has ex-officio members as considered necessary by the individual RPTs. The RPT is ultimately responsible to the Commissioner. Any staff funded by the ADF&G to assist the RPT with planning may be administratively monitored by the association but will be supervised by the RPT in planning matters.

The RPT is the only statutorily-created planning group with legally-mandated ADF&G and private sector participation.

State statute defines certain duties of the RPTs. They are:

1. Plan development and amendment.
2. Review of private nonprofit (PNP) hatchery permit applications and recommendations to the Commissioner.
3. Review and comment on proposed permit suspensions or revocations by the Commissioner.

HISTORICAL PERSPECTIVE

The underlying premise of regional planning is to provide a means whereby private-sector user groups, represented through regional aquaculture associations, and the public sector, represented by ADF&G, may establish and maintain a cooperative, working relationship.

This relationship would facilitate and enforce the efforts being made in each region to contribute to the maintenance and enhancement of the salmon resource.

The major, initial role of the RPT is to develop a Comprehensive Salmon Plan. Comprehensive salmon planning has evolved since 1977 into three basic components: (1) Phase I Planning - a Comprehensive Plan; (2) Phase II Planning -- project specific planning; and (3) plan maintenance.

The RPT reviews PNP permit applications, as mandated by the statutes. The RPT review and comment on an application is based upon the objectives of the Comprehensive Plan. To conduct these reviews, the RPT must have current knowledge of private and public-sector proposals and operations. Public-sector hatcheries are to be included in the development of the Comprehensive Plan, pursuant to AS 16.10.375. The RPT reviews and comments on public-sector hatchery operations as well.

PLANNING, REVIEW, AND COMMENT PROCESS

Phase I Planning

The process begins with the development of a long-range Comprehensive Plan for salmon production in a region.

The Comprehensive Plan is a 20-year, strategic, regional plan that is generally consistent with the plan content outline that has been adopted by the Commissioner's Office. Since opportunity and need for salmon resource enhancement vary by region, variations within the outline categories may be necessary to address regional differences. While a 20-year time span was determined to be reasonable for long-term salmon development planning, amendments necessary to keep the plan current require shorter time frame planning. This is referred to as Phase II planning.

Phase II Planning

Phase II of the planning process occurs after the comprehensive plan is approved and addresses the plan's statutory update and amendment requirements. The Phase II plan develops detailed project descriptions and provides information for project implementation. The product of this effort may be a separate document or may be additional information or revisions incorporated into the comprehensive planning process through annual reports or plan updates.

Prior to Commissioner approval of the Comprehensive Plan, Phase II; Northern Southeast (NSPII) the future role of the RPT had not been defined. Chapter 9 of the NSPII addresses this matter:

"...since the beginning of the process, it has been recognized that the plan must not be considered fixed or static but, rather, constantly evolving; that, therefore, the RPT would have a continuing role in aquaculture planning. This continuing planning effort must relate actual events to the plan and make the plan responsive to new knowledge and ideas and changing conditions."

The Commissioner, in approving NSPII, sanctioned the process used to develop that document as a guide for the plan amendment process. Chapters 9 and 10 of the NSPII provide one format to accomplish the amendments and to respond to plan maintenance needs.

Plan Maintenance

The RPT will meet at least once a year to update the Comprehensive Plan. These updates may include identification of new projects, and assessment of progress of ongoing projects toward achievement of the goals and objectives of the Comprehensive Plan. Some vehicles that provide the RPT with necessary information to accomplish the update include PNP Annual Reports and FRED and PNP Basic and Annual Management Plans.

Update of the annual report should be a process involving both the RPT and the implementing agencies. The RPT will seek the best biological advice available from those agencies and formulate recommendations. The updates will be submitted to the Commissioner as an annual report. The Commissioner or his representative will consider the report recommendations.

Review and Comment

To execute legally mandated review and comment responsibilities and to arrive at recommendations for permit approval, revocation, or suspension, the RPTs require criteria that can be applied equitably to all permit applications and ongoing operations. The Commissioner and the RPTs have arrived at a general consensus that the review, comment, and evaluation criteria, designated and elaborated on in Chapter 9, pp. 76-86, NSPII, will "...be consistent with the language and charge provided in AS 16.10.400 (a), (f), (g)..." and will serve as a model to conduct reviews and make recommendations. RPT participation will not be limited solely to these criteria.

BASIC OPERATIONAL DUTIES

The Regional Planning Team (RPT) will:

1. Develop a Comprehensive Salmon Plan for the region it represents and submit the draft document to the Commissioner of the Alaska Department of Fish and Game (ADF&G) for review and approval.
2. Develop and submit for ADF&G Commissioner review and approval, a Phase II planning process or document to serve as a vehicle for the implementation and amendment of the Comprehensive Plan.
3. Establish and implement a maintenance program that is at least inclusive of items #6 through #14 below.
4. Review private nonprofit (PNP) hatchery permit applications and make recommendations to the Commissioner.
5. Review and comment to the Commissioner on PNP permit suspensions or revocations proposed by the Commissioner.
6. Review and comment on both PNP and ADF&G Annual Hatchery Management Plans, Annual Reports, and, at Commissioner's discretion, proposed permit alterations. This review could provide information for conducting performance analysis and evaluation for plan amendment purposes.
7. Apply regional criteria modeled in Chapter 9, pp. 76-86, Comprehensive Plan, Phase II, Northern Southeast Alaska to all review, comment, performance evaluation, and analysis activities.
8. Meet at least once annually, but as many times as necessary, to discuss:
 - A. Ongoing, enhancement and rehabilitation projects.
 - B. New projects being considered for implementation.
 - C. New opportunities which may be investigated as potential projects.
9. From the meeting or meetings addressed in paragraph #8, the RPT will prepare an annual report or plan update which will address the following items in relation to the Comprehensive Plan:
 - A. Summarize the basic conditions of the Comprehensive Plan.
 - B. Present events and trends of the immediate, past five years with comparisons and contrasts to basic conditions.
 - C. Present major events of the immediate past season with comparisons and contrasts to basic conditions.
 - D. Project events for the coming five years and relate them to immediate goals and objectives of the Plan.
 - E. Summarize conditions at the end of the year with reference to all goals and objectives of the Comprehensive Plan, current year's accomplishments, and relevant RPT commentary.

10. Provide the general public an opportunity to review and comment on current Phase II projects and to suggest new projects.
11. Consider and incorporate, where appropriate, the public comments on suggested revisions to the Phase I and Phase II Plans.
12. Annually transmit to the Commissioner the draft report, resulting from the above considerations, for review and approval.
13. Incorporate the Commissioner-approved annual report into the Phase II planning process.
14. Make periodic recommendations to the Commissioner concerning potential changes in the Charter and perform such other tasks as are deemed advisable and desirable by the Commissioner.

CONCLUSIONS

The RPT is the instrument of active cooperation between the regional aquaculture associations and the ADF&G and its various divisions. To accomplish that cooperation, regular exchange of information and discussion of objectives are necessary. A regular meeting schedule is important to maintain the relationship. The work of the RPT should support the best interest of the resource and be based on the best professional fisheries information. It should also recognize the interests of the salmon users. To this end, regular participation from the users should be solicited, and those groups should be advised concerning the decisions and recommendations of the RPT. This dialogue is a key element of the regional planning process.

THEREFORE, REGIONAL PLANNING TEAMS ARE, BY MEANS OF THIS DOCUMENT, CHARTERED TO PERFORM THE BASIC OPERATIONAL DUTIES WITHIN THE GENERAL PLANNING FRAMEWORK OUTLINED ABOVE AND TO REGULARLY REPORT THEIR PROGRESS TO THE COMMISSIONER OF THE ALASKA DEPARTMENT OF FISH AND GAME.

GLOSSARY

ADF&G -- Acronym for Alaska Department of Fish and Game.

Annual Report -- Summary of results of plan update.

Commissioner -- Principal executive officer of the Alaska Department of Fish and Game.

Commissioner approval -- Formal acceptance of a salmon development plan or other RPT products by the Commissioner.

Comprehensive Plan, Phase II, Northern Southeast Alaska -- Document produced by Northern Southeast Regional Planning Team and approved by the Commissioner on December 6, 1982.

Comprehensive Salmon Production Plan -- A statutory-mandated, strategic plan, spanning 20 years, for perpetuation and increase of salmon resources on a regional basis.

Criteria -- Accepted measures or rules for evaluation of program and project proposals and operations.

Five-year action plan -- The section of Phase II which recommends projects for implementation within the next five years (Chapter 10 of NSPII).

NSPII -- Acronym for Comprehensive Plan, Phase II, Northern Southeast Alaska.

PNP -- Acronym for private nonprofit.

Phase II Plan -- An analytical document or process that addresses salmon production development by geographic unit, project, and site and makes recommendations concerning both long and short-range opportunities (usually 20 and 5-year time frames).

Plan amendment -- Analyzing and evaluating a planning document with the option of changing the plan.

Plan content outline -- A document that defines topics and gives guidance and shape to comprehensive salmon plans.

Plan development -- Composing, drafting, revising, and finalizing a planning document.

Plan maintenance -- Process through which the RPT reviews and comments on existing plans to preserve, continue, and expedite planned salmon production.

Plan, The -- Comprehensive Salmon Plan.

Plan update -- The process and results of RPT review and changes of a plan document.

Private nonprofit -- Legal and/or operational status of a private sector organization without a profit motive.

Private nonprofit hatchery permit application -- A request presented by a private nonprofit corporation to the Department of Fish and Game for a permit to operate a private nonprofit hatchery.

Private sector -- That group active in salmon resource development which is not employed by government.

Production -- Perpetuation or increase of the salmon resource through maintenance, rehabilitation or enhancement programs and techniques. The Salmon Production Plan addresses stock perpetuation and increase through appropriate balance and integration of program and techniques.

Project -- A unit of work having a beginning, middle, and end that functions according to defined performance criteria.

Public sector -- That group active in salmon resource development that is employed by government.

RPT -- Acronym for Regional Planning Team.

Regional Aquaculture Association -- A statutory-based, nonprofit corporation comprised of representatives of fisheries user groups and organized for the purpose of producing salmon.

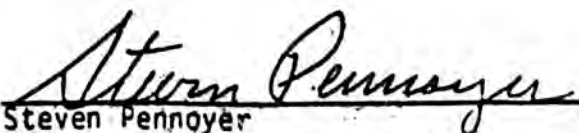
Regional Planning Team -- A statutory-mandated planning group, comprised of Department of Fish and Game staff and Regional Aquaculture Association representatives, designated to develop the Comprehensive Salmon Plan.

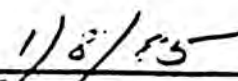
Review and comment process -- A collection of accepted procedures to solicit and generate examination and remarks.

Revised plan -- A document resulting from incorporation of Commissioner-approved material into a plan.

Uniform procedures -- Those practices that have been accepted by planning participants as appropriate for conducting or accomplishing a task.

APPROVE:


Steven Pennoyer
Deputy Commissioner


Date 1/8/85

LEGISLATIVE COUNCIL MEETING

NOVEMBER 1, 1991

MOTION #1:

Approve the expenditure of not more than \$48,000 from the Senate Operating Budget to the University of Alaska, School of Management and/or Limited Entry Commission for a reimbursable services agreement to conduct an extensive review of the Alaska salmon enhancement program.

MOTION #2:

Approve the expenditure of not more than \$10,000 from the Senate Operating Budget to the University of Alaska, School of Fisheries & Ocean Sciences for a reimbursable services agreement to provide salmon population modeling as part of the economic analyses of the Alaska salmon enhancement program.