

HB

454

2/24 HB 454/STATE HATCHERIES
(scheduled to be heard in resources 2/26)

Tom Mears from the Cook Inlet Acquaculture Association had the following to say about HB 454, State Hatcheries:

Fish & Game has determined that they will only be able to operate 15 of the 19 hatcheries in the state. As a solution they want to contract three hatcheries out to regional acquaculture associations in the area. (another alternative has been worked out for the fourth one)

Present procurement laws do not allow sole-source contracting. HB 454 is designed to remedy this problem by giving preference rights to acquaculture associations in this case.

The CIAA strongly supports this bill.

Cheri Shelley may try to get an amendment put on that would protect those state employees that would be laid off due to transferring the hatcheries (approximately 11 would be affected). The amendment would give priority to the laid off employees to be picked up by the associations.

The CIAA opposes the amendment. They want the flexibility to do their own hiring. It may even work out that they would pick up those laid off employees but they want the choice.

FISCAL NOTE

REQUEST:

Revision Date: 2/22/88
Title: An Act relating to the operation of state hatcheries
Sponsor: Eliason
Requestor: Eliason

Agency Affected: Fish and Game
BRU: FRED
Components: _____

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93
PERSONAL SERVICES	0	0	0	0	0	0
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0

CAPITAL	0	0	0	0	0	0
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REVENUE						
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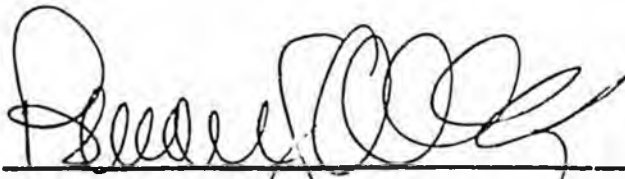
FUNDING: (Thousands of Dollars)


GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	0	0	0	0	0	0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS : (Attach a separate page if necessary)

Prepared by: 
Division: F.R.E.D. Phone: 465-4160
Date: 2/22/88

Approved by Commissioner:  Date: 2/22/88
Agency: Fish and Game

Distribution (by preparer):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

This is
initially
the
part

in the
summary of
the
bill

BILL ANALYSIS FOR
SB 410/HB 454



**STATE OF ALASKA
OFFICE OF THE GOVERNOR
BILL ANALYSIS**

DEPARTMENT Fish and Game	DIVISION FRED	BILL NUMBER SB 410/HR 454	SPONSOR Eliason, Jones, Kerttula, Grussendorf
SHORT TITLE OF BILL			
DEPARTMENT POSITION The department supports this bill as is.			
PREPARED BY Brian J. Allee	DATE 2/22/88	COMMISSIONER'S SIGNATURE <i>[Signature]</i>	DATE 2-22-88

SUMMARY

OTHER AGENCIES AFFECTED BY BILL Department of Commerce and Economic Development	CONSTITUENT GROUPS AFFECTED BY BILL Regional aquaculture associations, commercial fishermen, sport fishermen
ORGANIZATIONAL SUPPORT FOR BILL Regional aquaculture associations, sport fishermen, commercial fishermen	ORGANIZATIONAL OPPOSITION TO BILL

FISCAL IMPACT: NONE FISCAL NOTE ATTACHED

BACKGROUND/LEGISLATIVE INTENT The 1987 Legislature placed intent language in the FY 88 FRED Division budget that directed the division to develop innovative programs for hatchery operation through cooperation with the regional aquaculture associations (RAA). Contracting operations of state-owned hatcheries to RAAs was recommended by a government/public work group formed to address the intent. Building on the private nonprofit laws that have proved effective, this amendment allows FRED to cooperate with the RAAs in developing innovative

Continued on page 2.

ANALYSIS OF BILL/PROGRAM EFFECTS This bill amends existing statutes to extend a preference right to operate under contract existing state hatcheries in the same manner that qualified RAAs have for the development of undeveloped hatchery locations. This preference right for qualified RAAs to operate existing state hatcheries will allow sole source contracting for the operation of state hatcheries if the state is unable to continue due to insufficient operating funds. These contracts will stipulate that the state remain in control of the total program through a permit, a public hearing, and completion of an annual operational plan, all of which are subject to the approval of the Commissioner of the Department of Fish and Game. Additionally, the RAAs, in order to recover the cost of hatchery operations, will be able to sell salmon returning to the facility which are surplus to the common property fishery.

AMENDMENTS PROPOSED

Amend to allow the Commissioner to waive the submission of an application for a permit to operate a hatchery due to the fact that the application process is designed for new hatcheries only, and is unnecessarily time-consuming in this situation.

PLEASE ATTACH A SEPARATE SHEET FOR ADDITIONAL COMMENTS OR ANALYSIS.

(Background/Legislative Intent con't.)

programs. Further, the amendment provides certain assurances to the state, which must maintain jurisdiction over the facilities, to the general public, which bonded themselves for original capital costs to construct the facilities, and to the fishery user groups who depend on the hatchery-produced fish to supplement the natural stocks in off-years. These assurances arise from the proven technical and managerial expertise of the RAAs, along with their financial capability and socially and legally acceptable practice of special harvests of hatchery returns to pay hatchery operational costs. This approach allows for continued hatchery production while reducing the impact on the general fund.

BILL ANALYSIS FOR
CS FOR SB 410/HB 454



STATE OF ALASKA
OFFICE OF THE GOVERNOR
BILL ANALYSIS

DEPARTMENT Fish and Game	DIVISION FRED	BILL NUMBER CS for SB 410/HB 454	SPONSOR Eliason, Jones, Kerttula/ Grussendorf
SECRET TITLE OF BILL			
DEPARTMENT POSITION The department supports this bill.			
PREPARED BY Brian J. Allee	DATE 2/22/88	COMMISSIONER'S SIGNATURE <i>Donnell Kellumsworth</i>	DATE 2-22-88

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Continued on page 2.

ANALYSIS OF BILL/PROGRAM EFFECTS The committee substitute for Senate Bill 410 has incorporated all the amendments proposed by the Department of Fish and Game and has had the thorough review of the Attorney General's Office.

AMENDMENTS PROPOSED

None.

PLEASE ATTACH A SEPARATE SHEET FOR ADDITIONAL COMMENTS OR ANALYSIS.

(Background/Legislative Intent con't.)

programs. Further, the amendment provides certain assurances to the state, which must maintain jurisdiction over the facilities, to the general public, which bonded themselves for original capital costs to construct the facilities, and to the fishery user groups who depend on the hatchery-produced fish to supplement the natural stocks in off-years. These assurances arise from the proven technical and managerial expertise of the RAAs, along with their financial capability and socially and legally acceptable practice of special harvests of hatchery returns to pay hatchery operational costs. This approach allows for continued hatchery production while reducing the impact on the general fund.

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CAPITAL	0	0	0	0	0	0
REVENUE						

FUNDING: (Thousands of Dollars)

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FEDERAL FUNDS						
OTHER						
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POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS : (Attach a separate page if necessary)



Prepared by: _____
Division: E. R. E. D.

Phone: 465-4160
Date: 2/22/88

Approved by Commissioner: Donnell Kellinworth
Agency: Fish and Game

Date: 2/22/88

Distribution (by preparer):

- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

EXECUTIVE SUMMARY OF
1988 REPORT TO THE ALASKA STATE LEGISLATURE
ON THE FUNDING OF THE FISHERY ENHANCEMENT PROGRAM

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FRED DIVISION

FRED 1988 Report To The Alaska State Legislature On The Funding Of The Fishery Enhancement Program

Brian J. Allee, Ph.D. Director

By the end of the 1987 Alaska legislative session, lawmakers and fishermen became aware that the budget allocation for the Fisheries Rehabilitation, Enhancement and Development (FRED) Division would reduce funding for the public hatchery program (Figure 1), and result in the shut down of several facilities. To avoid the considerable economic dislocation that would result from such a major reduction in the ocean-ranching program, emergency-funding mechanisms were explored through a cooperative effort between the Legislature, FRED Division, and the regional aquaculture associations. The Legislature de-

veloped intent language in the FY 88 ADF&G budget to encourage this cooperative effort and explore a broad range of innovative funding techniques for the fishery enhancement program.

BACKGROUND

Since the early 1900s, the dependence of salmon on favorable environmental conditions has led to dramatic fluctuations in fishing har-

vests that have produced an economically unstable fishing industry. The bust portion of this "boom-and-bust" cycle that brought total salmon harvests to less than 30 million fish could be repeated in the future (Figure 2).

In 1987, Alaskan hatcheries took over 1.3 billion Pacific salmon eggs and over 10 million trout eggs. This makes Alaska's salmon

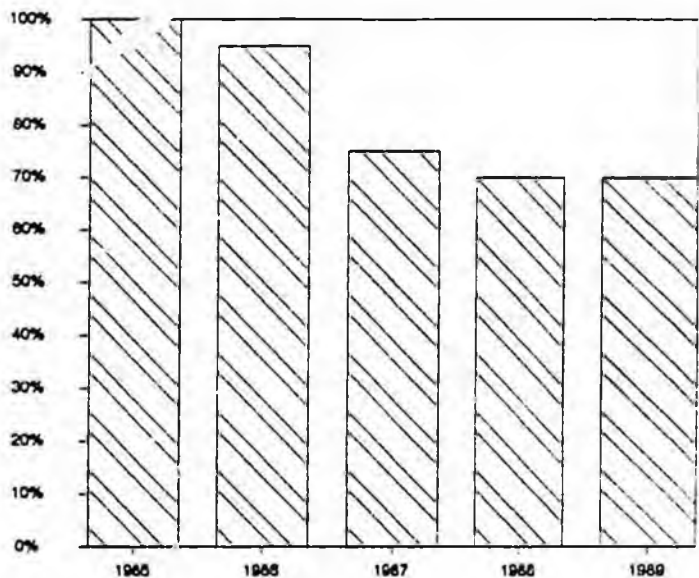


Figure 1. Decrease in General Fund to FRED Division. Percent of FY 1985 Budget. Adjusted for Inflation.

ocean-ranching program the largest in North America, approximately one-half the size of Japan's program, and approaching the size of the Russian program. The sockeye salmon enhancement program in Alaska is the largest and most technologically advanced; over 100 million eggs were taken in FY 1988.

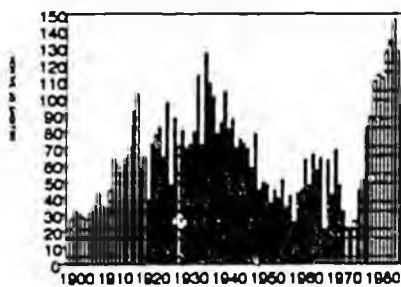


Figure 2. Alaska commercial salmon harvest from 1900 to 1987.

The fishery enhancement program in Alaska has been a tremendous biological success. In some years the number of harvested salmon resulting from Alaskan fishery enhancement has exceeded both the natural and enhanced catch produced by the State of Washington, which is the nation's second-largest salmon producer after Alaska. The combined state and PNP catch estimates equal approximately 26 million salmon in 1987 (Figure 3). This production represents roughly 20% of the total Alaska salmon harvests. Partially obscured by these numbers is the fact that

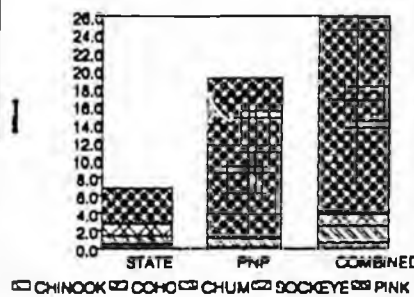


Figure 3. Alaska hatchery salmon returns in FY 1988.

the FRED facilities have focused on production of fewer, high valued species and the PNP facilities have focused on producing larger numbers of lower valued species.

In FY 89 more than 600 million salmon, steelhead, and trout eggs will be taken at state-owned hatcheries. The number of salmon eggs taken by species are shown in Figure 4. This production level will result in approximately 11 million harvested adults in the commercial fishery (Figure 5). Substantial harvests will occur in the recreational fishery also.

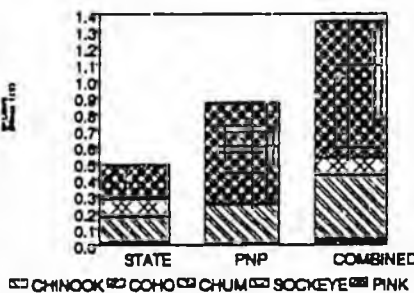


Figure 4. Alaska hatchery salmon egg takes for FY 1989.

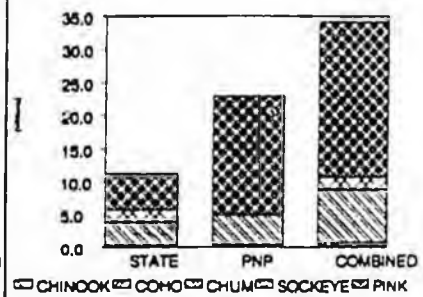


Figure 5. Projected commercial harvests from salmon egg takes in FY 1989.

The PNP salmon catch estimates for returning adults from fiscal year 1989 egg takes equal approximately 23 million. Total projected revenues to fishermen re-emphasize the trend toward higher valued species in the FRED hatchery program (Figure 6).

Currently, Alaska's ocean-ranching program is in a funding crisis. Budget cuts account for a 25% reduction in FRED Division's portion of the general fund since FY 85; in inflation-adjusted terms, FRED funding has been reduced by over 30% since FY 85.

The irony of this crisis is that with the exception of the enhancement program, few other general and capital operating budget expenditures, available to Alaska are able to improve the level of economic activity in the state, by expanding the output of the economy. In this

Gross Revenues For Alaskan Hatcheries from 1988 Egg Takes

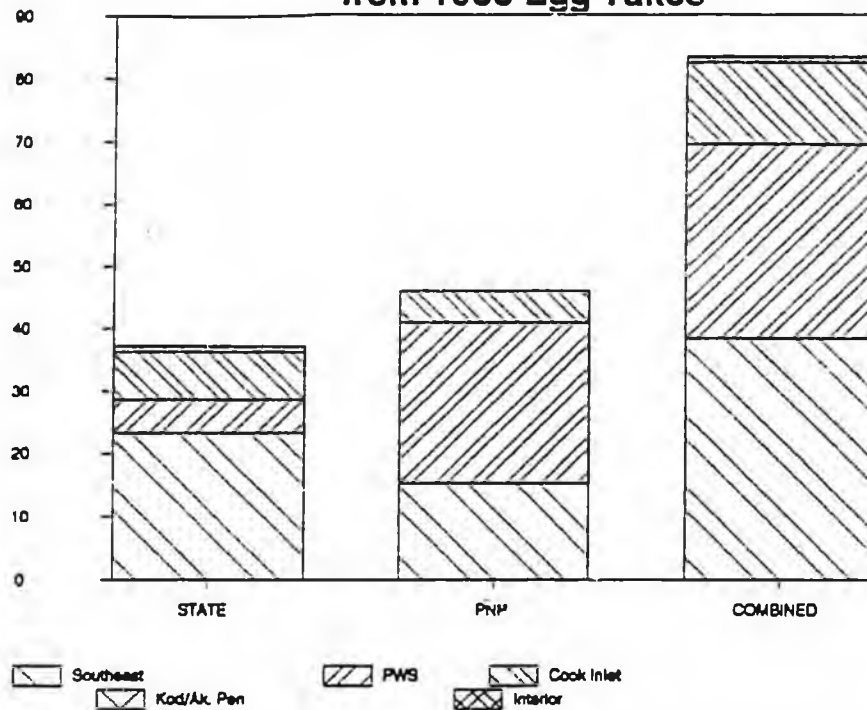


Figure 6. Projected commercial fishery revenue for hatcheries from eggs taken in FY 1989 in millions of dollars.

regard, salmon enhancement is very attractive because it offers impressive net benefits and impacts in the salmon industry and throughout the regional economies of Alaska.

In the commercial fishery, the net benefits, or profits from these projects, first accrue to the fishermen who own limited entry permits; however, the impacts of the program ripple through the general state economy. The net benefits of the commercial fishery portion of the statewide program are approximately \$90 million. This

results in an overall benefit-cost ratio of 1.4:1. This means that \$1.40 in fish values will be generated for each \$1.00 expended. Alaskans in almost all regions of the state realize increases in personal income in not only the fishing sector, but also the fish processing sector, government sector, and through service, wholesale and retail trade sectors. The impacts in terms of personal income to resident Alaskans are greater than the dollar-for-dollar impacts of typical state expenditures from the general fund, capital projects, and the permanent

fund disbursements. The FY 89 budget proposed by FRED Division would generate approximately \$35 million in resident income to Alaskans as well as 1,040 jobs. The analysis of the PNP enhancement program impacts resulting from brood year 1988 are preliminary at this time; however, preliminary estimates project approximately \$40 million in resident income and 1,100 Alaskan jobs. This economic impact analysis has been generated by a model designed by The Institute of Social and Economic Research (ISER) at the University of Alaska in Anchorage.

CONCLUSIONS

There was a clear consensus among fishermen and in the work group at large that the FRED Division should receive full funding for hatcheries from the general fund as a first priority. Most work group members acknowledged that this was the most secure way of continuing the economic net benefits of enhancement projects.

A key issue in the funding discussions was whether primary users should pay a greater share of fishery enhancement costs than now.

Fishermen groups were unanimously opposed to tax and license fees that might increase their contribution to the state treasury for fishery enhancement. The regional association representatives and fishing leaders have pointed out that existing tax revenues from the fishing industry are already large and approximately offset general fund expenditures for fishery management and enhancement. Fishermen also assert that they are large contributors to the general fund, and there should not be additional fees imposed on them. The fishing leaders explain that any additional costs of fishing may impose

financial hardships on a fleet already burdened with many costs.

The second view presented to the work group states that the salmon fishery is a common property fishery that belongs in part to all Alaskans. As with the royalty oil taxes, the residents of Alaska have a right to collect rents to the state treasury that are equal to or in excess of the amount required to manage and enhance the fishery or to find other methods of sharing costs of enhancement among the primary beneficiaries.

These are difficult issues for Alaska to sort out. It is not the intent of the FRED Division or this report to suggest which view is appropriate. The Legislature has to determine the social and economic goals it wishes to achieve with fishery enhancement. Many of the state-owned facilities were created to produce broadly distributed benefits. As such, it is difficult to find a voluntary method to shift the funding burden to a specific interest group without changing the goals and or the beneficiaries of the hatchery production. Also, the availability of funding for statewide enhancement as well as the net benefits from the state fishery enhance-

ment program could be dramatically effected by legislative action on user financing. If the legislature should choose to go forward with professional service contracts or other funding mechanisms the timing for the approach will be critical. This is because a phased reduction of the General Fund would have to be accompanied by appropriate legislation to avoid a major discontinuity of the economic benefits of hatchery production.

In the absence of full funding for the projects, the division's short term and incremental approach to future funding is the FY 89 proposed budget strategy of contracting operation of selected state hatcheries to the private non-profit sector.

The concept of contractual agreements in the FY 89 budget represents a significant shift toward a greater user participation in hatchery funding and hatchery decision making. They allow for greater user participation in financing in return for considerable additions in future harvests, net benefits to fishermen, and personal income and employment in Alaska's economy. These benefits derive from reprogramming funds that would otherwise

be spent to operate conventional, commercial fish production hatcheries. None of the parties involved in the many user group meetings opposed the use of contracting out hatcheries to the regional aquaculture associations as a short-term solution.

Since the contracts for state hatchery operation are innovative, legal or administrative obstacles may delay or stop the process. The fishing industry and the entire state economy would suffer both short- and long-term losses if the targeted hatcheries were shut down or other FRED programs were put in "mothball" status. Perhaps the Legislature could suggest other solutions to avoid these losses, such as an exemption from the new

procurement code or an amendment to the PNP statutes.

Fulfilling the requirements of the FY88 (SLA 87) legislative intent has been a highly interactive and revealing process for all participants. On one hand, the interacting with varied interests in the work group as well as developing the analytical information, has allowed us to examine funding methods open to government. On the other hand, it has shown us that implementation of effective and innovative funding methods must be incremental in nature and will require patience and cooperation of government, user groups, and the Legislature. In the final analysis, it may be possible in FY 89 and, perhaps, FY 90 to promote increased user par-

ticipation in funding fishery enhancement. Other measures have been taken to reduce FRED Division's dependence on the general fund and generate program receipts. However, in the short term, there remain no other legal and politically acceptable quick fixes that would result in larger scale reductions in FRED's operating budget without significant reductions in enhanced salmon production and considerable dislocation in the general economy.

The FRED Division believes this report should not be the end point for the funding investigation process. The division intends to continue the work group effort in designing longer term solutions.

EXECUTIVE SUMMARY OF
FRED DIVISION ANNUAL REPORT FOR 1987

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FRED DIVISION

FRED DIVISION ANNUAL REPORT FOR 1987

The Fisheries Rehabilitation, Enhancement, and Development Division (FRED) of the Alaska Department of Fish and Game came into being through legislation enacted in 1971. Its purpose is to sustain and enhance Alaskan fisheries through the development and application of technologies in supplemental production and natural stock rehabilitation. It is the major component of the state's salmon enhancement program. FRED provides many services to the state's fisheries programs through its operation of 19 hatcheries and four laboratories, its complement of technical specialists and its administration of the regional aquaculture associations. FRED is closely associated

with the Private Non-Profit (PNP) program in Alaska through its regulatory functions, its technical assistance, and its many cooperative ventures with various groups comprising the program.

Salmon production programs of both state and PNP operations are growing and contributing significantly to the fisheries and the economy of the state (Table 1). In 1987, the salmon enhance-

ment program in Alaska (see map) produced almost 26 million adults, continuing a sweeping upward trend in production (Figure 1). FRED projects produced 6.8 million salmon plus over a half million trout, char, and grayling. Of the salmon produced, approximately 78% were harvested in common property fisheries statewide. All of the non-salmon production was harvested the in sport fishery. Of the salmon pro-

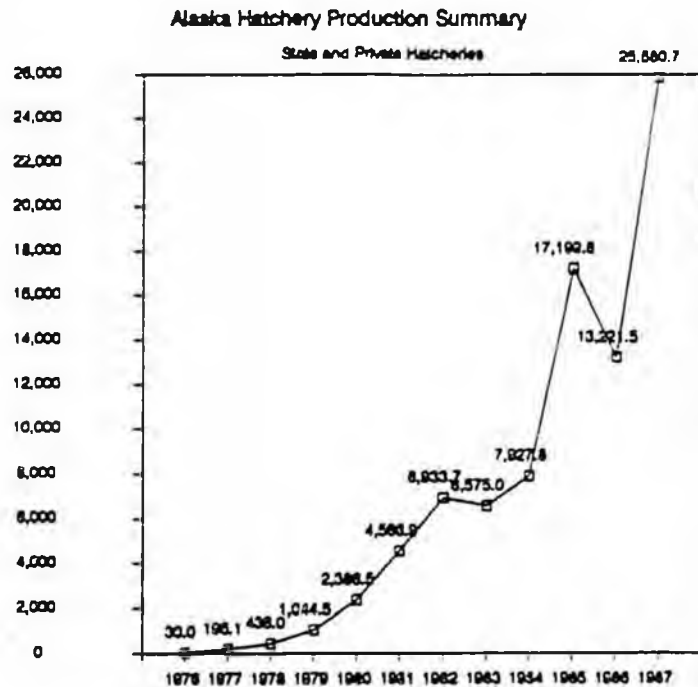


Figure 1. Alaska hatchery production in thousands of adult salmon.

duced at FRED Hatcheries in 1987, approximately 61% were pink salmon, with diminishing percentages of sockeye, chum, coho, and chinook salmon in that order. Individual PNP operators reported that their hatchery programs produced 19 million salmon. Of those salmon produced, approximately 22% were harvested in special harvests and 70% in common property harvests. PNP operators report that 94% of their production was pink salmon with diminishing percentages of chum, coho, and chinook salmon in that order. Releases and egg takes were also up in the Alaskan enhancement programs in 1987. Approximately 1.3 billion salmon eggs were taken by Alaskan hatcheries with an additional 10 million non-salmon eggs taken by FRED facilities. Almost 840 million salmon juveniles were released from state and PNP facilities in 1987 and 10 million non-salmon juveniles were released from Fred facilities.

Returns to FRED facilities in 1988 are projected to be over 7 million fish. This is about one million less than the projections for 1987, but about the same number that actually returned in 1987. The lower projection is largely due to: changing emphasis

from pink and chum salmon to coho, sockeye, and chinook salmon; effects of decreasing funding; and severe climatic conditions that have potentially affected certain pink and coho salmon runs.

Significant progress is being made in many areas of the Alaskan salmon enhancement program. Of the 26 million fish produced, approximately 18.8 million were harvested in the common property fisheries in 1987. This represents approximately 20% of the total statewide harvest in a year in which harvests of many natural stocks were down. The primary objective of enhancement production is to lessen the effect of lows in natural production. The 1987 harvest was the lowest in 8 years. Without production it would have been approximately 75 million fish instead of the 94 million that were harvested. Significant progress is also seen in chinook salmon production. The hatchery add-on to the quota of chinook salmon allowed by the U.S./ Canada Pacific Salmon Treaty was 16,000 fish -approximately 6% of the quota.

In other areas of progress, FRED is continuing its world technology leadership posi-

tion by developing sockeye salmon hatchery techniques for rearing sockeye salmon to the smolt stage in fresh water. This has never been done before. The number of sockeye salmon eggs taken, (100 million) the increasing hatchery technology, and the lake stocking and enrichment activities undertaken by FRED put it at the forefront of sockeye salmon production in the world. The coded-wire-tag (CWT) lab operated by FRED is a model of efficiency in CWT retrieval and data processing. It has hosted visitors from many areas of the Pacific northwest who are interested in emulating the successes attained by this lab in decoding tags, information storage, and dissemination of timely, accurate reports of CWT information. The FRED pathology section opened a second laboratory to better serve the salmon enhancement program, as well as other Alaskan fishery and mariculture operations.

The new lab is in Juneau and will primarily serve the southeast Alaska area. During 1987, the FRED fish pathology staff set in place a statewide infectious hematopoietic necrosis virus (IHNV) control, monitoring, and evaluation program. FRED personnel are actively in-

involved in the recently legislated shellfish mariculture program with major feasibility studies in the Kodiak and Sitka area. Shellfish permitting and regulation activities are a part of the FRED PNP Program.

The FRED Limnology Laboratory processed over 30,000 individual water and zooplankton samples and contributed greatly to a lake fertilization program in which state, federal, and private agencies cooperated.

FRED biological staff continued evaluations of Alaska Dry Pellet (ADP), a diet designed for Alaskan salmon culture and made in Alaska. Latest results are generally excellent.

In 1987, fish hatcheries and other enhancement activities of FRED and the PNP hatchery system have been the subject of economic studies designed to ensure maximal social and economic benefits from the state's investment.

A study conducted in 1984 for the Governor's Mini-cabinet on Fisheries predicts that the statewide enhancement program will generate benefits in excess of costs in the amount of \$90 million to the Alaskan economy for just the

commercial fishery portion of the program.

A recent study utilizing an economic impact model developed by the Institute of Social and Economic Research at the University of Alaska in Anchorage suggests that the economic impact on resident income for the public and PNP program for the FY89 budget will be \$75 million in resident personal income and over 2,000 resident jobs. These impacts result from fishing industry expenditures, government expenditures, and related spending in the rest of the economy. The studies have attempted to quantify the economic impacts of the salmon ranching program to the economy, but economic impacts of the recreational fishery are not available at this time. This will step will be completed in early 1988. Thus, current estimates of personal income and employment for Fisheries Enhancement in Alaska are underestimated at this time.

1987 was a year of change and budget reduction for FRED. Under a new director, the division underwent a reorganization to bring about clarity of purpose and greater operating efficiency. Several FRED hatcheries were operated with help and

cooperation from regional aquaculture associations and fishermen groups. Serious attempts at generating new and innovative funding strategies, based upon legislative intent, met with varying levels of success. FRED led an effort to analyze the statewide enhancement program with the specific goal of defining potential short and long term funding strategies for state facilities. A short term operating plan was designed for the FY89 budget which involves contracting the operation of four FRED hatcheries to private non-profit operators. In all its activities, FRED is committed to reaching the full potential of fisheries enhancement which will support the economic and social integrity of Alaskan communities.

ALASKAN HATCHERIES

STATE AND PRIVATE

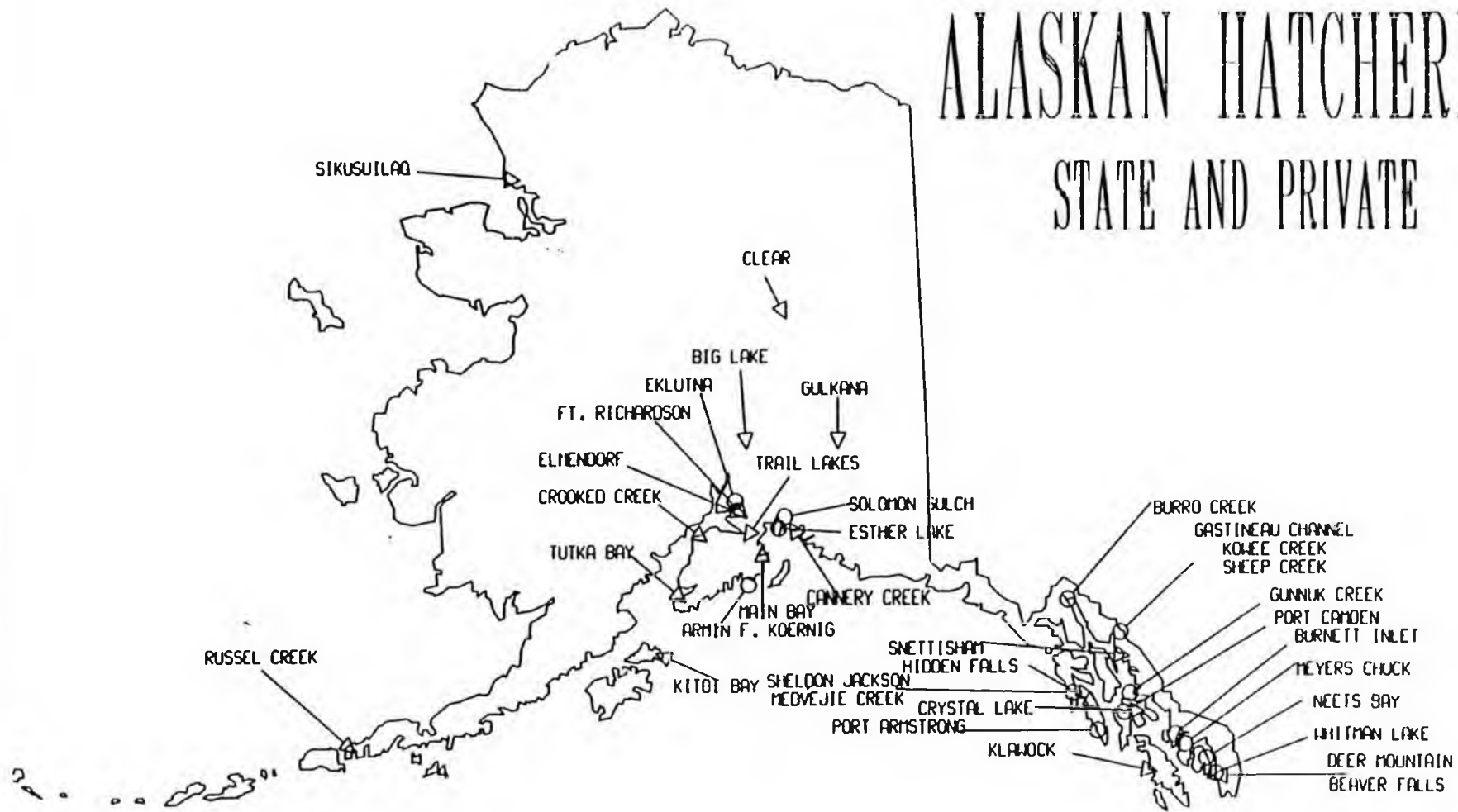
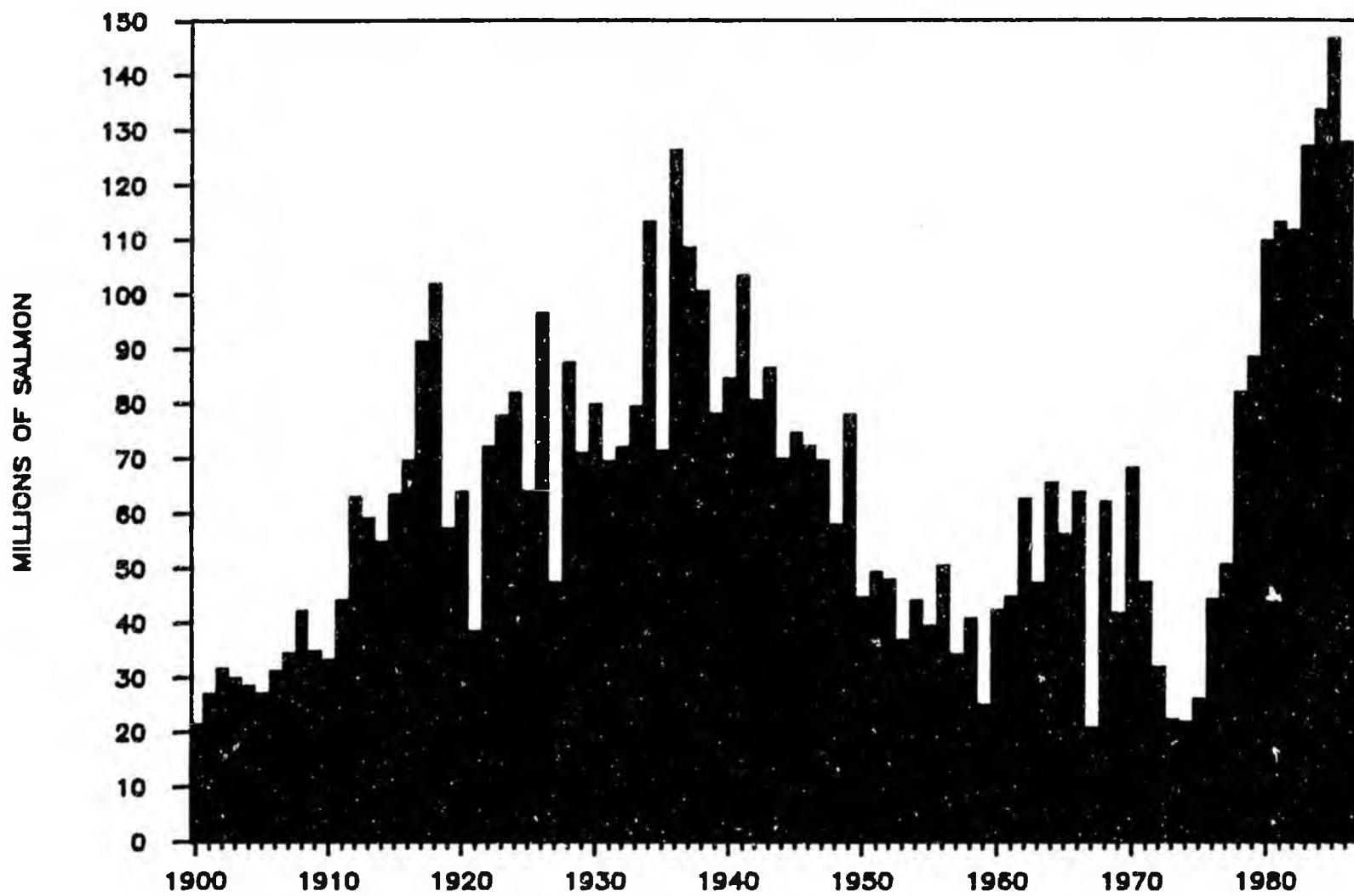


Table 1
 ALASKA PRODUCTION SUMMARY 1982-87
 STATE AND PNP FACILITIES

	STATE CHINOOK	COHO	CHUM	PINK	SOCKEYE	TOTAL
1982	7,935	47,896	97,366	1,389,029	51,070	1,593,296
1983	13,420	22,340	152,800	1,864,800	226,000	2,279,360
1984	17,950	58,550	777,980	1,941,000	368,300	3,163,780
1985	20,434	130,956	863,859	7,312,900	765,000	9,093,149
1986	22,467	321,856	1,179,615	2,630,220	1,163,850	5,318,008
1987	69,624	393,707	974,946	4,037,212	1,308,290	6,783,779
PNP						
1982	3,500	61,709	22,459	5,259,208	0	5,346,876
1983	872	71,781	126,783	4,086,552	0	4,285,988
1984	3,656	121,112	1,001,449	3,637,927	0	4,764,144
1985	8,181	168,427	525,088	7,404,739	0	8,106,485
1986	11,156	344,749	779,637	6,767,984	0	7,903,526
1987	8,643	169,149	955,294	17,963,785	0	19,096,871
COMBINED						
1982	11,435	109,605	119,825	6,648,237	51,070	6,940,172
1983	14,292	94,121	279,583	5,951,352	226,000	6,565,348
1984	21,606	179,662	1,779,429	5,578,927	368,300	7,927,924
1985	28,615	299,383	1,388,947	14,717,689	765,000	17,199,634
1986	33,623	666,605	1,959,252	9,398,204	1,163,850	13,221,534
1987	78,267	562,856	1,930,240	22,000,997	1,308,290	25,880,650

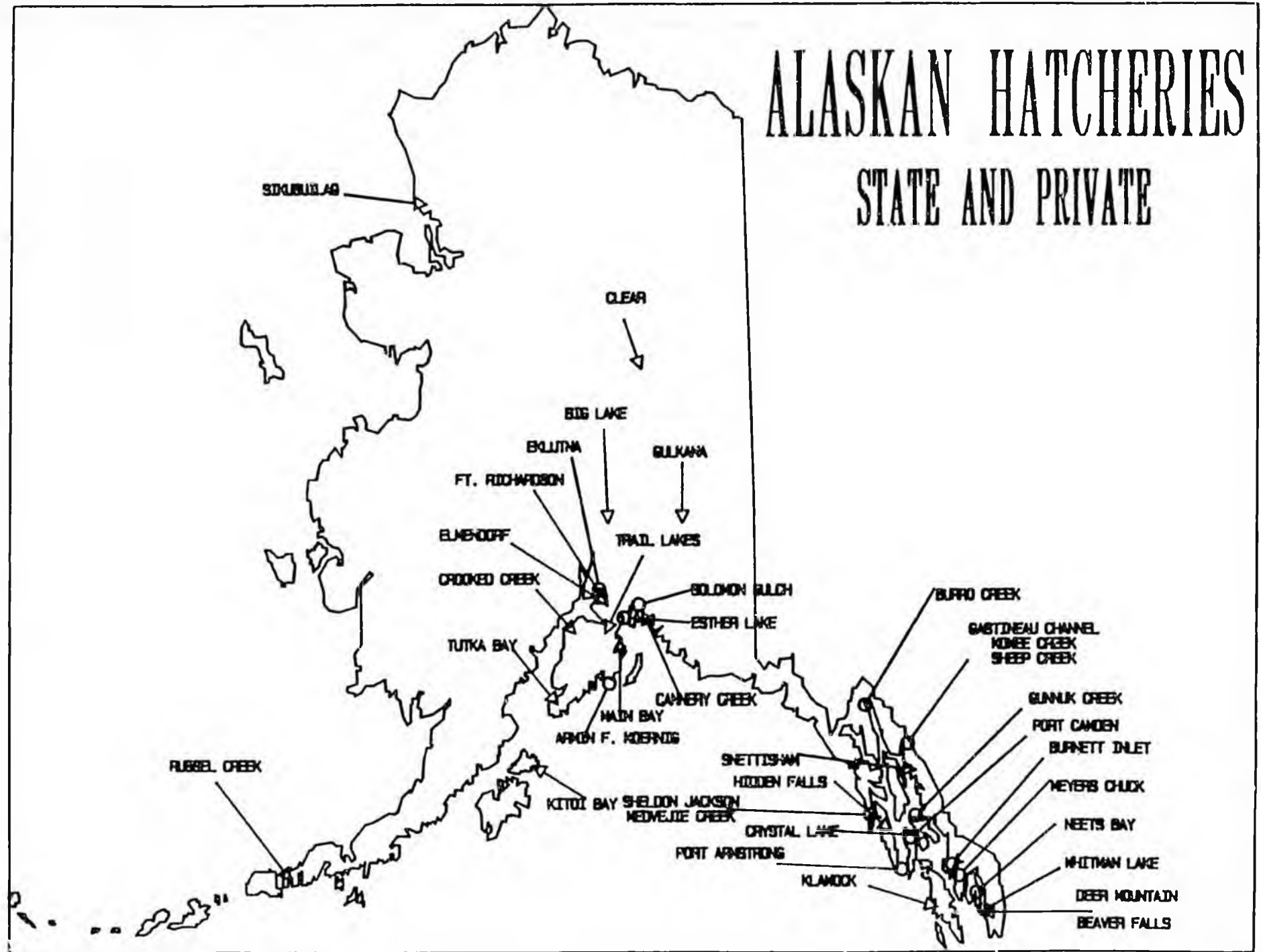
PRODUCTION FIGURES

ALASKA COMMERCIAL SALMON HARVEST



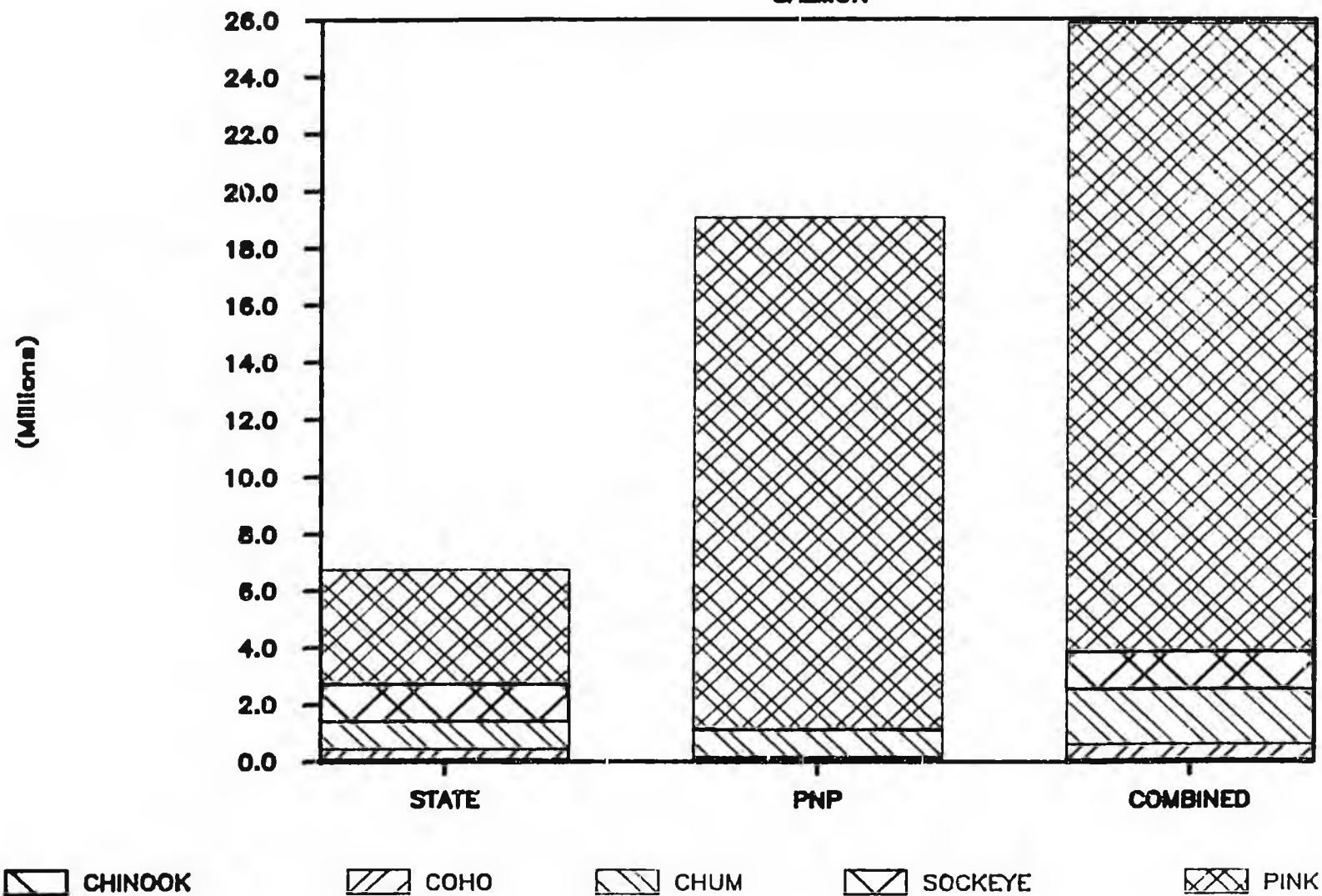
ALASKAN HATCHERIES

STATE AND PRIVATE



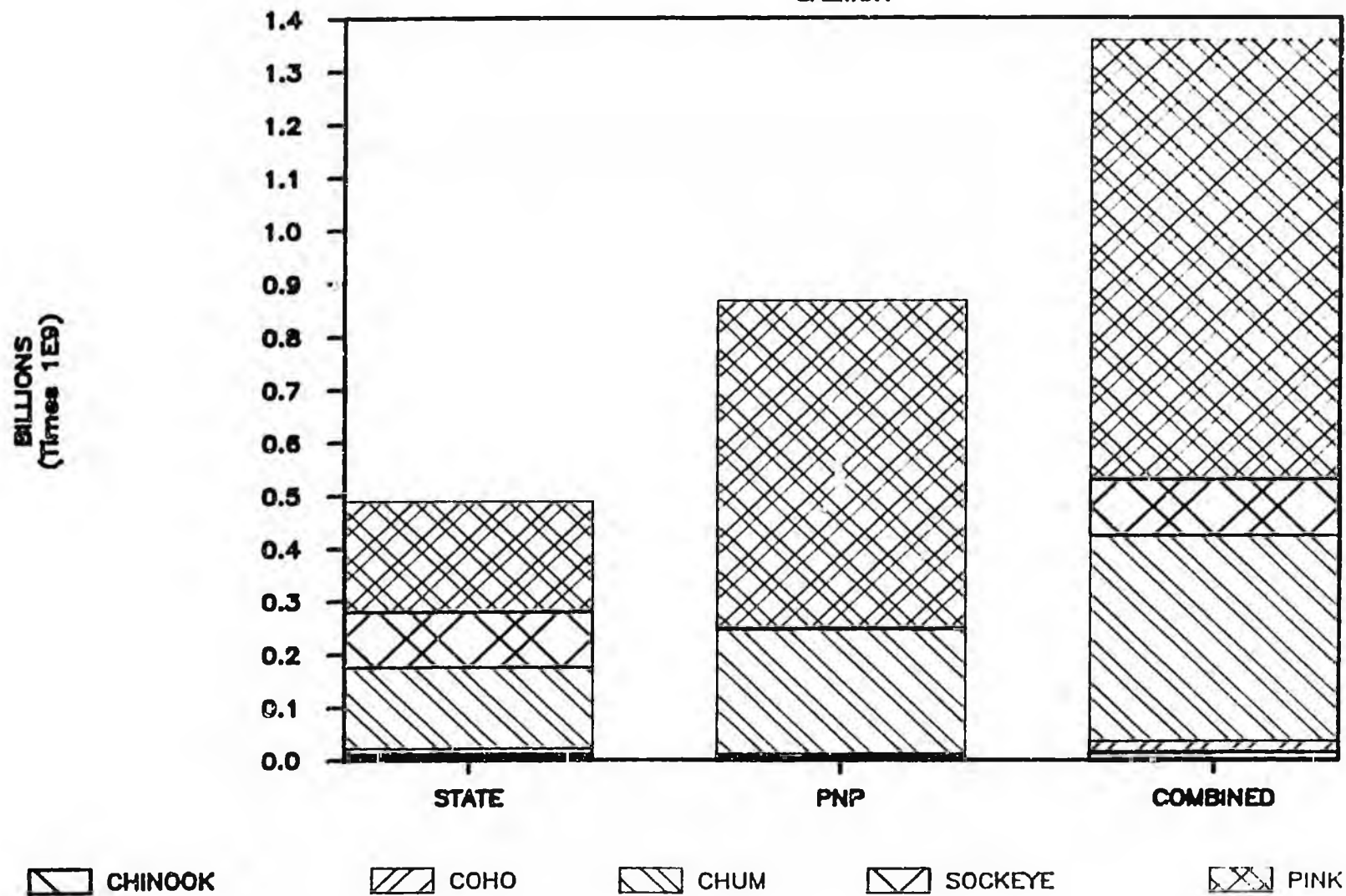
ALASKAN HATCHERY RETURNS 1937

SALMON



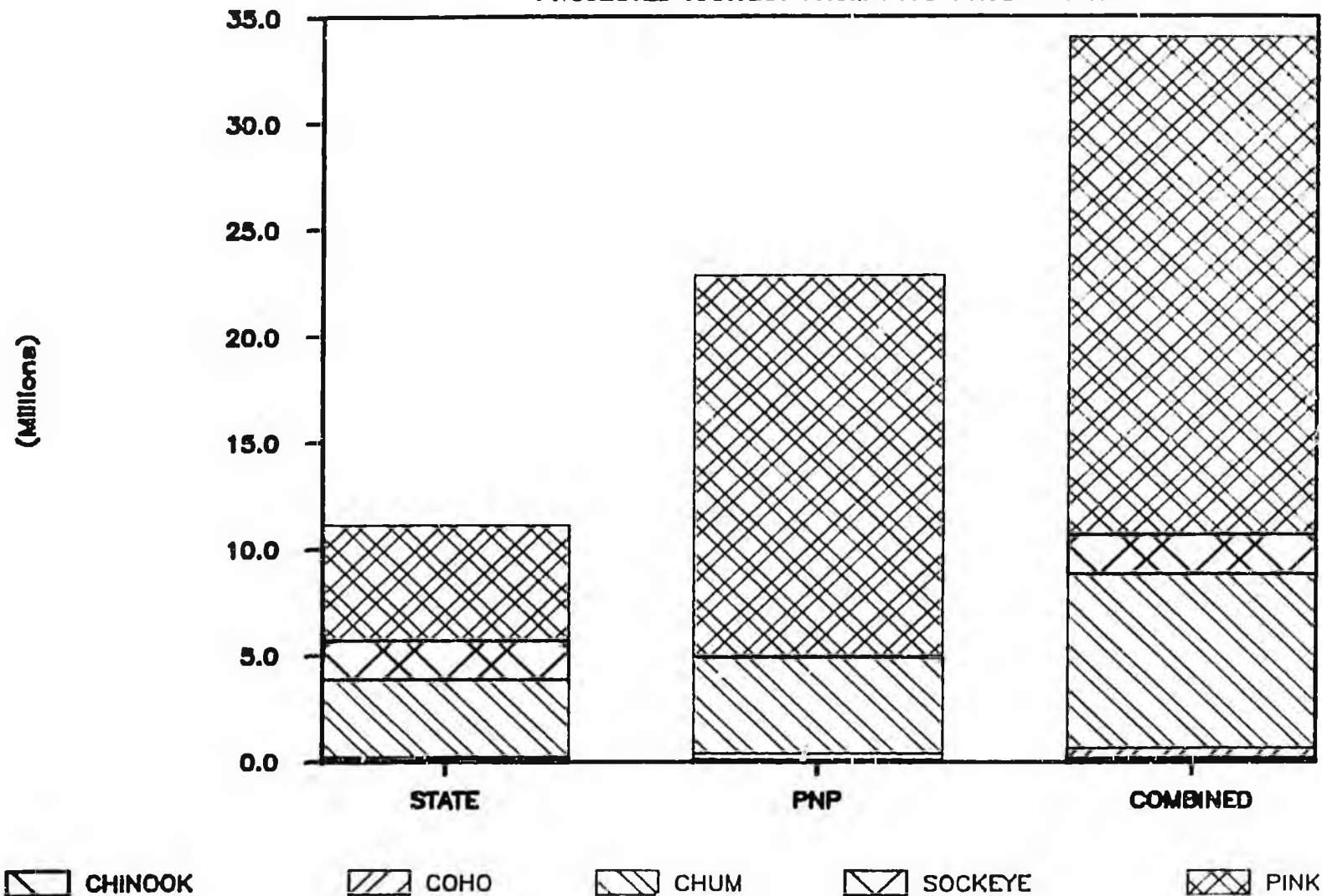
ALASKAN HATCHERY EGGTAKES 1987

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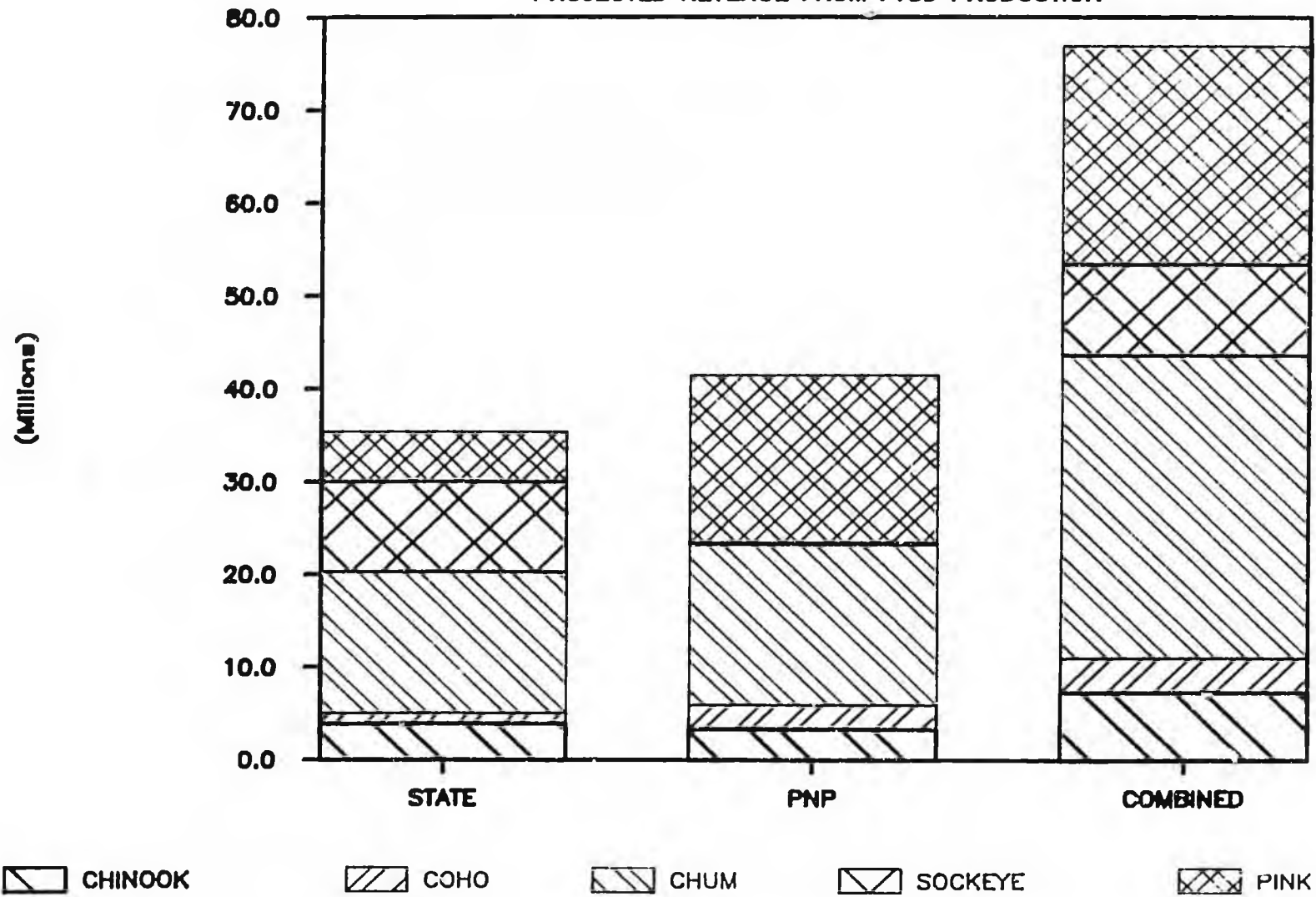
ALASKA STATE AND PNP HATCHERY PROGRAMS

PROJECTED HARVEST FROM FY89 PRODUCTION

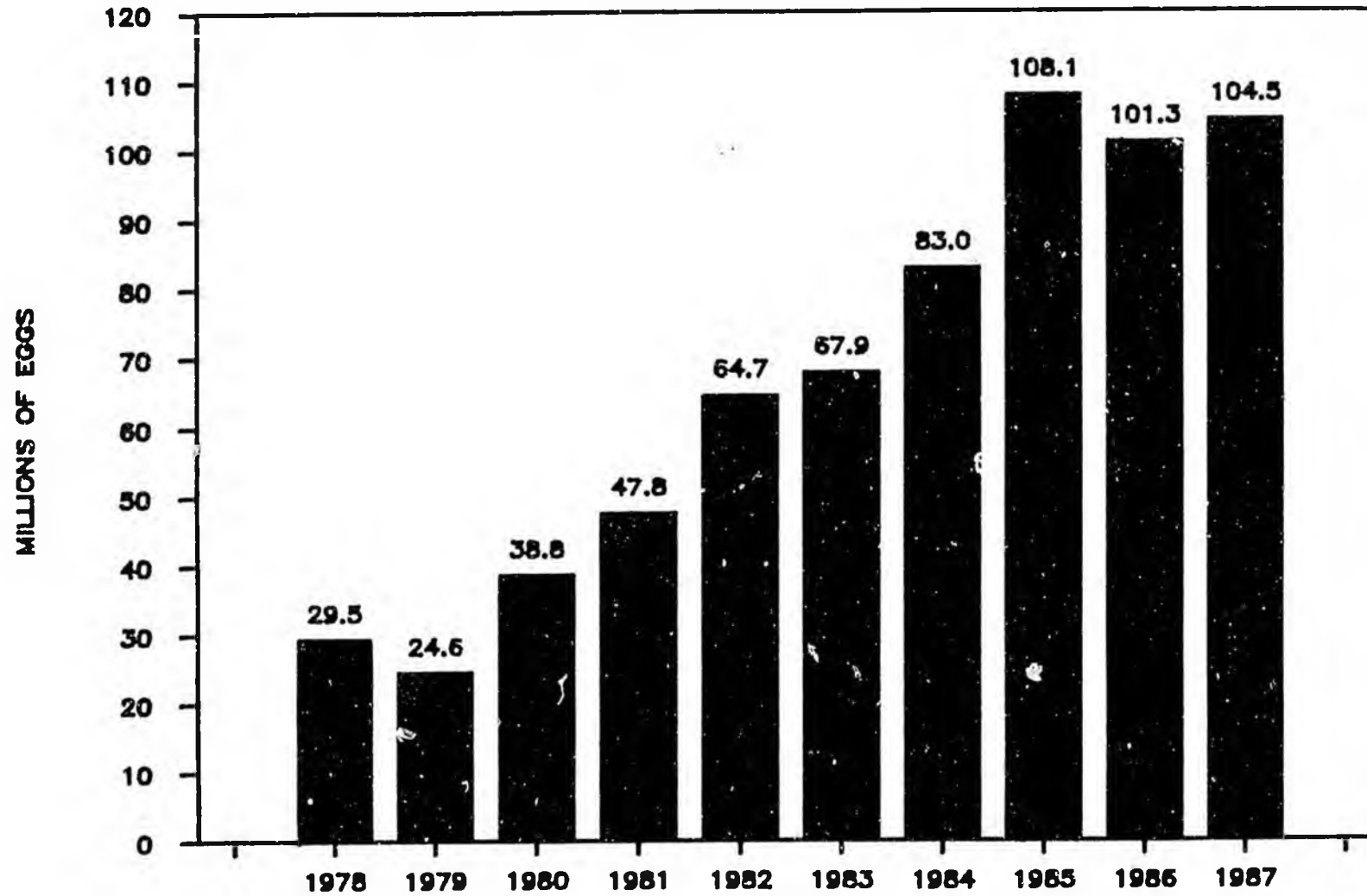


ALASKA STATE AND PNP HATCHERY PROGRAMS

PROJECTED REVENUE FROM FY89 PRODUCTION



SOCKEYE EGGS COLLECTED IN ALASKA FOR STATE FACILITIES





ECONOMIC VIABILITY OF THE STATEWIDE ENHANCEMENT PROGRAM

BENEFIT/COST ANALYSIS

**GOVERNORS MINI-CABINET ON FISHERIES PROJECTS LONG TERM BENEFITS
OF THE STATEWIDE FISHERY ENHANCEMENT PROGRAM OF :**

\$90 MILLION DOLLARS

BENEFIT / COST RATIO OF 1.4 : 1

**NET BENEFITS OVER THE 25 YEAR ECONOMIC LIFE
OF THE STUDY**

**THE NET BENEFITS DO NOT INCLUDE THE CONSIDERABLE VALUE OF
THE RECREATIONAL FISHERY**



ECONOMIC VIABILITY OF THE STATEWIDE ENHANCEMENT PROGRAM

ECONOMIC IMPACTS OF THE FISHERY ENHANCEMENT PROGRAM

**THE STATEWIDE ENHANCEMENT PROGRAM EXPANDS RESIDENT EMPLOYMENT
AND PERSONAL INCOME TO ALASKANS IN 5 REGIONS OF THE STATE**

THE IMPACTS GENERATED BY THE STATE AND PNP HATCHERIES ARE :

STATE HATCHERIES : PERSONAL INCOME : \$35 MILLION

RESIDENT EMPLOYMENT : 1030 JOBS

FISH HARVESTED : 11 MILLION SALMON

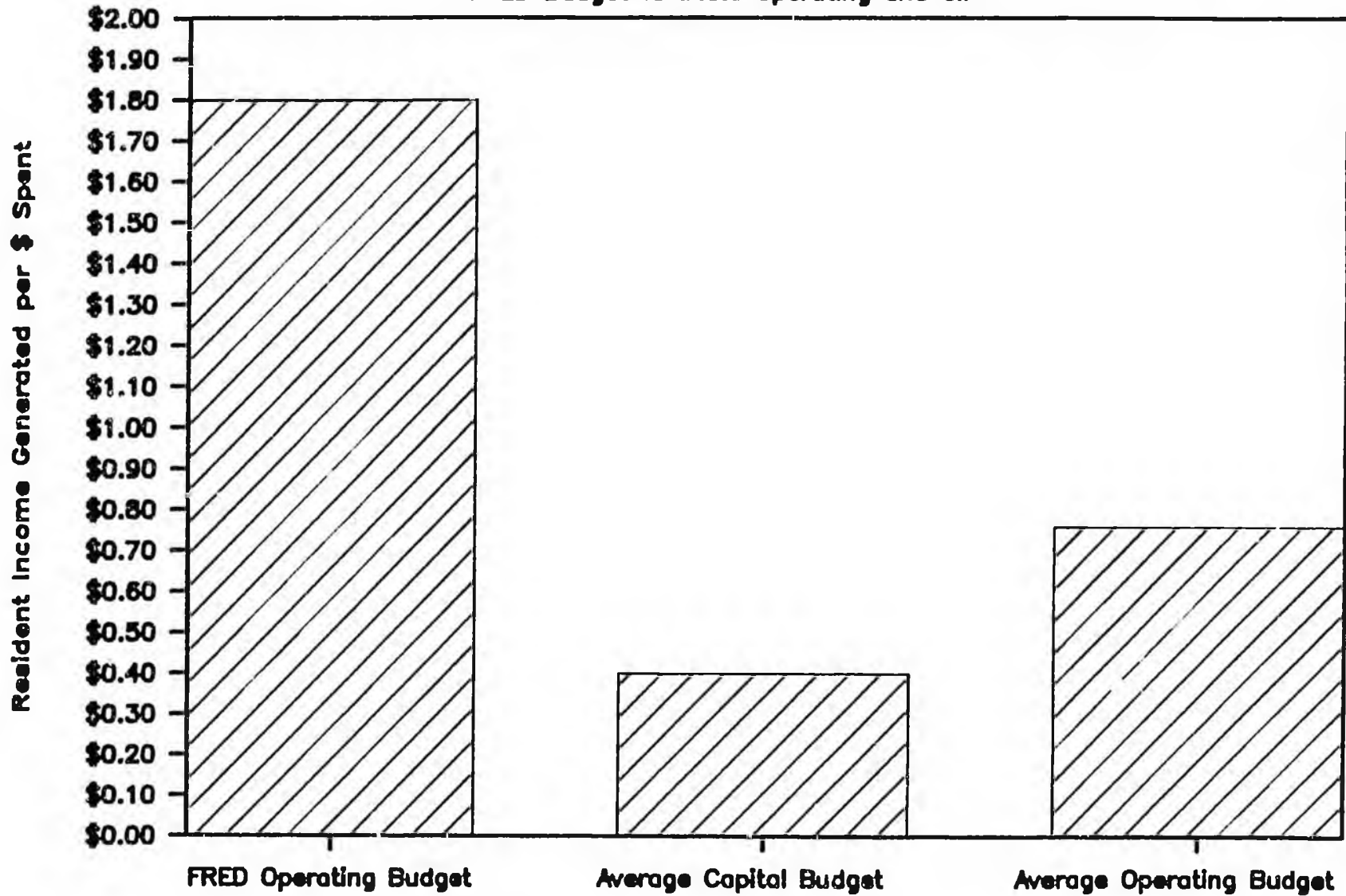
PNP HATCHERIES : PERSONAL INCOME : \$40 MILLION

RESIDENT EMPLOYMENT : 1100 JOBS

FISH HARVESTED : 23.8 MILLION SALMON

Impacts upon Alaskan Resident Income

FRED Budget vs State Operating and CIP



LETTER FROM OMBUDSMAN
REGARDING SOLE SOURCE AUTHORITY TO NEGOTIATE



Ombudsman

State of Alaska

December 23, 1987

Reply to:

3201 C Street, Suite 403
Anchorage, Alaska 99503
(907) 563-3673

P.O. Box WO
Juneau, Alaska 99811
(907) 465-970

Don Collinsworth, Commissioner
Department of Fish and Game
Post Office Box 3-2000
Juneau, Alaska 99811-1100

RE: Ombudsman Complaint J37-0811 (Closed)

Dear Commissioner Collinsworth:

The Office of the Ombudsman recently received a complaint from Dale Young against the Department of Fish and Game alleging that the department is proceeding, contrary to law, to negotiate a contract for transferring the operation of the Hidden Falls Fish Hatchery to the Northern Southeast Regional Aquaculture Association (NSRAA).

Our office has reviewed the copies of the approved Authority to Negotiate (ATN) and the Request for Alternative Procurement Method (RAPM). Your RAPM indicates two reasons for the exemption: (1) The contracting agency demonstrates that there is a single source of expertise or knowledge required, and (2) the service is provided by a political subdivision, state agency or the federal government.

Frankly, I have concerns regarding both reasons expressed in the RAPM. To begin with, it is doubtful that the Northern Southeast Regional Aquaculture Association is the only organization with the expertise and knowledge to operate the Hidden Falls Hatchery. I believe there is sufficient evidence to the contrary.

Your second reason for exemption from solicitation is that the service would be provided by a political subdivision of the State of Alaska. Section 16.10.380 of Alaska Statutes allows the formation of regional aquaculture associations, and paragraph C of that section goes on to say that a qualified regional association is established as a service area in the unorganized borough for the purpose of providing salmon enhancement services. I am wondering if your office has sought legal advise regarding this section as the Hidden Falls Fish Hatchery is within the City and Borough of Sitka, and the NSRAA may not be empowered to operate there. Also the municipality might be interested in operating the facility directly. There is some interesting language on this subject in State, N.S.E. Regional Aquaculture Ass'n v. Alex (Alaska, 646 P.2d 203).

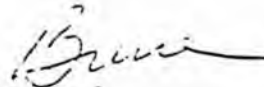
December 23, 1987

Circumventing the procedures for soliciting a professional services contract by requesting an exemption from Alaska Statutes not only leaves your department open to just criticism but also possible successful legal action.

Since this is a sole source contract there is no formal appeal procedure but I understand the complainant may contact you directly for a review, and because of this, it is considered closed in our files. I would suggest that if you have not already done so, your department take a long pause before proceeding with negotiations on this contact.

If this matter is not resolved after your review, the Office of the Ombudsman may consider investigating the significant issues raised by the complainant. If you have any question, please do not hesitate to contact me.

Sincerely,



Bruce Aronson
Acting Ombudsman

BCA:JRT:pjc

cc: Dale Young

✓Bev Reaume, Dir. Administration

Brian Allee, Dir. FRED program

FRED
1988 REPORT TO THE
ALASKA STATE LEGISLATURE
ON THE FUNDING OF THE
FISHERY ENHANCEMENT PROGRAM

Compiled by
Jerry Madden and
Jeff Hartman

Alaska Department of Fish and Game
Division of Fisheries Rehabilitation,
Enhancement and Development

Don W. Collinsworth
Commissioner

Brian J. Allee, Ph.D.
Director

January 1988

PUBLICATION ABSTRACT

TITLE/SUBTITLE FRED 1988 REPORT TO THE ALASKA STATE LEGISLATURE ON THE FUNDING OF THE FISHERY ENHANCEMENT PROGRAM		CONFIDENTIALITY <input checked="" type="checkbox"/> AVAILABLE TO PUBLIC <input type="checkbox"/> AVAILABLE TO LEGISLATURE ONLY
ABSTRACT (100 words maximum) This report has offered an overview of the legislative intent, stated in the FY 88 FRED Division budget, along with the results of the intent assignments. Solutions to the main task and analysis and implementation of innovative funding techniques have been included in the Results section of this report. The major conclusions include the following: The present and projected fish catches, as well as the net benefits and impacts of the statewide fishery enhancement program, are very large. The program is ultimately projected to generate benefits of \$90.0 million for the commercial fishery portion of the program. This results in an overall benefit-cost ratio of 1.4:1. The FY 89 budget as proposed by FRED Division would generate approximately \$35 million in personal resident income to Alaskans and 1,040 jobs. The analysis of the private nonprofit (PNP) enhancement program impacts project approximately \$40 million in personal income and 1,100 resident Alaskan jobs. This personal income and employment is distributed into many sectors of the Alaska economy. There was a clear consensus among fishermen user groups and in the Enhancement Funding Work Group that the FRED Division should receive full funding for hatcheries from the general fund as a first priority. A key issue in the funding discussions was whether primary users should pay a greater share of fishery enhancement than they do now. It is up to the Legislature to decide whether it wishes to continue to allow the benefits of the enhancement program to accrue to fishermen, or to encourage a greater user participation in the funding and decision making of state-sponsored enhancement. Finally, FRED Division believes this report should not be the end point for the funding investigation process. The division intends to continue the work group effort in designing longer term solutions.		SUBJECT CATEGORY <input checked="" type="checkbox"/> NATURAL RESOURCES <input type="checkbox"/> EDUCATION <input type="checkbox"/> SOCIAL SERVICES <input type="checkbox"/> HEALTH <input type="checkbox"/> TRANSPORTATION <input type="checkbox"/> LAW ENFORCEMENT <input type="checkbox"/> COMMERCE & INDUSTRY <input type="checkbox"/> GENERAL GOVERNMENT <input type="checkbox"/> LOCAL GOVERNMENT <input type="checkbox"/> OTHER
AGENCY (Dept./Div./Program) Dept. of Fish and Game, Div. of Fisheries Rehabilitation, Enhancement and Development		DOCUMENT CATEGORY <input type="checkbox"/> PERFORMANCE REPORT <input checked="" type="checkbox"/> FINANCIAL REPORT <input checked="" type="checkbox"/> PLANNING DOCUMENT <input type="checkbox"/> GRANT APPLICATION <input type="checkbox"/> PROMOTIONAL BROCHURE <input type="checkbox"/> CONTRACT <input checked="" type="checkbox"/> RESEARCH-STATISTICAL <input type="checkbox"/> TRAINING MANUAL <input checked="" type="checkbox"/> EDUCATIONAL/GENERAL INFORMATION <input type="checkbox"/> REGULATIONS/RIGHTS <input type="checkbox"/> RECOMMENDED LEGISLATION <input type="checkbox"/> OTHER
AGENCY ADDRESS P. O. Box 3-2000, Juneau, Alaska 99802-2000		DOCUMENT FORMAT <input checked="" type="checkbox"/> NARRATIVE <input type="checkbox"/> FINANCIAL STATEMENTS <input type="checkbox"/> MAPS <input type="checkbox"/> STATISTICAL CHARTS <input type="checkbox"/> PHOTOGRAPHS/ILLUSTRATIONS <input type="checkbox"/> COMPUTER PRINT OUT <input type="checkbox"/> BIBLIOGRAPHY <input type="checkbox"/> OTHER
SPONSORING AGENCY (IF APPLICABLE)		
AGENCY CONTACT FOR MORE INFORMATION Brian J. Allee, Director 465-4160 FRED Division, Juneau, AK		
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INTRODUCTION

At the end of the 1987 Alaska legislative session, lawmakers and fishermen became aware that the budget allocation for the Alaska Department of Fish and Game (ADF&G), Fisheries Rehabilitation, Enhancement and Development (FRED) Division would reduce funding for public hatcheries and cause the closure or "mothballing" of several others. To avoid the considerable economic dislocation that would result from such a major reduction in the ocean-ranching program, emergency-funding mechanisms were explored through a cooperative effort between the Legislature, FRED Division, and the private nonprofit (PNP) operators.

Further appropriations from the general fund were secured by the Legislature to operate some of the hatcheries scheduled for closure; however, FRED and the PNPs were encouraged to explore cooperative agreements that would provide supplemental funding for hatcheries lacking full general fund support. Because of this public-private aquaculture sector cooperation, all state hatcheries continued to operate for the short-term (FY 88) and a foundation was established for continuing the Alaska salmon enhancement program. The Legislature expressed its approval of this partnership and proposed eight intent statements:

1. It is the intent of the Legislature that the Fisheries Rehabilitation, Enhancement and Development Division, using up to \$150,000 in interagency receipts, will work with the Department of Corrections to develop a correctional industries program at division hatcheries. The division shall enter into a cooperative agreement with correctional industries for the use of inmates for on site non-skilled labor and for the processing of non-saleable excess fish for animal food and industrial products. A report on this program shall be submitted to the Legislature on the tenth day of the 1988 session.
2. It is the intent of the Legislature that the department, the Governor's Office, the aquaculture associations, the public, and fishermen's groups meet to develop innovative policies for the generation of revenues to offset the decreasing availability of General Funds. The department shall report its recommendations to the Legislature by the tenth (10) day of the 1988 session.
3. The budgeted Hidden Falls net barrier contract reimbursement fees are intended for use at the Hidden Falls Hatchery.
4. It is the intent of the Legislature that the division will work with the Department of Commerce, Division of Tourism, to promote tours of FRED Division

hatcheries, and that fees will be charged for such tours.

5. It is the intent of the Legislature that the program receipts required of the department shall include but not be limited to funds derived from the following sources: egg sales, hatchery tours, rent receipts and rainbow trout fingerling sales. The department shall work to develop and expand these revenue-producing activities.

6. It is the intent of the Legislature that the division enter into agreements with Cook Inlet Aquaculture Association, the Prince William Sound Aquaculture Corporation, and the Kodiak Regional Aquaculture Association to provide assistance in the operation of Tutka, Cannery Creek, and Kitoi Bay Hatcheries, respectively, on a cooperative basis. A report of this effort will be provided to the Legislature by the tenth day of the 1988 session.

7. It is the intent of the Legislature that the revenue producing activities ongoing at Tutka, Kitoi, and Cannery Creek will be evaluated as models for additional revenue generating activities with the intent of maintaining the state's continuing ownership, management and operation of FRED Division hatcheries. A report will be submitted to the Legislature by the tenth day of the 1988 session.

8. It is the intent of the Legislature that the division will increase its activities associated with maintenance of natural fish runs and will work with the Sport Fish, Commercial Fish, and Habitat Divisions to identify needs and develop projects.

This report is based on the following interpretations of the intent statements; however, the interpretations do not necessarily conform to their numerical sequence.

1. Form a more efficient statewide ocean-ranching program by sharing existing resources and functions with private non-profit agencies that will make the best use of limited investment resources;
2. Explore and evaluate the resources and potential of the state and PNP aquaculture programs;
3. Explore financing mechanisms for the FRED program that involve the users who are the primary beneficiaries of enhancement in the funding of worthwhile enhancement activities, now mostly supported by the general fund;

4. Develop mutually beneficial, programmatic, and economic arrangements between FRED Division and other agencies, within and outside ADF&G involved in ocean ranching and fishery development;
5. Where possible and over time, reduce the proportion of general fund expenditures into the program, but not at the expense of salmon harvests or the economic benefits of the program;
6. Ensure that program receipts generated by cooperative efforts at state agencies be directed towards maintenance or enhancement efforts of those facilities;
7. Maintain the economic net benefits of the existing enhancement programs by ensuring the continued existence of an effective and viable hatchery system owned and managed by the state; and
8. Expand the scope of cooperation between FRED Division and other ADF&G divisions in enhancing, rehabilitating, and developing new salmon runs.

The cooperative efforts of the Legislature, FRED Division, and PNP sectors have resulted in a commitment to maintain and maximize both public and private aquaculture in Alaska. To comprehend the full value of the aquaculture program to the Alaska economy, an understanding of the background and current status of the program is imperative.

THE BIOLOGICAL RATIONALE FOR OCEAN RANCHING IN ALASKA

Since the early 1900s, the dependence of salmon on favorable environmental conditions has led to dramatic fluctuations in fishing harvests that have produced an economically unstable fishing industry. The bust portion of the "boom-and-bust" cycle that has brought total salmon harvests to less than 30 million fish could be repeated in the future (Figure 1).

The FRED Division was formed in 1971 to carry out a program for improving opportunities for people involved in the salmon fishing industry. In 1974 the PNP hatchery program was created by the Legislature, allowing fishing groups and regional aquaculture associations to participate in ocean salmon ranching. Moreover, from 1974 to 1980, Alaska voters overwhelmingly passed general obligation bonds totaling \$63.4 million to fund construction and operation of FRED enhancement facilities.

Spawning and rearing habitat are subject to significant environmental fluctuations (e.g., floods, droughts, lethal temperatures, and water diversions) that negatively impact salmon survivals. The FRED and PNP programs were started because there

ALASKA COMMERCIAL SALMON HARVEST

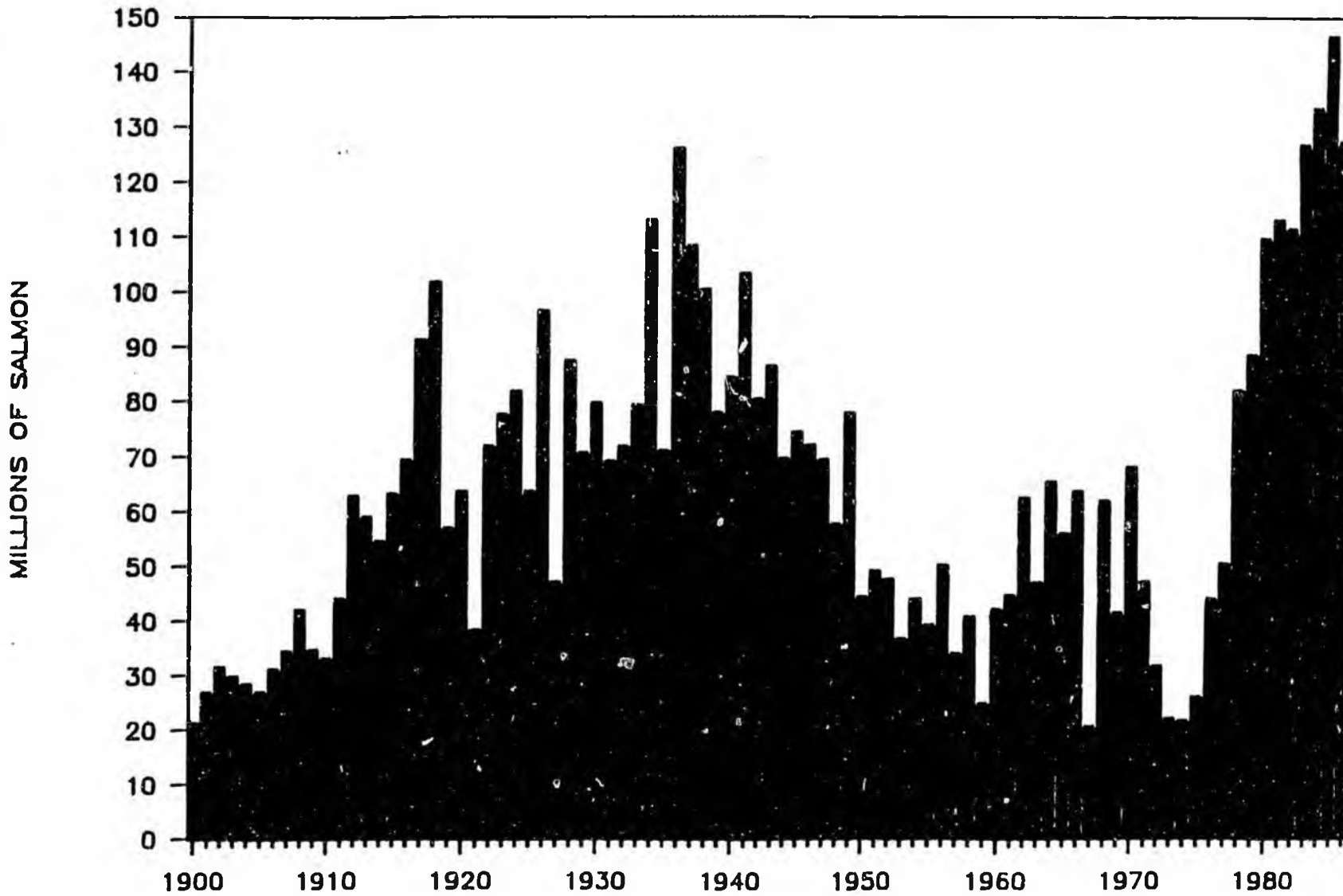


Figure 1. Alaska commercial salmon harvest from 1900 to 1986.

were alternative means of circumventing the problems associated with the dependence of salmon on streams, lakes, and nearshore estuaries. The economic opportunities for ocean ranching¹ depend on the unique ability of anadromous fish to eventually return to their natal streams. This natural phenomenon allows salmon populations to be efficiently enhanced by means such as fish hatcheries, fish ladders, and lake fertilization projects.

The enhancement program produces all five species of anadromous Pacific salmon, steelhead trout, and five species of resident fish, all of which contribute to commercial, sport, subsistence, and personal-use fisheries. The current enhancement portfolio includes 19 public hatcheries, 23 fish ladders, two spawning channels, and numerous enhancement projects that extend from the Noatak River in the Arctic to the City of Ketchikan in Southeast (Figure 2). The technical-services component to the statewide enhancement program is provided by the pathology, limnology, genetics, and coded-wire tag recovery laboratories within FRED Division.

In order to understand the magnitude of the Alaskan enhancement program, it is necessary to put it into a worldwide perspective. In 1987, Alaskan hatcheries took over 1.3 billion Pacific salmon eggs and over 10 million trout eggs. This makes Alaska's salmon ocean-ranching program the largest in North America; it is approximately one-half the size of Japan's program and roughly equal to the Russian program. The sockeye salmon enhancement program is the largest in the world; over 100 million eggs were taken in 1987. It is also the most technologically advanced program in the world.

The statewide production strategy for the ocean-ranching program has involved higher valued species being produced by FRED facilities, and lower valued species being produced by the PNP program. The distribution of these releases by species is depicted in Figure 3. The fishery enhancement program in Alaska has been a tremendous biological success. In some years the number of harvested salmon resulting from Alaskan fishery enhancement has exceeded both the natural and enhanced catch produced by the State of Washington, which is the nation's second-largest salmon producer after Alaska. Officials of ADF&G have estimated the returning adults from FRED hatcheries in 1987 totaled more than 6 million fish. Operators of PNP hatcheries estimated their total returns at more than 19 million fish in 1987. The combined state and PNP catch estimates equal approximately 26 million salmon in 1987 (Figure 4).

In FY 89 (brood year 1988) more than 600 million salmon, steelhead, and trout eggs will be taken at state-owned

¹ Salmon ocean ranching should not be confused with salmon farming, which is the captive or controlled culture of salmon in freshwater, estuarine, or marine environments.

ALASKAN HATCHERIES

STATE AND PRIVATE

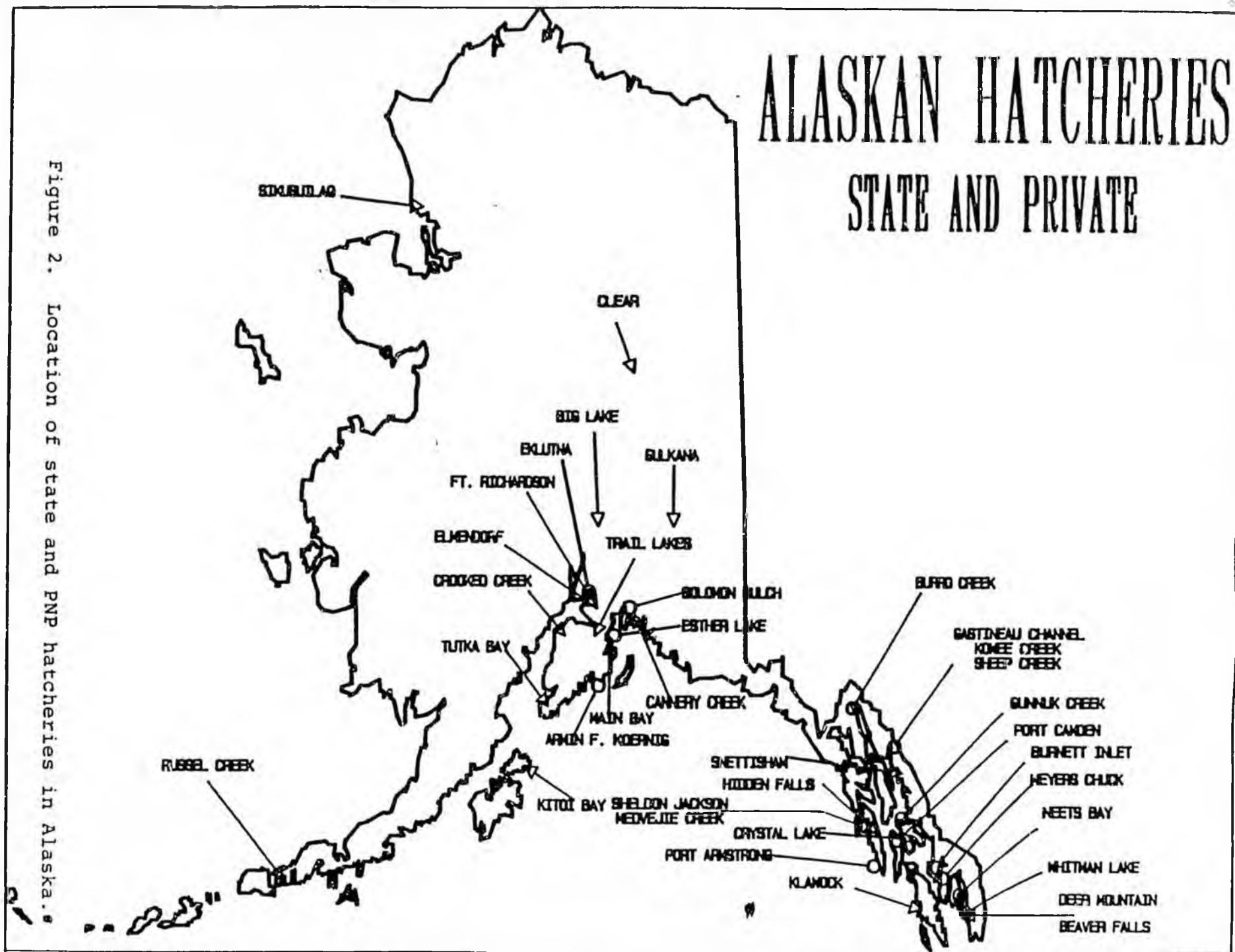


Figure 2. Location of state and PNP hatcheries in Alaska.

ALASKAN HATCHERY EGGTAKES 1987

SALMON

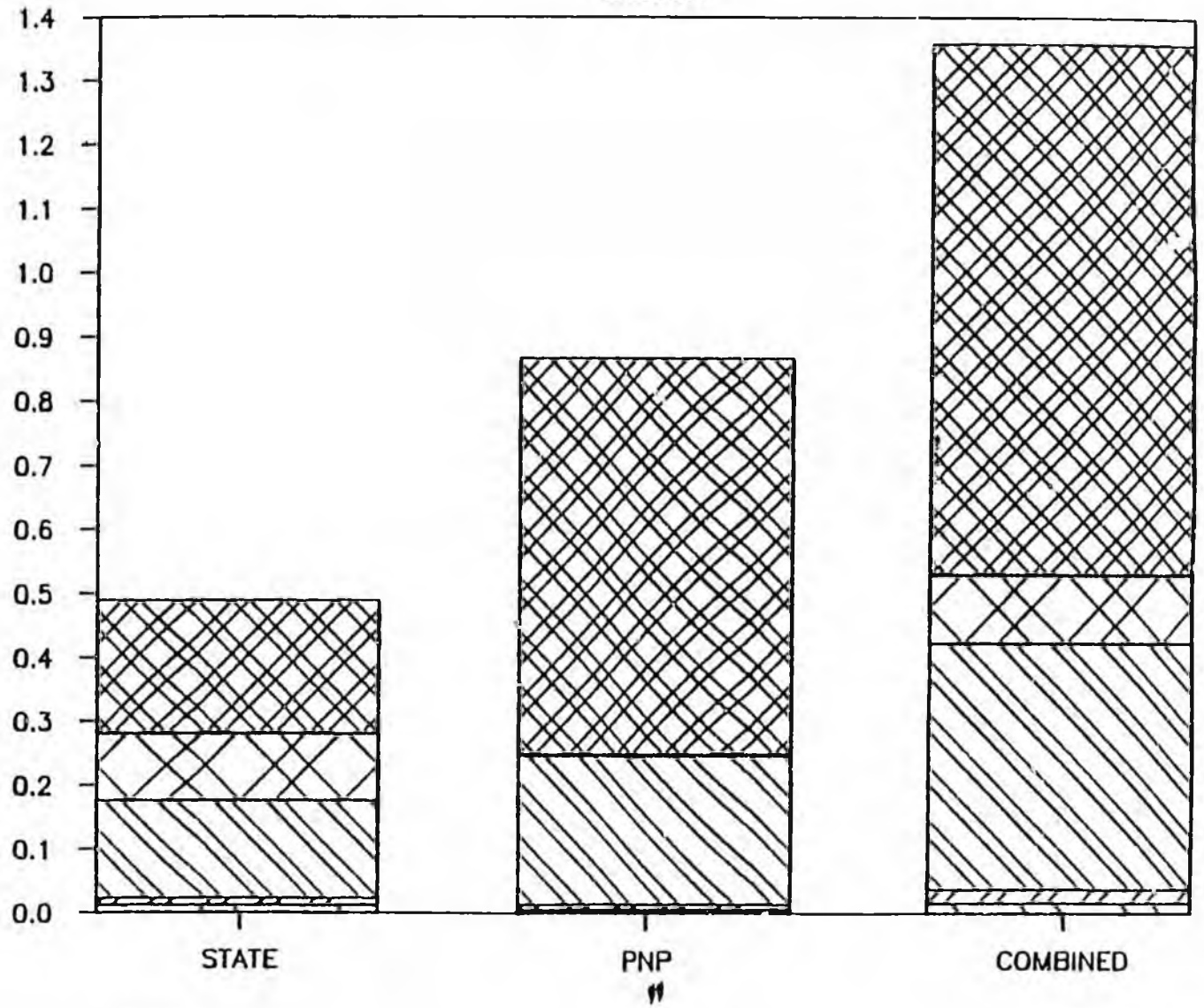
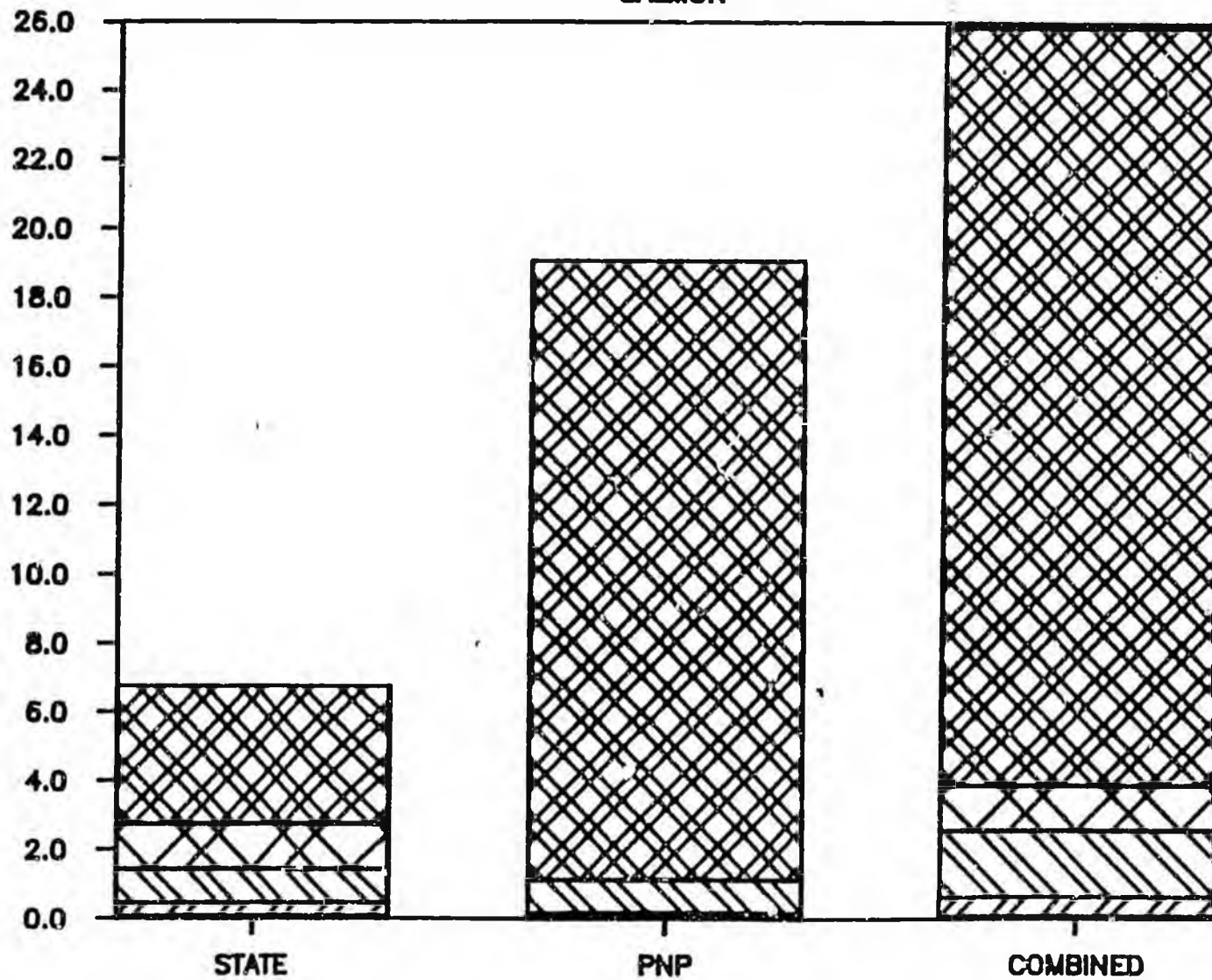


Figure 3. Alaskan hatchery egg takes for salmon in 1987.
BILLIONS
(Times 1E9)

CHINOOK
 COHO
 CHUM
 SOCKEYE
 PINK

ALASKAN HATCHERY RETURNS 1987

SALMON



CHINOOK

COHO

CHUM

SOCKEYE

PINK

Figure 4. Alaskan hatchery salmon returns in 1987.

(Millions)

hatcheries. The distribution of salmon egg takes is shown in Figure 5. This production level will result in approximately 11 million harvested adults in the commercial fishery (Figure 6). Substantial harvests will occur in the recreational fishery also.

For the PNP Hatchery program, salmon harvests in the commercial fishery are estimated by hatchery operators. The salmon catch estimates for returning adults from brood year 1988 egg takes equal approximately 23 million (Figure 6).

THE ECONOMIC RATIONALE AND ECONOMIC PERFORMANCE OF THE STATEWIDE OCEAN RANCHING PROGRAM

The 1987 legislative intent statements were proposed because FRED Division and the rest of Alaska's ocean-ranching program are in a funding crisis. In non-inflation-adjusted terms, budget cuts account for a 25% reduction in FRED Division's portion of the general fund since FY 85; in inflation-adjusted terms, FRED funding has been reduced by 30% since FY 85 (Figure 7). While the hatchery egg takes and fish releases have grown dramatically through this period, much of the potential expansion of the state program has been curtailed. Thus, the program has been left with a number of facilities that are being operated below their optimal level, leaving some hatcheries with unutilized incubator and raceway space.

The fish hatcheries and other enhancement activities of the FRED and PNP hatchery programs have been the subject of a variety of economic studies. These studies have been undertaken to ensure that maximal social and economic benefits are derived from Alaska's investment in salmon enhancement technology.

Of the collection of public investments available to Alaska, very few are able to improve the level of economic activity in the state by expanding the basic sector output of the economy. In this regard, salmon enhancement is very attractive because it offers improved efficiency and positive impacts produced by increasing the level of economic activity. Preliminary studies undertaken by ADF&G show that the FRED program is producing significant net benefits and impacts in the salmon industry and throughout the regional economies of Alaska.

The economic data presented here summarize two independent analytical techniques. The first technique is benefit-cost analysis, which is a very stringent accounting of social and economic benefits over the time horizon of the investment (in our case 25 to 35 years). This technique measures the efficiency of the investment by determining what consumers or producers would be willing to pay for an improvement in their welfare if they had to bear all the social costs.

ALASKAN STATE HATCHERY EGGTAKES 1988

ALL SPECIES

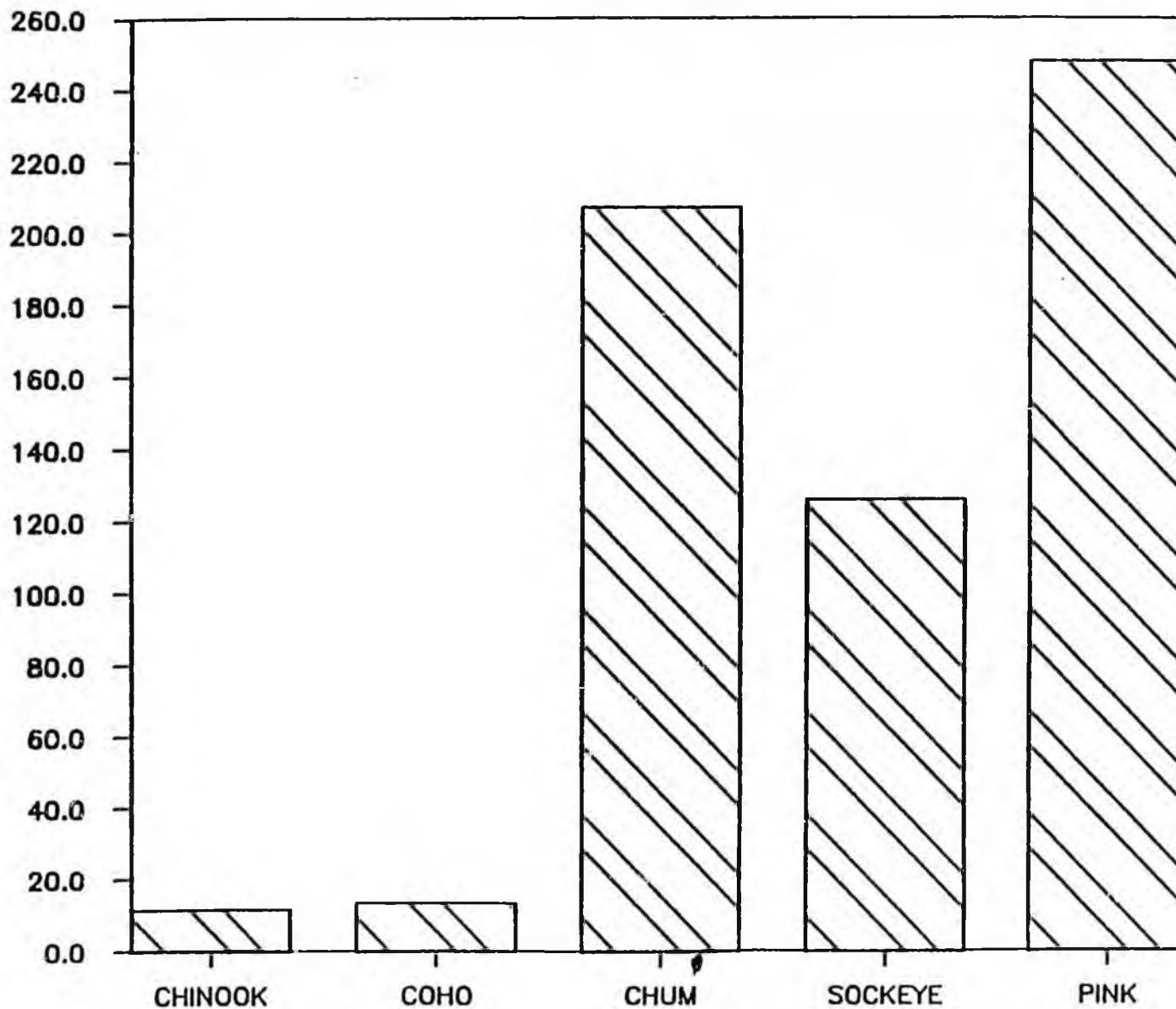


Figure 5. Alaska state hatchery salmon egg takes for 1988. Egg takes shown for salmon only.

ALASKAN HATCHERY HARVESTS 1988

SALMON

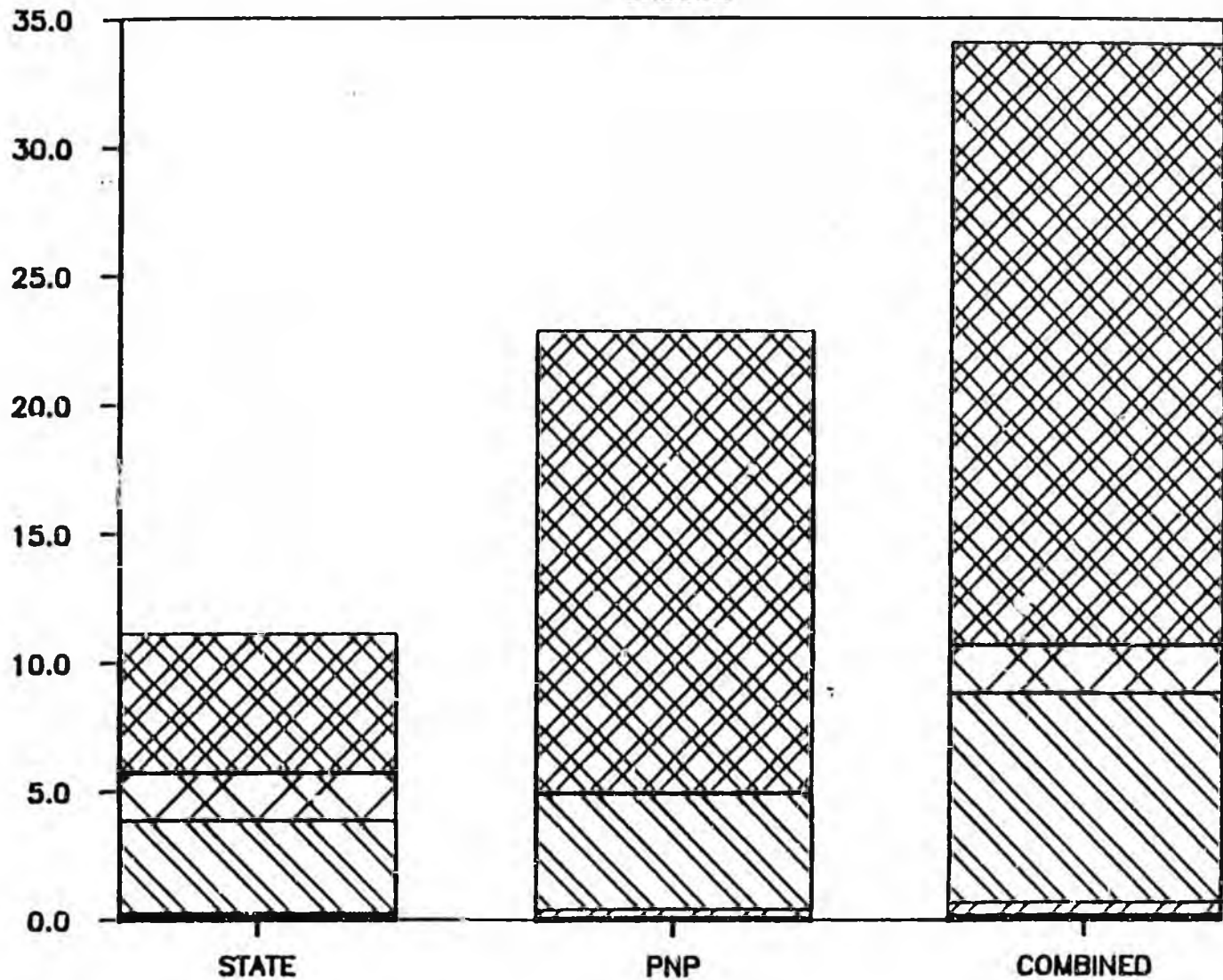


Figure 6. Projected harvests for salmon in the commercial fishery, by species for state and PNP hatcheries. Harvests result from eggs taken in 1988.

Figure 7. Estimated General Fund expenditures on FRED Division activities in non-inflation-adjusted terms and inflation-adjusted terms from FY 85 to FY 89.

Fiscal year	General fund expenditures FRED Division (millions of dollars) non-inflation adjusted ²	Percent reduction in budget non-inflation adjusted	General fund expenditures FRED Division (millions of dollars) inflation adjusted ¹	Percent reduction in budget inflation adjusted
1985	14.7069	0%	14.70690	0%
1986 Authorized	14.2696	3%	13.93878	5%
1987 Restricted	11.5917	21%	11.05893	25%
1988	10.9952	25%	10.36722	30%
1989 Proposed	11.0815	25%	10.32823	30%

¹ Source: Anchorage Consumer Price Index from John Boucher, Alaska Department of Labor, Division of Research and Analysis.

² Source: General Fund expenditures from ADF&G budget files.

The second technique, impact analysis, focuses on the distributional and multiplier effects of investments. Its results are usually expressed as expenditures, gross sales, personal income, and employment. All expenditures whether they constitute a social benefit or a cost are used for determining effects on personal income and employment. Impact assessment pays great attention to whom and/or what sectors and regions of the economy are receiving the impacts. The time horizon in impact analysis is very short, usually a year or a few years.

In this report, calculations of the economic value and impact of salmon harvests are reported as point estimates. Point estimates have been used to keep the reporting results simple. Projections of biological or economic systems are subject to variability and these point estimates are believed to fall within the expected bounds.

Estimates from a 1984 study for the Governor's Mini-Cabinet on Fisheries suggest that the program will ultimately generate net benefits of \$90.0 million (in 1984 dollars) for the commercial fishery portion of the program. This results in an overall benefit-cost ratio of 1.4:1. This means that \$1.40 in fish values will be generated for each \$1.00 expended, measuring all benefits and costs in dollars of equal value and discounting them as required to take into account the time at which they occur.

Decision makers are often interested in how fisheries investments or management policies may affect economic stability and development in various regions of the state. Impact models can determine the economic development that would occur from a change in gross sales of fisheries products resulting from an increase in catch or change in market prices. These impact models approximate the local economies by expressing relationships among business sectors of the economy. In 1986 this new analytical procedure was applied to the state's fishery-enhancement program to aid in the planning and budgeting processes. This was a first-of-its-kind analysis of resident employment resulting from the state's investments in salmon ranching. The model was designed and contracted through a cooperative effort with the Institute of Social and Economic Research (ISER) at the University of Alaska, Anchorage, and it projects large personal income and employment impacts resulting from the state-owned hatchery program. A recent simulation of the impacts of proposed FRED budgets for FY 88 revealed that receipt of \$10.9 million in general fund monies (full funding) would result in over 850 resident jobs and \$27 million in resident income. This represents from two to four times the level of impacts resulting from a typical expenditure of the state operating or capital budgets.

In 1987 the FRED Division began coordinating a new and greatly enhanced phase of fishery-enhancement impact analysis. The data collection and modeling effort have involved the biological,

fishery, and economic analysis of over 170 state and PNP enhancement projects. This analysis includes four complete, computer-generated data bases that are used in the on-going design of two new impact models and has involved a multiagency data-collection effort utilizing the cooperation of FRED staff, PNP operators, the Department of Commerce and Economic Development (DCED) enhancement loan office, Sport Fish Division, and ISER. The resulting improvements have allowed for a more complete economic evaluation of the FY 89 budget. The principal budget strategy is to move technologically sound hatcheries from public to private support and maximize the use of general funds to support developing technology. Since the budget maintains a functional hatchery program and allows a better utilization of hatchery space, the impacts are significantly improved over the previous year. The FY 89 budget proposed by FRED Division would generate approximately \$35 million in resident income to Alaskans as well as 1,040 jobs (Figure 8). The analysis of the PNP enhancement program impacts resulting from brood year 1988 are preliminary at this time; however, preliminary estimates project approximately \$40 million in resident income and 1,100 Alaskan jobs.

For the FY 89 budget analysis, a second impact assessment was developed on the basis of a "worst-case budget". This budget assumes that FRED Division would not be able to reprogram into other production funds available from contracting operations of some hatcheries to the private sector. The purpose of this economic analysis was to determine both the loss in gross revenues to fishermen and the loss in personal income and employment to Alaskans across the state if these funds were not available. The enhancement program reductions would result from a \$1.4 million decrease in general funds, which is the approximate savings in general fund monies from the contractual agreements with the private sector. If the budget were reduced by this amount, a large portion of the chum salmon production at the Snettisham facility would be eliminated along with much of the sockeye enhancement initiative at Snettisham, Main Bay, and Gulkana. The reduction in gross revenues to fishermen from this option is approximately \$9 million. The personal income lost to residents of Alaska is over \$6 million along with 100 jobs (Figure 9). Clearly, the reprogrammed funds have a significant effect on the welfare of Alaskans.

The recreational component of the impact analysis project involving the additional personal-income impacts from FRED Division's recreational-fishery projects will be completed early in 1988. The personal income and employment that results from these projects make a significant impact on the Alaskan economy. Anglers pay for tackle, boats, moorage, transportation, lodging, food and beverages, guiding, and other fishing-related needs. Businesses that provide goods and services to anglers provide jobs and buy inventory from other businesses that, in turn, provide jobs and buy from other businesses. The first level of expenditures from the recreational fishery projects appears to be

Figure 8. Economic Impact Simulation Results, Stratified by Region for the FY 89 Budget. The simulation assumes that budget to be equivalent to the FY 89 Request to the Governor.

HATCHERY IMPACT MODEL HATMOD VERSION I. (preliminary)	TOTAL STATE	SOUTHEAST	PRINCE WILLIAM SOUND	COOK INLET	KODIAK/ ALASKA PENINSULA	INTERIOR

INPUTS FROM PRODUCTION AND CATCH MODEL***						
FISH HARVEST FROM HATCHERY PRODUCTION (A)						
Request Case	11,438,768	4,259,361	3,735,548	2,637,597	754,812	51,450
VALUE OF CATCH (Thousand 1987 \$) (A)						
Request Case	\$37,333	\$23,312	\$5,382	\$7,605	\$884	\$150
HATCHERY PROGRAM BUDGET LEVEL (Thousand \$) (B)						
Request Case	\$15,037	\$6,894	\$919	\$5,264	\$1,160	\$801
IMPACT SUMMARY ***						
TOTAL IMPACT						
INCOME	\$35,242	\$16,807	\$5,114	\$11,297	\$1,432	\$593
EMPLOYMENT	1038	531	123	308	54	23
DIRECT IMPACT						
INCOME	\$24,297	\$11,492	\$3,985	\$7,319	\$1,049	\$453
EMPLOYMENT	572	287	71	162	36	16
INDIRECT IMPACT						
INCOME	\$2,813	\$1,437	\$277	\$914	\$145	\$41
EMPLOYMENT	108	60	12	28	6	2
INDUCED IMPACT						
INCOME	\$8,133	\$3,879	\$852	\$3,065	\$239	\$99
EMPLOYMENT	359	185	41	118	11	5
EMPLOYMENT IMPACT: FULL & PART TIME						
DIRECT	572	287	71	162	36	16
INDIRECT	108	60	12	28	6	2
INDUCED	359	185	41	118	11	5
TOTAL	1038	531	123	308	54	23
INCOME IMPACT						
DIRECT	\$24,297	\$11,492	\$3,985	\$7,319	\$1,049	\$453
INDIRECT	\$2,813	\$1,437	\$277	\$914	\$145	\$41
INDUCED	\$8,133	\$3,879	\$852	\$3,065	\$239	\$99
TOTAL	\$35,242	\$16,807	\$5,114	\$11,297	\$1,432	\$593
BANG PER BUCK ANALYSIS***						
IMPACTS PER \$1 MILLION OF STATE EXPENDITURE						
EMPLOYMENT	69	77	134	58	46	28
PERSONAL INCOME	\$2,344	\$2,438	\$5,568	\$2,146	\$1,235	\$0,740

Figure 9. Economic Impact Simulation Results, Stratified by Region for the FY 89 Budget. The simulation assumes that budget is reduced by \$1.34 million dollars over the FY 89 Request to the Governor.

HATCHERY IMPACT MODEL MATHMOD VERSION II. (preliminary)	TOTAL STATE	SOUTHEAST	PRINCE WILLIAM SOUND	COOK INLET	KODIAK/ ALASKA PENINSULA	INTERIOR

INPUTS FROM PRODUCTION AND CATCH MODEL***						
FISH HARVEST FROM HATCHERY PRODUCTION (A)						
Reduced Case	9,451,431	2,483,211	3,524,361	2,637,597	754,812	51,450
VALUE OF CATCH (Thousand 1987 \$) (A)						
Reduced Case	\$28,042	\$15,075	\$4,328	\$7,605	\$884	\$150
HATCHERY PROGRAM BUDGET LEVEL (Thousand \$) (B)						
Reduced Case	\$13,680	\$6,226	\$767	\$5,030	\$855	\$801
IMPACT SUMMARY***						
TOTAL IMPACT						
INCOME	\$29,249	\$11,930	\$4,392	\$11,049	\$1,285	\$593
EMPLOYMENT	852	379	105	300	45	23
DIRECT IMPACT						
INCOME	\$20,263	\$8,177	\$3,430	\$7,246	\$958	\$453
EMPLOYMENT	470	206	61	157	30	16
INDIRECT IMPACT						
INCOME	\$2,236	\$1,000	\$230	\$851	\$113	\$41
EMPLOYMENT	85	42	10	27	5	2
INDUCED IMPACT						
INCOME	\$6,750	\$2,753	\$732	\$2,952	\$214	\$99
EMPLOYMENT	297	131	35	116	10	5
EMPLOYMENT IMPACT:FULL & PART TIME						
DIRECT	470	206	61	157	30	16
INDIRECT	85	42	10	27	5	2
INDUCED	297	131	35	116	10	5
TOTAL	852	379	105	300	45	23
INCOME IMPACT						
DIRECT	\$20,263	\$8,177	\$3,430	\$7,246	\$958	\$453
INDIRECT	\$2,236	\$1,000	\$230	\$851	\$113	\$41
INDUCED	\$6,750	\$2,753	\$732	\$2,952	\$214	\$99
TOTAL	\$29,249	\$11,930	\$4,392	\$11,049	\$1,285	\$593
BANG PER BUCK ANALYSIS***						
IMPACTS PER \$1 MILLION OF STATE EXPENDITURE						
EMPLOYMENT	62	61	137	60	53	28
PERSONAL INCOME	\$2.138	\$1.916	\$5.727	\$2.197	\$1.503	\$0.740

end

approximately \$10 million. The completed project will estimate resident income and employment resulting from the direct, indirect, and induced effects of those expenditures.

METHODS USED TO ADDRESS THE LEGISLATIVE INTENT

The legislative intent statements were addressed by FRED Division as follows: 1) creating an enhancement-funding work group, 2) meeting with fisheries-enhancement constituents, and 3) reorganizing FRED Division.

Work Group

The work group² forum became one of the most important and revealing sources of information for this study. The working sessions reflected anxiety over the funding for state and PNP ocean-ranching programs. All of those who wished to be involved in addressing enhancement funding issues were invited to participate (see Appendix B). The initial objectives of the work group were threefold: (1) to solicit technical expertise within ADF&G as well as from agencies outside the department for reviewing legislative intent language and identifying strategies to meet that intent; (2) to analyze alternative financing mechanisms; and (3) to review the respective roles of the state and private ocean-ranching programs. The originally constituted group held two meetings to accomplish these tasks before the membership was broadened to include representatives from the private aquaculture sector and fishermen groups. During meetings of the expanded work group, funding options were more fully considered and specific roles of the public and private aquaculture sectors were identified and prioritized. The reorganization of FRED Division was a result of these meetings. Finally, the broad-based work group developed and approved the outline of the report to be presented to the Legislature.

Constituency Meetings

The FRED Division Director, Brian Allee, and/or staff met on at least 25 separate occasions with fishermen groups, regional salmon planning teams, and the general public (see Appendix C). During these meetings, Dr. Allee explained the legislative intent, how the division was addressing it, and how the intent and action it generated might impact the FY 89 proposed budget.

² The working group consisted largely of representatives of regional associations and fishermen groups although nonassociation PNP hatchery operators were also invited to attend.

Reorganization

During early winter, the FRED Division was reorganized to achieve clarity of purpose, program efficiency, and cost savings. Also addressed in the reorganization were the roles identified and prioritized for FRED Division during the September 1987 work group meeting. The thrust of the reorganization was a more decentralized management structure in which the regions report directly to the director. The benefits of this structure will be to increase communication, reduce the number of management layers in the headquarters and regional offices, and promote efficiency. The reorganization eliminated six middle management positions.

RESULTS OF THE WORKING GROUP ANALYSIS OF FUNDING METHODS FOR THE ENHANCEMENT PROGRAM

One of the major accomplishments of the working group was a comprehensive evaluation of the funding alternatives for fishery enhancement in Alaska. Participants concurred that specialized contracts, professional-service agreements, and select-service charges provide more probable short-term solutions to immediate funding shortfalls in the FY 89 budget. The more likely long-term solutions appear to be the Enhancement Authority and alteration in the allocation of existing taxes or license fees. The full list of the funding alternatives follows.

1. Taxes (long term):
 - a. Alter or increase Raw Fish Tax
 - b. Vessel Fuel Tax
 - c. Landings Tax
 - d. Enhancement Tax

2. License Fees (long term):
 - a. Entry Permit Renewal Fee
 - b. Terminal Area License Fee
 - c. Recreational Fishing License Fee
 - d. Subsistence/Personal Use License Fee

3. Authorities (long term):
 - Enhancement/Aquaculture Authority

4. Agency Service Charges & Other (short or long term):
 - a. FRED Division harvests terminal fish and sells
 - b. FRED Division sells live and dead eggs and fish
 - c. Charge for consulting fees of FRED
 - d. Visitor Fees
 - e. Public Donations
 - f. Rescheduling of debt on public hatcheries/use for operating costs

5. New Ownership/Leasing/Contracts (short term):
 - a. Transfer and Leasing of Hatchery Ownership
 - b. Cooperative Agreements
 - c. Contracting Harvest and Operations

General Information on Fisheries Taxes

Aside from the value of fisheries in Alaska and the economic activity (i.e., employment and personal income) generated from them, fishing also generates revenues directly to the state from taxes and licenses. In FY 87 these revenues equalled \$63.98 million, of which \$59.5 million went to the general fund and \$4.48 million to the fish and game fund. Revenues from hunting and trapping sources (e.g., license sales) have been excluded from these figures. Fishery revenues include fish taxes, marine-fuel taxes, fishing permits, fishing licenses, and other similar items. The revenues in 1987 represent an increase of over four times the same figures in 1977. Clearly, the fishing industry is a major contributor to Alaska's revenue base, and fishermen pay a significant portion of their income for the use of common-property resources.

While not part of the legislative intent, it is helpful to know how these revenues compare to fishery management expenditures. To conduct this comparison, two items were removed from the total fishery revenues to the general fund: 1) revenues dedicated to the private nonprofit organizations (e.g., salmon enhancement tax was \$4.4 million for FY 87) and 2) revenues received from federal sources (\$16.68 million in FY 87). The collection of salmon enhancement taxes helps to fund aquaculture associations and does

not represent unrestricted revenue to the state. Some of the federal monies that have been removed from the analysis are Alaska's share of Dingell-Johnson funds, which are derived from a national excise tax on recreational fishing equipment. In any case, fishery revenues, excluding revenues from these two sources, total \$42.86 million for FY 87 (Figure 10).

The total cost of managing fisheries in Alaska for FY 87 was determined by adding together the estimated portions of the budgets of ADF&G and several other state departments that are associated with fisheries management. Because many divisions and departments have multiple functions, it was difficult to separate costs associated with management of fisheries alone. Best estimates of the costs associated with fisheries were determined through discussions with staff in each department.

As might be expected, the greatest general fund expenditures are associated with ADF&G (\$34.2 million), followed by the Department of Public Safety (\$7.5 million), and DCED (\$2.1 million). The estimated total expenditures for all departments in FY 87 was \$45.2 million from general fund monies and \$64.3 million from all funding sources combined; when expenditures on Sea Grant and the Marine Advisory Program of the University of Alaska are added, the totals come to \$46.3 million and \$67.0 million, respectively.

A thorough review of the taxing alternatives was presented to users at meetings with the funding work group. All user groups were unanimously opposed to increasing taxes or license fees. There was some interest in developing legislation to change the allocation formulas to redistribute more of the funds into fishery enhancement. All groups were also opposed to closing state hatcheries. It was pointed out in the work-group meetings that changing the appropriation formula for the Raw Fish Tax does not create additional rents to the state treasury; it would only redistribute the revenues.

Specific Information on Funding Alternatives

Alter or Increase Raw Fish Tax:

The Raw Fish Tax is levied on processors and is based on the price paid for fish in the round. The funds are distributed into the general fund and appropriated by a specific formula into communities and the fish and game fund. Depending on the size of the annual catch, there is a potential for \$3 to \$5 million to be raised from a 1% increase in the tax. The tax is now reappropriated back to communities and the general fund. Members of the enhancement-funding work group suggested reviewing the funding formula to determine if the funds are being allocated in the appropriate manner.

Figure 10. Historical Fish and Game Revenues from FY 77 to FY 87.

HISTORICAL FISH & GAME REVENUES - UPDATED 12/2/87

REVENUE CODE	REVENUE TYPE	FY 87	FY 86	FY 85	FY 84	FY 83	FY 82	FY 81	FY 80	FY 79	FY 78	FY 77
(THOUSANDS OF DOLLARS)												
GENERAL FUND												
10020	FISH TAX-CANNED	4,666.0	3,496.9	3,621.2	3,506.0	4,364.1	8,390.1	5,917.8	4,322.9	6,767.7	5,327.1	3,836.3
10030	FISH TAX-DROBERRIES	12,916.3	10,079.3	9,233.0	7,100.0	11,318.7	3,677.7	10,963.6	7,612.7	3,286.4	2,365.3	1,882.4
10040	FISH TAX-FLOATING	9,064.8	7,328.0	4,780.5	6,406.0	4,673.9	3,349.0	3,846.1	2,789.8	1,721.1	444.2	317.4
100403	SALMON COMMERCIAL TAX	6,444.1	4,263.1	2,625.3	2,241.3	2,353.8	2,423.0	0.0	0.0	0.0	0.0	0.0
100404	SEAFOOD MARKET/BOY TAX	1,460.2	1,121.9	664.2	1,119.7	521.9	0.0	0.0	0.0	0.0	0.0	0.0
10230	RAINFUEL TAX	3,372.9	3,299.7	4,298.0	3,994.1	4,298.2	3,681.4	3,354.7	3,241.9	2,629.3	2,042.5	1,236.2
	TOTAL G. F. TAXES	37,882.3	31,779.1	26,350.2	26,263.1	28,296.8	28,943.2	24,776.2	17,887.3	14,546.3	10,369.1	7,561.5
101350	DUPLICATE LIC	1.5	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101370	COMMERCIAL FISH-RES	148.9	147.3	142.4	150.1	83.8	43.6	43.3	42.3	41.4	35.8	80.2
101380	COMMERCIAL FISH-RE	233.7	228.0	234.3	229.0	132.1	83.3	78.8	63.2	100.9	79.7	92.0
101390	COMM FISH-SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101400	COMM FISH-EXTENSION	1.3	1.8	1.8	6.4	3.9	2.9	2.3	1.1	2.3	6.2	10.3
101370	ENTRY FEE PERMIT	2,910.8	3,096.9	2,409.8	2,331.2	2,734.3	2,899.7	2,849.4	3,856.3	3,089.2	2,690.0	0.0
102093	PERMIT FEE	(10.0)	0.0	0.2	0.0	0.3	0.3	0.3	0.3	0.4	0.0	0.0
102020	HUNT LIC-RES	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102030	HUNT TRAP LIC-RES	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.6	3.8	4.8
102040	HUNT SPY FISH LIC-RES	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102050	HUNT TRP FISH LIC-RES	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.4	28.3	26.8	28.5
102060	HUNT LIC-HOMES	0.0	(1.4)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102100	HUNT TRAP LIC-HOMES	0.0	(0.3)	0.0	0.0	0.0	0.0	0.0	0.0	7.9	9.1	6.6
102130	MILITARY SPEC-ON GAME	0.0	(0.1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102150	BIG GAME TAG-RES	0.0	(0.4)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102160	BIG GAME TAG-HOMES	0.0	(6.7)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102170	TRAPPING LIC-RES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	4.4	4.1
102180	SPMT F & G DUP LIC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	5.7	5.4	4.7
	TOTAL G. F. LICENSES	3,288.6	3,449.3	2,790.0	2,714.7	2,954.6	3,029.8	2,974.3	3,171.4	3,366.3	2,243.2	231.2
100410	COMM FISH-RES S & D	333.3	435.7	386.9	321.4	177.7	91.3	94.4	96.9	91.1	83.7	120.6
100430	COMM FISH-RES S & D	538.0	318.6	331.0	312.0	299.7	174.3	164.4	143.6	131.0	120.0	138.1
100490	ENTRY FEE PERMIT	433.8	431.4	806.6	442.3	398.8	3.0	131.1	168.2	131.1	117.7	0.0
100590	FISH SALES	344.8	191.6	238.2	39.8	61.9	147.8	128.8	66.8	60.8	33.4	43.7
VARIOUS	FED. FUNDS(FISH RESTOR.)	16,676.6	6,338.3	5,238.9	7,868.3	6,491.2	6,473.1	633.1	426.6	713.6	871.2	824.3
	TOTAL G.F. RESTRICTED	18,325.9	8,156.6	7,295.6	8,424.2	7,626.3	6,893.9	1,173.0	864.1	1,169.6	1,246.0	1,126.9
	TOTAL GENERAL FUND	59,496.8	43,404.0	36,633.8	37,687.0	38,863.3	38,866.9	28,422.3	21,922.8	19,822.6	12,858.3	8,919.4
FISH & GAME FUND												
102000	PERMIT APP FEE	471.8	(207.0)	364.3	335.3	231.3	178.9	187.6	157.1	69.4	43.9	1.1
102010	SPORT FISH LIC-RES	1,925.2	1,008.8	1,034.7	983.2	1,029.8	646.9	883.8	818.8	833.9	763.7	501.8
102020	HUNT LIC-RES	291.4	291.6	319.9	317.7	296.3	276.7	263.3	263.3	267.6	253.8	133.1
102030	HUNT TRAP LIC-RES	38.1	43.1	44.1	38.7	38.4	38.1	34.7	29.4	23.6	23.2	14.0
102040	HUNT SPY FISH LIC-RES	822.8	893.6	923.7	854.2	875.8	589.6	699.0	627.2	650.7	645.9	586.1
102050	HUNT TRP FISH LIC	206.2	262.3	213.0	337.0	322.1	231.3	236.3	236.0	207.6	193.3	174.8
102060	VIST SPEC FISH LIC	997.8	946.1	789.5	698.8	643.3	338.0	326.2	491.5	441.6	348.7	273.6
102070	SPMT FISH LIC-RR	561.0	644.2	671.3	688.8	678.1	469.2	447.6	373.3	386.6	341.3	418.8
102080	VIST SPEC FISH LIC	363.9	366.6	263.1	257.0	268.0	261.3	249.7	238.3	216.8	211.3	116.1
102090	HUNT FISH LIC-RR	89.3	111.4	93.8	94.8	102.7	94.4	82.6	87.9	71.7	72.0	63.6
102100	HUNT TRAP LIC-RR	6.4	6.3	12.0	12.1	10.3	12.9	13.2	12.4	3.0	13.0	2.3
102110	VIST 1-DAY FISH LIC	566.8	467.0	423.3	371.3	146.9	96.9	89.1	78.7	76.9	38.1	2.6
102120	RIL SPEC FISH LIC	58.2	65.3	67.1	61.0	71.1	52.5	45.8	66.0	84.0	64.3	18.8
102130	RIL SPEC SMALL GAME	8.4	9.6	10.4	19.6	11.6	12.7	11.3	10.8	13.3	11.0	1.9
102140	RIL SPEC FISH SH ON	13.3	20.4	20.8	22.3	23.1	23.7	21.9	17.3	23.3	18.0	12.7
102150	BIG GAME TAGS-RES	164.0	181.2	167.1	171.3	163.4	186.4	181.2	91.4	94.5	92.4	16.7
102160	BIG GAME TAGS-RR	2,054.3	2,023.0	1,679.8	1,699.0	1,183.2	1,164.6	1,148.0	1,230.2	1,013.2	983.6	718.3
102170	TRAP LIC-RES	9.3	14.6	12.1	4.2	8.0	4.3	16.0	4.0	0.0	0.0	0.0
102180	F & G DUP LIC	10.3	9.2	10.3	9.0	7.4	6.3	6.8	8.0	0.0	0.0	0.0
102290	GUIDE LIC	0.4	3.0	3.4	2.6	1.6	3.6	2.7	6.9	0.0	0.0	0.0
102330	KING SALMON/STLM PERMIT	0.0	0.0	0.0	24.8	329.3	335.1	414.3	56.1	0.0	0.0	0.0
102320	WATERFOWL STAMP	134.4	198.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102330	TRAPPING-RES	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104750	REC SERV RECD	0.0	0.0	0.2	0.0	0.0	0.0	2.2	1.0	3.8	3.4	0.0
104860	SALE OF PRODUCTS	1.0	0.1	21.8	10.8	0.0	0.0	1.2	0.8	4.8	0.6	6.6
106370	RISC REVENUE	38.0	31.7	26.6	88.9	29.8	18.2	16.6	10.3	16.7	13.8	23.2
105040	JURNEMENT SETTLEMENT	0.0	120.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VARIOUS	FED. FUNDS(FISH RESTOR.)	0.0	0.0	0.0	0.0	0.0	10.3	3,881.7	3,729.3	4,400.8	4,287.3	3,370.9
	TOTAL F & G FUND	7,795.0	7,413.7	7,276.3	7,108.0	6,339.9	5,230.7	11,266.6	8,662.8	8,902.2	8,386.6	6,667.2
	GRAND TOTAL	67,291.8	50,817.7	43,912.3	44,312.0	43,225.4	44,097.6	39,698.1	30,585.6	27,924.8	22,246.9	13,586.6

SOURCE: BOB ELLIOTT (8443-2173) (R.S. 8406)
DEPARTMENT OF REVENUE-RESEARCH SECTION

* FED FUNDS INCLUDE FISH RESTORATION-P3 (57660), BILLIPE RESTORATION-P17 (57660), AND FL 09-304 (57690).

† FY 80 REPRESENTS A TRANSITION PERIOD WITH SIX MONTHS OF COLLECTIONS UNDER THE OLD TAX RATES

Increase the Amount of the Vessel Fuel Tax:

An increase in the vessel fuel tax could be applied to all fishing and nonfishing fuel purchases in the state. In 1986 the \$.05/gal tax yielded approximately \$5.3 million. The vast majority of these taxes are paid by the fishing fleet. All of the receipts from this tax currently go into the general fund. A significant change in the tax would be required to generate additional revenues of a couple of million dollars or more.

Landings Tax:

A landings tax for salmon would be similar to the Raw Fish Tax. Its main difference is that it would be levied directly on the fishermen instead of being paid by processors. The tax would be based on an assessment per pound of fish or per fish. The tax might be structured to vary by species harvested so that enhancement-produced species would be more heavily targeted. Since it would be a new tax, it would not be subject to the reallocation formula used for the Raw Fish Tax. As in the Raw Fish Tax, considerable revenue could be generated by this tax: \$1 to \$2 million a year of revenue is not an unreasonable estimate. This alternative is not supported by fishermen.

Increase and or Modify Enhancement Tax:

An aquacultural assessment is collected by the processor from the payment to fishermen for their catch and is automatically withheld by the processor. The tax then goes into the general fund, and is later appropriated to DCED, which then distributes the receipts back to the associations. One modification might be to distribute the tax directly to hatcheries. Some of the tax receipts might also be given to an enhancement authority for distribution. The estimated revenue for FY 87 is approximately \$2.8 million. A doubling of the existing assessment would yield \$5.6 million. This approach appears to have a low level of fishermen acceptance.

Increase the Commercial Fishing License Fee and Distribute a Portion of the Receipts to FRED Operations:

The Commercial Fisheries Entry Commission (CFEC) has investigated the feasibility of using the entry permit renewal fee as a mechanism to fund the Permit Buy-Back Program. Proposed legislation has been written by CFEC that could apply to the financing of any management or enhancement activity. This approach has also been implemented recently by the Canadian Department of Fisheries and Oceans for the Pacific salmon fleet. In FY 87 approximately \$2.9 million in renewal fees were collected. Obviously, a doubling of the renewal fee would produce large tax revenues. This approach appears to have a low level of fishermen acceptance.

Create a Terminal Area License Fee:

A terminal area license fee gives fishermen the alternative to fish in a controlled area of the fishery for a fee. This system would be different from other forms of cost recovery because the fisherman exercises his freedom of choice in making an economic decision of whether or not to enter the fishery. This system would be applied to areas that have a high portion of enhancement-produced fish; the area would only be open to users with valid entry permits. Another variation on the license fee would be to have fishermen bid for the rights to enter the fishery. Since this approach would be suited to sites with terminal-fishing areas or a high fraction of hatchery-produced fish, the amount of revenue that could be generated is small (relative to total program costs). To generate significant amounts, revenue license fees would have to be substantial. At \$1,000 each for 200 seiners at Hidden Falls, the program receipts would be on the order of \$200,000. This approach appears to have a low level of fishermen acceptance.

Increase the Recreational Fishing License Fee or Have a Supplemental Fee for Hatchery Fish and Earmark a Portion of the Program Receipts for FRED:

Existing studies on willingness to pay for nonresident sport fishermen in the Pacific Northwest indicate that these users are willing to pay far more for the rights to harvest Alaskan salmon. Currently, all license receipts are channeled into the Division of Sport Fish. Substantial revenue could be generated by a small increase in recreational fishing fees. In 1986, 308,472 sport licenses were sold. If we assume that 250,000 salmon fishermen would buy a \$5.00 salmon enhancement stamp, this would generate \$1.25 million in revenue. A bill for increasing general recreational user fees was submitted but not passed during the 1987 Legislative Session.

Create a Subsistence or More Aggressive Personal-Use License Fee:

Further study on this option is required. Subsistence and personal-use representatives were not present at the funding meetings. It is likely that there would be user opposition to the fee.

Creation of an Enhancement Authority:

A summary of the legislative work on a proposed enhancement authority has been compiled by Brad Pierce of the House Research Agency. The adaptation of existing statutes to produce a long-term funding solution for the state's ocean-ranching program would create a single, statewide public corporation along the lines of the Alaska Power Authority. The enhancement authority would combine the resources of the public and PNP hatchery systems. The authority would have revenue-generating and bonding powers and would be responsible for distributing the costs of the

ocean-ranching program as equitably as possible among user groups. The enhancement authority is seen as a long-term means of reducing the state's general fund contribution to enhancement activities. Pierce outlines several assumptions that must be shared by user groups before an enhancement authority mechanism could become politically acceptable. (Pierce, 1987, "The Enhancement Authority: A Long-Term Funding Mechanism for Alaska's Ocean-Ranching Program.")

Harvest of Fish by FRED and Direct Sale by Government:

Even the most careful directing of commercial fishery gear and sport fishing effort to salmon fisheries may result in sustained underutilization of some fish stocks. Stocks that are produced from state-owned hatcheries generally are fully exploited. A few hatchery stocks consistently have surpluses at the hatchery's terminal-harvest area or in freshwater locations. It is technically feasible for FRED Division to collect the fish in these areas. Collection would probably be similar to methods used for cooperative agreements at a few state facilities. Major objections have been voiced by the fishing community.

Selling Immature Fish and Fish Products (e.g., live fish and eggs to fish farmers, unripe eggs, and carcasses):

Spawned carcasses have economic value, and a range of contracts exist for competitive bidding on spawned fish. The state also sells green and eyed eggs to PNP operators for brood-stock development purposes.

Charge for Consultant Fees for Specialized Services of FRED Division (fish culture expertise, bioengineering, pathology, etc.):

It may be possible to implement some consulting fees, but there are administrative and program conflicts that suggest this option has limited potential to generate revenue.

Visitor Fees for Hatcheries (e.g., charge for tour companies, gate fees, hatchery literature, and fish food for hand-feeding low-risk lots of fish):

See page 18 Results section and Appendix A.

Create Mechanism to Accept Grants from Local Support Groups and Individual Donations:

Under AS 16.05.050, the Commissioner of ADF&G can accept these grants; however, the process should be clarified by the Attorney General's Office.

Reschedule Debt on Public Hatcheries/Use for Operating Costs:

Each year the state pays interest and principal on over \$50 million in bonds sold to build public hatcheries. This mechanism was investigated and determined to be administratively and legally difficult.

Transfer and/or Lease Hatcheries to PNP Ownership:

This mechanism is not intended to generate new revenue but to keep hatcheries from closing because of potential budget reductions and to maintain the social and economic net benefits to the state. The most obvious method of transferring hatchery ownership is an outright sale of the facility. PNP facilities have been granted the rights to produce, harvest, and sell salmon to recover the costs of operations. This cost-recovery arrangement would provide an alternative option to using general fund dollars for operational costs. Those specific conditions allow a somewhat stable financing of some of the PNP operations. Generating new revenue for the state treasury is not the intent of this mechanism.

This has been one of the more widely debated approaches to financing fisheries enhancement in Alaska. Legislation would be required to transfer hatcheries, and the Legislature will need to determine the appropriate course of action. Support for the approach seems to be mixed in the Legislature and among fishermen.

Cooperative Agreements:

In FY 88 the FRED Division is using a temporary financing mechanism called a "cooperative agreement" for operating some state-owned hatcheries. The mechanism also involves a contract between the regional association and limited-entry permit holders. The intent of this approach was to capture some of the revenues from the salmon harvest and channel them into the program receipts to help offset operating costs of the facility. The revenue generated by this approach was from 30% to 50% of the operating costs of the facilities.

Contracting Out Hatchery Operations and Harvest:

The most obvious method for contracting out hatchery activities is through a professional services contract (PSA). The PSA could be applied to either the operation of a state-owned hatchery, the harvest of fish from a state-owned hatchery, or both. The current thinking is that most PSAs would be applied to both hatchery operation and harvesting. The PSA would involve a small fee or no fee because the contractor would have a vested interest in the continued operation of the facility.

PROGRESS ON LEGISLATIVE INTENT ASSIGNMENTS

The FRED Division has addressed all eight legislative intent statements during the interim. Some of the concepts that have not been as effective as was hoped will be reviewed.

Harvesting of Surplus Fish by FRED at Hatchery or Other Enhancement Sites and Sale of the Fish to Various Public Agencies and Private Processors

The user groups view state harvest of hatchery fish for sale as direct competition.

Conducting Tours and Tourist-Related Activities at Hatcheries

These proposals have met opposition from municipalities and tour companies; however, this opposition is viewed as a temporary situation that may be alleviated by educating the opposing parties about the economic and program benefits. Currently, the FRED staff is consulting with the Division of Tourism to define a reasonable system of tours and fees (see Appendix A).

Sale of Carcasses

Some revenue has been generated, and it may be increased with better planning and advertising (see Appendix D).

Sale of Trout Fingerlings

Rainbow trout fingerlings could not be sold because they are produced for the sport fishery by federal funds.

Use of Correctional Institution Inmates on Site for Non-skilled Labor

Corrections institution residents were employed to assist at hatchery sites, and reports of results have been positive (see Appendix D). This is an outstanding example of interagency cooperation.

Shared Operations

The legislative intent statements have generated a renewed cooperative effort between ADF&G and the PNPs to maintain operation of state hatcheries. Kitoi Bay and Cannery Creek Hatcheries were operated because of supplemental funding from cost recovery of hatchery returns. Two seine boat owner associations contributed labor to place the barrier net at Hidden Falls Hatchery, and cost recovery was also used to pay for its operations. This net allows for separation of brood-stock in order to continue the early chum salmon run so valued by the fishermen in southeast Alaska.

Summary of 1988 Experiences

Generally, the positive experience from addressing legislative intent has provided the cornerstone for the FY 89 FRED Division budget strategy, which proposes to move operation of four hatcheries to the PNPs and yet keeps the state as owners and managers. The private-sector users are guaranteed a direct voice in cooperative planning and operations of the facility, yet continued state ownership assures that legal requirements for management, regulation, and use of capital construction bond funds are met. With the fishermen taking a more direct financial responsibility for operating hatcheries that are currently producing fish, FRED Division can use available general funds to address critical program inefficiencies, such as underutilized hatcheries and to develop sockeye salmon enhancement, which puts Alaska in a more advantageous economic position.

To comply with legislative intent, FRED Division proposed the use of contracts with regional associations. Without the contracts, the budget required for fish production in FY 89 would be at least \$1.3 million higher than the proposed FY 89 Governor's budget. The Legislature urged the public and private aquaculture sectors to attempt to keep in operation those hatcheries that ultimately would have been closed on July 1, 1987. For those legislators who place priority on hatchery production in their districts, it gave an additional opportunity to support those activities. These efforts provided guidance in exploring the options for short- and long-term relief to the general fund and in defined roles and responsibilities of the participants.

The enhancement funding work group addressed various options that were also discussed at meetings with PNP boards of directors, regional planning teams, and the public. From these discussions emerged three short-term and long-term solutions:

1. Contract operations of some commercial fish production hatcheries to the private sector. The state would retain ownership and management responsibility.
2. Review current use of raw fish tax revenue and make recommendations as to how that tax might be applied differently to relieve general fund support of fishery enhancement.
3. Further explore implementation of an Enhancement Authority on a regional or statewide basis.

As was previously stated, the FY 89 FRED Division budget proposed a short-term strategy developed after evaluation of state-private cooperative ventures, work-group efforts, and socio-economic considerations. Four hatcheries would be contracted to the private sector, allowing use of ongoing general fund appropriations to maximize existing state hatchery potential and

further sockeye salmon production technology that will contribute more to the state's economy. This approach allows the continuation of current salmon production and the increase of future production without increasing capital or operational expenditures of general funds. It provides recognition of the unique roles of the public and private aquaculture sector.

The legislative intent statements of almost nine months ago and the efforts of the enhancement funding work group have set the aquaculture sectors on a clear road. The state should continue to be ultimately responsible for the hatchery salmon enhancement program the people of Alaska mandated through legislation and bond referendums. The public and private sectors have distinct yet shared roles in aquaculture development and maintenance. The raw fish tax allocation should be reviewed as a source of fishery enhancement funding, and the salmon Enhancement Authority may provide a vehicle for future fiscal support of enhancement activities.

MAJOR CONCLUSIONS OF THE LEGISLATIVE INTENT STUDIES

This report has offered an overview of the legislative intent, stated in the FY 88 FRED Division budget, and the results of the intent assignments. Proposed solutions to the main task, which are analysis and implementation of innovative funding techniques, have been included in the "Results" section of this report. The major conclusions of this report follow.

The present and projected fish catches as well as the net benefits and impacts of the statewide fishery enhancement program are very large.

In the commercial fishery, the net benefits, or profits from these projects, accrue primarily to the fishermen who own limited entry permits; however, the impacts of the program ripple through the general state economy, and Alaskans in almost all regions of the state realize increases in personal income in not only the fishing sector, but also the fish processing sector, government sector, and through service, wholesale and retail trade sectors. The impacts in terms of personal income to resident Alaskans are greater than the dollar-for-dollar impacts of typical state expenditures from the general fund, capital projects, and the permanent fund disbursements.

There was a clear consensus among fishermen user groups and in the work group at large that the FRED Division should receive full funding for hatcheries from the general fund as a first priority.

Most work group members acknowledged that this was the most secure way of continuing the economic net benefits of enhancement projects.

A key issue in the funding discussions was whether primary users should pay a greater share of fishery enhancement than now.

Two contrasting opinions were discussed in the working group on this subject.

1. As noted in the result section of this report, fishermen groups were unanimously opposed to tax and license fee mechanisms that might increase their contribution to the state treasury for fishery enhancement. The regional association representatives and fishing leaders have pointed out that existing tax revenues from the fishing industry are already large and approximately offset general fund expenditures for fishery management and enhancement. Fishermen also assert that they are large contributors to the general fund, and there should not be additional fees imposed on them. The fishing leaders explain that any additional costs of fishing may impose financial hardships on a fleet already saddled with many costs.

2. The second view presented to the work group states that the salmon fishery is a common property fishery that belongs in part to all Alaskans. As with the royalty oil taxes, the residents of Alaska have a right to collect rents to the state treasury that are equal to or in excess of the amount required to manage and enhance the fishery or to find other methods of sharing costs of enhancement among the primary beneficiaries.

It is not the intent of the FRED Division or this report to suggest which view is appropriate. The Legislature has to determine the social and economic goals it wishes to achieve with fishery enhancement. The availability of funding for statewide enhancement as well as the net benefits from the state fishery enhancement program could be dramatically effected by legislative action on user financing. The timing is also critical in that a phased reduction of the General Fund with appropriate legislation will avoid a major discontinuity of the economic benefits of hatchery production.

The corner stone of this division's short term and incremental approach to future funding is the FY 89 proposed budget strategy of contracting operations of state hatcheries to the private sector.

The concept of contractual agreements in the FY 89 budget represents a small but significant shift toward a greater user participation in hatchery funding and hatchery decision making. They allow for greater user participation in financing in return for considerable additions in future harvests, net benefits to fishermen, and personal income and employment in Alaska's economy. These benefits derive from reprogramming funds that would otherwise be spent to operate conventional, commercial fish production hatcheries. None of the parties involved in the various meetings listed in Appendix C actively opposed the use of contracting out hatcheries to the regional aquaculture associations as a short-term solution.

The "Results" section of this report details the approach FRED Division will take to develop competitive bids for contracting hatchery operations. The success of this process will depend on legislative approval of the FY 89 budget, bidding/award procedures, the active interest of participating regional associations, and bids with no direct contract costs.

Since the contracts for state hatchery operation are innovative, legal or administrative obstacles may delay or stop the process. The fishing industry and the entire state economy would suffer both short- and long-term losses if the targeted hatcheries were shut down or other FRED programs were put in "mothball" status. Perhaps the Legislature could suggest other solutions to avoid these losses, such as an exemption from the new procurement code or an amendment to the PNP statutes.

Fulfilling the requirements of the FY 87 legislative intent has been a highly interactive and revealing process for all participants. On one hand, the interacting with varied interests in the work group as well as developing the analytical information, has allowed us to examine funding methods open to government. On the other hand, it has shown us that implementation of effective and innovative funding methods must be incremental in nature and will require patience and cooperation of government, user groups, and the Legislature. In the final analysis, it may be possible in FY 89 and, perhaps, FY 90 to promote increased user participation in funding fishery enhancement. Other measures have been taken to reduce FRED Division's dependence on the general fund and generate program receipts. However, in the short term, there remain no other legal and politically acceptable quick fixes that would result in larger scale reductions in FRED's operating budget without significant reductions in enhanced salmon production and considerable dislocation in the general economy.

The FRED Division believes this report should not be the end point for the funding investigation process. The division intends to continue work group effort in designing longer term solutions.

ACKNOWLEDGEMENTS

We would like to acknowledge all of the members of the Enhancement Funding Work Group for assisting in carrying out the legislative intent and completing this report. Special thanks to Brad Pierce, Ken Leon, and Sid Morgan for comments and editorial assistance and Shaleen Harrison for editing and typing the report.

MEMORANDUM

State of Alaska

TO: Tom Krom, Chief of Operations
Division of Fisheries Rehabilitation
Enhancement and Development
Department of Fish and Game

DATE: January 7, 1988

FILE NO:

TELEPHONE NO:

THRU:

SUBJECT: Fish Hatchery Site
Visitation

FROM: Mary B. Klugherz, Marketing Coordinator
Division of Tourism
Department of Commerce &
Economic Development

MK

RECEIVED

JAN 12 1988

**F.R.E.D.
ANCHORAGE REGIONAL OFFICE**

The purpose of this memo is to outline my preliminary observations and identify issues regarding the development of Crooked Creek Fish Hatchery and Elmendorf Fish Hatchery as revenue generating visitor facilities; These comments are based upon my discussions with you, Tim McDaniel and your staff at both these facilities, and my site visitation the week of December 14.

Overview

The Legislature has put intent language on your division's budget to work with the Division of Tourism to begin developing the potential for generating tourist receipts within the state hatchery program. Since many of the state operated hatcheries already receive many thousands of visitors each year, both resident and nonresident, program receipts generated as the result of a fee charged could represent several thousand dollars. In addition, these hatcheries are not marketing themselves as visitor facilities, yet are still attracting substantial numbers of visitors, particularly those on the highway system. It is within the realm of possibility that visitation of selected sites could increase dramatically with some basic marketing efforts. However, marketing these sites should not occur until basic visitor amenities are provided at these sites. The question then becomes, which sites should be targeted for potential development and what will be the cost for the development. In addition, how does your division collect fees both before and after development.

In our discussions, we reviewed the location and facilities of the state operated hatcheries and agreed to concentrate on those facilities on the

road system with large numbers of current visitors, and potential to attract more visitors. During my recent trip to Anchorage, I was able to visit the Crooked Creek Hatchery and the Elmendorf Hatchery. I will discuss each individually.

Crooked Creek Hatchery

This site, located approximately 12 miles south of Soldotna, receives approximately 50,000 visitors per year. This facility currently has no road signage, visitor parking, restroom facilities, or interpretive displays to speak of, yet still receives this large number of visitors each year, primarily between June and August. Visitors are both resident and nonresident, as many residents bring visiting friends and relatives to see the hatchery. This represents several hundred visitors each day.

The current situation at the hatchery, with this high visitation and no visitor facilities, raises several issues which the state should address. It is understandable that the state sees an opportunity here to generate revenue from the hatchery visitor. In order to charge for a visit, though, the facility should offer the visitor something - whether it is a self-guided tour with interpretive displays, or a tour guided by a knowledgeable individual. In addition, several improvements should be considered for both safety and ease of visitor flow. Among these improvements are a parking lot, restroom facilities and visitor paths.

During our visit, the manager of the Crooked Creek site indicated that several years ago a consultant was hired from Washington State to look at several hatchery sites and make recommendations for development of visitor facilities. The recommendations for Crooked Creek included drawings of a parking lot, pedestrian bridge, visitor information center and interpretive displays. These drawings and recommendations should be located and studied to see if they can be used today. In addition, costs associated with developing such facilities may be included to give an idea of investment capital necessary to pursue this direction. At a minimum, this facility needs a parking lot and restroom facilities, just to handle the current visitor volume.

Then there is the issue of generating revenue. Unless there is a controlled situation, where there is one entrance with an attendant to collect the fees, visitor donations must be relied upon. This could be as simple as a donation box with adequate signage requesting donations and explaining their use (i.e. donations help maintain the facility, etc.). The donation box must be in a secure place, so as not to encourage vandalism and theft. The recommended amount of donations or fees needs to be discussed as well.

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The Crooked Creek Hatchery site has tremendous potential as a visitor facility, but it is in desperate need of visitor facilities. It has the potential to accommodate more people than are currently visiting the site, with some minimum site improvements. It is up to the Department of Fish and Game as to whether the capital investment is worth the revenue generated.

Elmendorf Hatchery

This hatchery, located five minutes from downtown Anchorage, also has tremendous potential for visitor use. The site has no road signage, no interpretive displays, or restroom facilities. It does have a parking lot, however. The large viewing area for the waterfalls to observe the fish jumping is ideal for large groups of visitors. However, for safety, the area needs additional railing and handicapped accessible paths, as well as interpretive displays and perhaps a self-guided tour.

As with the Crooked Creek Hatchery, this site receives thousands of visitors (approximately 30,000), with no marketing efforts. Given its proximity to downtown Anchorage, this site's potential for visitor use is tremendous. Recommendations for visitor facility development were also made by the Washington State consultant regarding this site. These should be located and studied as well.

This site could immediately install a donation box in a secure area to begin to generate program receipts while it is undergoing further development.

Issues

During my site visitations and discussions with the staff, several issues came to mind with regard to the development of state operated fish hatcheries as a visitor attraction. The development of this resource into a visitor attraction has many positive benefits including providing additional visitor attractions, generation of program receipts and providing a means to educate the public (both resident and non-resident) about the state's valuable fisheries resource. Several concerns come to mind, however, which need to be addressed. These are as follows:

1. **Fee collection** - Until the fish hatchery facilities have a controlled situation, collection of a fee from individuals is very difficult. An interim measure is a donation box, located in a safe, secure area. To collect a fee, the facility should offer something to the visitor, such as a self-guided tour and interpretive displays at a minimum. In addition, basic visitor amenities should be provided (i.e. restrooms).

Who do you charge for fees? Visitors only? Visitors and residents? It is my understanding that many residents visit the fish hatcheries regularly. Do you charge them for each visit? Do you risk damaging relationships with local residents who may consider, as taxpayers, that they already support the hatchery? Other state agencies have faced a similar situation - that is, the need to generate revenues and have instituted fees (i.e. Alaska State Museum in Juneau). Lessons can be learned from these agencies by contacting them and discussing the challenges and issues they faced when initiating fees.

How much do you charge? What is the value of the experience? Do you charge adults one fee, children another, senior citizens another?

Requiring fees from tour operators who may feature a fish hatchery on an itinerary is a sensitive issue. While tour operators may understand the need for a fee to be charged, that fee gets passed along to the consumer and eventually increases the cost of the tour. As tour operators get charged more and more fees by state and federal agencies, the cost of tours increases and lends to the image that Alaska is a high-priced destination. In the long run this is not constructive for anyone in the industry. However, tour operators should be kept informed of the possibility that fees for fish hatchery visitation may be implemented. These operators should be encouraged to include the hatchery on itineraries and at the same time a negotiated agreement with regard to fees could be worked out. Ketchikan is a good example of a fee structure that meets everyone's satisfaction. In addition, the planning cycle for tour operators should be acknowledged when discussing fees. Most large operators are finalizing their summer 1989 tariffs (retail tour rates) by February and March of 1988. If operators are not informed until May 1989 that a fee for hatchery visitation for summer 1989 is to be charged, they will not only be upset, but also may drop the hatchery from the itinerary. This doesn't serve anyone's purpose.

2. Capital Investment Needed - It is clear that the two facilities visited need some capital improvements to serve current visitors as well as encourage increased visitation. In addition, due to the large number of visitors at Crooked Creek, without improvements or limitations on visitation, the state may be faced with a liability problem. Improvements can be made in stages, with the initial investment kept to a minimum and

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subsequent improvements made out of revenue generated. Whether money is available for improvements prior to revenue generation is a question which I can't answer. However, I would encourage creative solutions to this situation, (i.e. local service clubs providing assistance with project development, etc.).

3. Staffing - The current staff at the fish hatchery sites have become very involved in dealing with the visitor. Some enjoy it, some don't. Spending time with visitors may decrease the time the staff should spend on their primary function. The self-guided tour is one solution to this situation. Another is to utilize university students as guides - either tourism students or fisheries students. Train them and pay them out of program receipts. This could not only provide a positive visitor experience, but also valuable job training and experience for Alaska's future tourism and fisheries professionals.

Next Steps

Since most fish hatchery sites were not built with generating visitor traffic in mind, each site poses unique challenges. The following next steps are recommendations to the FRED Division for proceeding with these challenges.

1. Address issues - I've pointed out a few issues which need to be addressed in the context of each site. In addition, you may have identified additional areas of concern.
2. Previous Plan - It is important to find the previous consultants' visitor development plans for the facilities analyzed at that time. These plans may provide many answers to questions regarding improvements and costs.
3. Other States - There are several other states who have built fish hatcheries and incorporated visitor flow into their facilities (Oregon and Washington in particular). A review of their work would be worthwhile.

From these steps, you can formulate plans unique to each site which can be implemented soon. Focus must be kept on the main objective, which is to generate revenue through program receipts. Program receipts can't be generated without some site improvements. Once site improvements are made and a little marketing is done, program receipts should increase, therefore accomplishing the main objective.

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Appendix B.

ENHANCEMENT FUNDING WORK GROUP

Allee, Brian - ADF&G, Juneau.
Amend, Don, - Southern Southeast Regional Aquaculture Association, Ketchikan.
Blake, Bob - United Fishermen of Alaska, Cordova.
Bruce, Geron - United SE Alaska Gillnetters, Juneau.
Burkett, Bob - ADF&G, Juneau.
Cole, Bob - Representative Peter Goll's Office, Juneau.
Daisy, Dave - ADF&G, Anchorage.
Esquiro, Pete - Northern Southeast Regional Aquaculture Association, Sitka.
Good, Gale - Alaska Trollers Association, Juneau.
Graham, Kate - United Fishermen of Alaska, Juneau.
Hartman, Jeff - ADF&G, Juneau.
Heinkel, Harold - ADF&G, Juneau.
Holm, Oliver - Kodiak Regional Aquaculture Association, Kodiak.
Kron, Tom - ADF&G, Juneau.
Madden, Jerry - ADF&G, Juneau.
Massey, David - DCED, Juneau.
Mears, Tom - Cook Inlet Aquaculture Association, Soldotna.
Muse, Ben - CFEC, Juneau.
Pierce, Brad - House Research Agency, Juneau.
Schelle, Kurt - CFEC, Juneau.
Sele, Brad - ADF&G, Juneau.
Sommerville, Ron - Territorial Sportsmen, Juneau.
Suzumoto, Bruce - Prince William Sound Aquaculture Corporation, Cordova.
Troxell, Nick - Kodiak Regional Aquaculture Association, Kodiak.
Wright, Tom - Representative Swackhammer's Office, Soldotna.

Appendix C.

FRED DIVISION MEETINGS WITH CONSTITUENCY GROUPS

The following meetings with the listed parties were held during 1987 by Dr. Brian Allee, FRED Division Director, and/or FRED staff to discuss legislative intent on FRED funding.

- April 10 - Southern Southeast Regional Aquaculture Association (SSRAA) Board of Directors, Ketchikan, Alaska
- May 7 - Kodiak Public Meetings, Kodiak, Alaska
- May 15 - Kodiak Regional Aquaculture Association (KRAA) Board of Directors, Kodiak, Alaska
- May 16 - Cook Inlet Regional Aquaculture Association (CIAA) Board of Directors, Soldotna, Alaska
- June 6 - Prince William Sound Aquaculture Corporation (PWSAC) Board of Directors, Cordova
- August 30 - Interagency Enhancement Funding Meeting, Juneau, Alaska
- September 15/16 - Interagency/Fisherman Organizations Enhancement Funding Meeting, Juneau, Alaska
- October 2 - SSRAA Board of Directors, Ketchikan, Alaska
- October 12 - Northern Southeast Regional Aquaculture Association (NSRAA) Executive Committee, Sitka, Alaska
- October 13 - Prince William Sound Regional Planning Team, Cordova, Alaska
- October 14 - PWSAC Executive Committee, Cordova, Alaska
- October 15 - KRAA Board of Directors, Kodiak, Alaska
- October 15 - Kodiak Regional Planning Team, Kodiak, Alaska
- October 16 - Cook Inlet Regional Planning Team, Soldotna, Alaska
- October 17 - CIAA Board of Directors, Soldotna, Alaska
- October 20 - Northern Southeast Regional Planning Team, Juneau, Alaska
- October 21 - Southeast Gillnetters Federation, Juneau, Alaska

- October 22 - Southern Southeast Regional Planning Team, Ketchikan, Alaska
- October 23 - United Fishermen of Alaska, Anchorage, Alaska
- October 28 - Southeast Seiners Association, Seattle, Washington
- October 29 - Southeast Alaska Gillnetters, Seattle, Washington
- November 13 - NSRAA Board of Directors, Petersburg, Alaska
- December 2 - Enhancement Work Group, Juneau, Alaska
- December 8 - Bristol Bay Regional Planning Team and Bristol Bay Aquaculture Association, Public Meeting, Anchorage, Alaska
- December 9 - Public Meeting, Juneau Alaska

MEMORANDUM

State of Alaska

TO Bev Reaume
Director
Division of Administration

DATE December 13, 1987

FILE NO

TELEPHONE NO 465-4160

FROM Brian J. Allee
Director
Division of FRED

SUBJECT Compliance With
Legislative Intent

1. IT IS THE INTENT OF THE LEGISLATURE THAT THE FISHERIES REHABILITATION AND ENHANCEMENT DIVISION, USING UP TO \$150,000 IN INTERAGENCY RECEIPTS, WILL WORK WITH THE DEPARTMENT OF CORRECTIONS TO DEVELOP A CORRECTIONAL INDUSTRIES PROGRAM AT DIVISION HATCHERIES. THE DIVISION SHALL ENTER INTO A COOPERATIVE AGREEMENT WITH CORRECTIONAL INDUSTRIES FOR THE USE OF INMATES FOR ON SITE NON-SKILLED LABOR AND FOR THE PROCESSING OF NON-SALEABLE EXCESS FISH FOR ANIMAL FOOD AND INDUSTRIAL PRODUCTS. A REPORT ON THIS PROGRAM SHALL BE SUBMITTED TO THE LEGISLATURE ON THE TENTH DAY OF THE 1988 SESSION.

- o Inmate Work Program: The division entered into the agreement with the Department of Corrections to use minimum security inmates for on-site, non-skilled labor. A total of 12-14 inmates were involved in work at five separate sites.

Corrections Processing of Unsalable, Excess Fish: An agreement to supply food-quality salmon to the Department of Corrections did not materialize since it was primarily based on the harvest of sockeye salmon returning to Tustumena Lake. Unfortunately, the concept of state-sponsored cost recovery met with strong opposition from the Cook Inlet fishing industry. FRED Division did supply Corrections with good quality sockeye and coho salmon broodstock carcasses for experimenting with alternate food products. A total of \$50,000 was transferred from the Department of Corrections to FRED Division to compensate for joint-venture activities.

2. IT IS THE INTENT OF THE LEGISLATURE THAT THE DEPARTMENT, THE GOVERNOR'S OFFICE, THE AQUACULTURE ASSOCIATIONS, THE PUBLIC, AND FISHERMAN'S GROUPS MEET TO DEVELOP INNOVATIVE POLICIES FOR THE GENERATION OF REVENUES TO OFFSET THE DECREASING AVAILABILITY OF GENERAL FUNDS. THE DEPARTMENT SHALL REPORT ITS RECOMMENDATIONS TO THE LEGISLATURE BY THE TENTH DAY OF THE 1988 SESSION.

- o An interagency technical work group has been formed to address directly the issue of decreasing revenues. All parties listed in the intent were invited to participate.

The technical work group held two meetings to develop revenue alternatives. These alternatives were reviewed by the expanded group, including aquaculture associations and fishery user group representatives. Presentations were made to user group and aquaculture association board meetings and to regional planning teams. All participants reached consensus on content of an outline for preparing a report. The outline was the topic of two scheduled, advertised, and centrally located public discussions.

3. THE BUDGETED HIDDEN FALLS NET BARRIER CONTRACT REIMBURSEMENT FEES ARE INTENDED FOR USE AT THE HIDDEN FALLS HATCHERY.
 - o Under a cooperative agreement with the department, two southeast Alaska seine boat user group associations harvested \$95,469.90 worth of chum salmon. This amount was dedicated to operating the barrier net.
4. IT IS THE INTENT OF THE LEGISLATURE THAT THE DIVISION WILL WORK WITH THE DEPARTMENT OF COMMERCE, DIVISION OF TOURISM, TO PROMOTE TOURS OF FRED DIVISION HATCHERIES, AND THAT FEES WILL BE CHARGED FOR SUCH TOURS.
 - o Because the budget cycle begins essentially during the peak of the tourist season in Alaska, FRED Division was not able to organize and implement formal tour projects at hatchery facilities in the region during the first half of FY 88. FRED Division staff are currently working with the Division of Tourism to determine which hatcheries can accommodate tourist viewing systems and what fees are reasonable.
5. IT IS THE INTENT OF THE LEGISLATURE THAT THE PROGRAM RECEIPTS REQUIRED OF THE DEPARTMENT SHALL INCLUDE BUT NOT BE LIMITED TO FUNDS DERIVED FROM THE FOLLOWING SOURCES: EGG SALES, HATCHERY TOURS, RENT RECEIPTS AND RAINBOW TROUT FINGERLING SALES. THE DEPARTMENT SHALL WORK TO DEVELOP AND EXPAND THESE REVENUE-PRODUCING ACTIVITIES.
 - o Egg Sales: Eggs were sold from three hatcheries and will have generated \$63,202.75 when all funds have been received.
 - Hatchery Tours: Tours of two hatcheries will have generated approximately \$37,000 in donations or fees.
 - Rent Receipts: The FRED hatchery rental program is being operated in-house, and all receipts will be used to offset general funds to support the program.

Trout Fingerlings: All rainbow trout fingerlings are produced at FRED facilities supported by federal funding and cannot be marketed.

Carcass Sales: Carcasses were sold from five hatcheries. Income from carcass sales was approximately \$80,000.

6. IT IS THE INTENT OF THE LEGISLATURE THAT THE DIVISION ENTER INTO AGREEMENTS WITH COOK INLET AQUACULTURE ASSOCIATION, THE PRINCE WILLIAM SOUND AQUACULTURE ASSOCIATION, AND THE KODIAK REGIONAL AQUACULTURE ASSOCIATION TO PROVIDE ASSISTANCE IN THE OPERATION OF TUTKA BAY, CANNERY CREEK, AND KITOI BAY HATCHERIES, RESPECTIVELY, ON A COOPERATIVE BASIS. A REPORT OF THIS EFFORT WILL BE PROVIDED TO THE LEGISLATURE BY THE TENTH DAY OF THE 1988 SESSION.

- o Agreements were formalized with the three associations. Cooperative operations occurred at Kitoi and Cannery Creek Hatcheries allowing both to continue operating in spite of General Fund shortfalls, and each being filled to the maximum with eggs for FY 88. The Legislature determined to fund Tutka fully, so Cook Inlet Aquaculture Association did not participate.

7. IT IS THE INTENT OF THE LEGISLATURE THAT THE REVENUE PRODUCING ACTIVITIES ONGOING AT TUTKA, KITOI, AND CANNERY CREEK WILL BE EVALUATED AS MODELS FOR ADDITIONAL REVENUE GENERATING ACTIVITIES WITH THE INTENT OF MAINTAINING THE STATE'S CONTINUING OWNERSHIP, MANAGEMENT AND OPERATION OF F.R.E.D. DIVISION HATCHERIES. A REPORT WILL BE SUBMITTED TO THE LEGISLATURE BY THE TENTH DAY OF THE 1988 SESSION.

- o Through experience with Kitoi and Cannery Creek, the division has determined it can enter into long-term contracts with regional aquaculture associations to operate these hatcheries. Also under consideration is contracting-out operation for partial operation of Hidden Falls and Trail Lakes Hatcheries. Ownership would remain with the state, and major goals and objectives of the operations would be arrived at jointly through a management planning process approved by the Commissioner of the Department of Fish and Game. The specific terms of the contracts are still to be negotiated.

8. IT IS THE INTENT OF THE LEGISLATURE THAT THE DIVISION WILL INCREASE ITS ACTIVITIES ASSOCIATED WITH MAINTENANCE OF NATURAL FISH RUNS AND WILL WORK WITH THE SPORTFISH, COMMERCIAL FISH, AND HABITAT DIVISIONS TO IDENTIFY NEEDS AND DEVELOP PROJECTS.

- o The fishery division directors have scheduled a series of meetings to jointly review the fishery program of the three divisions and to examine areas where coordination

can be improved and conflict or duplication eliminated. These meetings include presentations on ongoing projects and proposed changes, discussion of issues and differences, and examination of future joint efforts to address fishery unit needs.

Bev, I hope this meets the needs for your coordinated response. If you have questions, contact me or Jerry Madden.

cc: Jerry Madden

HOUSE LABOR AND COMMERCE COMMITTEE

ALASKA STATE LEGISLATURE


P.O. BOX Y, JUNEAU 99811

(907) 465-3892

February 25, 1988

M E M O R A N D U M

To: Representative Sam Cotten, Co-Chair
Representative Adelheid Herrmann, Co-Chair
House Resources Committee

From: Representative Dave Donley, Chair 
House Labor and Commerce Committee

Re: HB 454 - Operation of state hatcheries

On Tuesday, February 23, the House Labor and Commerce passed out a committee substitute for HB 454, relating to the operation of state hatcheries. The measure is now before the House Resources Committee.

HB 454 authorizes the state to contract out the operation of state owned hatcheries to regional non-profit associations. As explained to our Committee, there are currently four hatcheries whose operating costs are not included in the FY 89 budget. Without passage of HB 454 and the opportunity for contracting with private non-profits, we were told that these hatcheries would be closed, resulting in the loss of the facility to the state and loss of jobs currently held by state employees who work for the hatcheries.

The House Labor and Commerce Committee responded to the urgency of the issue by passing out HB 454 so that it could be considered by the Resources Committee in a timely manner. However, we did so with extreme reservations about the question of "privatization" of state facilities and the effect on current state employees.

A representative from the APEA offered an amendment to HB 454 that would have required private non-profits to give a hiring preference to state employees displaced by the transfer of the operation of a state-operated facility to the private sector. Our Committee chose not to adopt the proposed amendment because of significant legal questions over imposition of a hiring preference on private non-profits and the sense of urgency described above.

Therefore, I am submitting this letter at the request of the Committee so that the record is clear that we do not endorse the wholesale "privatization" of state facilities without clear statutory guidelines that include protection for current public employees.

To further complicate matters, the Senate version of HB 454 (SB 410) was before the Senate today, held over from the February 24 calendar because

of debate over the question of requiring a hiring preference for displaced workers. SB 410 passed unanimously without amendment but with a Letter of Intent offered by senators Eliason and Duncan that addresses the issue of displaced workers. We understand that the APEA representative has withdrawn their request for the hiring preference amendment in lieu of the Senate Letter of Intent.

SB 410 should come to the House early next week and will be referred directly to the House Resources Committee. The House Labor and Commerce Committee urges the House Resources Committee to adopt the Senate Letter of Intent with the additional language (as per attached) directing the Department to retain displaced workers for deployment in other hatcheries.

LETTER OF INTENT FOR CS SB 410 (Resources)
Offered by Senator Eliason and Duncan

It is the intent of the Legislature to encourage any entity which enters into a contract with the state to operate a state hatchery, to hire the employees who were laid off from the hatchery as a result of assumption of operation by the contractor. Those state employees not hired by the new operator should be retained by the Department and redeployed to provide better management of our renewable fisheries resources.

HOUSE COMMITTEE REPORT

(7)

Date referred: 2/10/88

FURTHER REFERRALS:

Resources

DATE: 2/23/88

The Labor & Commerce Committee has considered HB 454

"An Act relating to the operation of state hatcheries; and providing for an effective date."

RECOMMENDS:

- replace with SHB454 (L&C) the same title
- attached amendment(s) a new title
- do pass
- do not pass
- no recommendation
- individual recommendations
- additional referral to the _____ Committee

ADOPTS: _____ letter of intent

ATTACHES NEW FISCAL NOTE(S):

- fiscal impact same as previous fiscal note published _____
- zero fiscal note same as previous zero fiscal note published _____
- zero with analysis

SIGNING DO PASS:

SIGNING OTHER RECOMMENDATIONS:

Cliff Davidson

Steve Korman

John Ellis

W. F. Moore no rec

Paula ... no rec

David ... no rec

David ...

Chairman's signature

FISCAL NOTE

REQUEST:

Revision Date: 2/22/88
Title: An Act relating to the operation of state hatcheries
Sponsor: Eliason
Requestor: Eliason

Agency Affected: Fish and Game
BRU: FRED
Components: _____

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93
PERSONAL SERVICES	0	0	0	0	0	0
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL	0	0	0	0	0	0
REVENUE						



FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	0	0	0	0	0	0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS : (Attach a separate page if necessary)

Prepared by:  Phone: 465-4160
Division: F.R.E.D. Date: 2/22/88
Approved by Commissioner:  Date: 2/22/88
Agency: Fish and Game

- Distribution (by preparer):
- Legislative Finance
 - Legislative Sponsor
 - Requestor
 - Office of Management and Budget
 - Impacted Agency(ies)

REPRESENTATIVE
BEN GRUSSENDORF

P O Box 928
SITKA, ALASKA 99835
(907) 747-8458

RULES COMMITTEE
LEGISLATIVE COUNCIL

DISTRICT 3
ELFIN COVE
PELICAN
PORT ALEXANDER
SITKA
TENAKEE

Alaska State Legislature



WHILE IN JUNEAU
P O Box V
JUNEAU, ALASKA 99811
(907) 485-3824
(907) 485-3720

House of Representatives
SPEAKER OF THE HOUSE
MEMORANDUM

To: Rep. Dave Donley
Chairman
House Labor & Commerce Committee

From: Rep. Ben Grussendorf
Speaker of the House

Date: February 22, 1988

Subject: Proposed committee substitute for House Bill 454
"An Act relating to the operation of state hatcheries."

Attached to this memorandum is a proposed substitute for House Bill 454, a measure authorizing the Commissioner of Fish & Game to contract for the operation of state-owned hatcheries that the department has determined it can no longer operate. The bill provides that the aquaculture association located in the same region as an affected hatchery will be given a preference right in the operator selection process. Should a regional aquaculture association be unable to meet the criteria established by Fish & Game, the department would then select an operator through the procurement process provided for in AS 36.30.

The proposed substitute for House Bill 454 differs only slightly from the original. The substitute allows the Commissioner of Fish & Game to waive the submission of an application for a permit to operate a hatchery. This lengthy permit process is normally required prior to the opening of a new hatchery, a situation not contemplated by this legislation. The substitute bill also deleted the word "transfer" from section one, and instead uses the phrase "provide for" the operation of the hatchery. This change clarifies the fact that the State of Alaska

retains all ownership rights in the hatchery, as well as the right to manage the resource.

House Bill 454 and Senate Bill 410 are an appropriate response by the Department of Fish & Game to intent language placed in the FY 1988 budget that required the department to develop ways to relieve the burden on the general fund caused by state hatchery operation. If the Legislature enacts either bill in short order, the Department of Fish & Game will have enough time to contract for the operation of some hatcheries prior to the start of Fiscal Year 1989, and more importantly before the Spring salmon runs. With the provisions in the legislation which allow operating cost recovery through the limited harvest of excess salmon, at least some of the new operators will be able to begin operation with no impact on the general fund in FY 89.

I hope the House Labor & Commerce Committee will consider this proposed substitute for adoption and will act on the legislation in an expeditious manner.

5-1885B
Bannister
2/22/88

Original sponsors: Grussendorf and Sund

1 IN THE HOUSE

2 CS FOR HOUSE BILL NO. 454 ()

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 FIFTEENTH LEGISLATURE - SECOND SESSION

5 A BILL

6 For an Act entitled: "An Act relating to the operation of state hatcher-
7 ies; and providing for an effective date."

8 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

9 * Section 1. AS 16.10 is amended by adding a new section to article 8
10 to read:

11 Sec. 16.10.480. CONTRACTS FOR THE OPERATION OF STATE HATCHERIES.

12 (a) If the department determines that it is unable to continue op-
13 erating a state-owned hatchery or that it is in the best interest of
14 the state to provide for the operation of the hatchery by another
15 person or by another person in cooperation with the state, the depart-
16 ment may enter into a contract for the operation or cooperative opera-
17 tion of the hatchery.

18 (b) Notwithstanding AS 36.30, when selecting a contractor under
19 (a) of this section, the department shall give a preference to the
20 regional association organized under AS 16.10.380 that is located in
21 the region in which the hatchery is located. If the department deter-
22 mines that the preferred regional association does not meet the crite-
23 ria established by the department for the contract, the department may
24 not award the contract to the preferred regional association and shall
25 procure the contract under AS 36.30 after considering the recommenda-
26 tions of the preferred regional association.

27 (c) A contract entered into under this section must provide that
28 the hatchery will be operated under AS 16.10.400 - 16.10.445 and
29 16.10.460 - 16.10.470 and the regulations adopted under those

1 sections.

2 (d) The department may issue to a contractor who operates a
3 hatchery under this section a permit to harvest adult salmon during
4 the term of the contract in a quantity sufficient to allow the con-
5 tractor to recover all or part of the contractor's costs of operating
6 the hatchery.

7 (e) A contract under this section for the operation of a
8 hatchery may not affect the state's ownership of the hatchery and does
9 not affect the state's responsibility to manage the resource.

10 * Sec. 2. AS 16.10.400(a) is amended to read:

11 (a) The commissioner or a designee may issue a permit, subject
12 to the restrictions imposed by statute or regulation under AS 16.-
13 10.400 - 16.10.470, to a nonprofit corporation organized under
14 AS 10.20, after the permit application has been reviewed by the re-
15 gional planning team, for

16 (1) the construction and operation of a salmon hatchery;

17 (2) the operation of a hatchery under AS 16.10.480.

18 * Sec. 3. AS 16.10.400(b) is amended to read:

19 (b) The application for a permit under this section shall be on
20 a form prescribed by the department and be accompanied by an applica-
21 tion fee of \$100. The commissioner may waive the submission of an
22 application for a permit to operate a hatchery under AS 16.10.480.

23 * Sec. 4. AS 16.10.400(e) is amended to read:

24 (e) A qualified regional association formed under AS 16.10.380,
25 if it has become a nonprofit corporation under AS 10.20, has a prefer-
26 ence right to a permit under (a)(1) of this section if its proposed
27 hatchery is provided for in the comprehensive plan for that region
28 developed under AS 16.10.375 and the fresh water source exceeds one
29 cubic foot per second minimum flow. Another [ANY OTHER] local

1 nonprofit hatchery corporation approved by a qualified regional asso-
2 ciation has an identical preference right.

3 * Sec. 5. AS 16.10.410(c) is repealed and reenacted to read:

4 (c) The hearing shall be conducted by the department. At a
5 hearing for a permit under AS 16.10.400(a)(1), the applicant shall
6 present a plan for the proposed hatchery, describing the capacity of
7 the hatchery and other relevant facts that may be of interest to the
8 department or the public. Interested members of the public shall be
9 afforded an opportunity to be heard.

10 * Sec. 6. AS 16.10.450 is amended to read:

11 Sec. 16.10.450. SALE OF SALMON AND SALMON EGGS BY HATCHERY.

12 (a) Except as otherwise provided in a contract for the operation of a
13 hatchery under AS 16.10.480, a [A] hatchery operator who sells salmon
14 returning from the natural waters of the state, or sells salmon eggs
15 to another hatchery operating under AS 16.10.400 - 16.10.470, after
16 utilizing the funds for reasonable operating costs, including debt
17 retirement, expanding its facilities, salmon rehabilitation projects,
18 fisheries research, or [FOR] costs of operating the qualified regional
19 association for the area in which the hatchery is located, shall
20 expend the remaining funds on other fisheries activities of the qual-
21 ified regional association.

22 (b) Fish returning to hatcheries and sold for human consumption
23 shall be of comparable quality to fish harvested by commercial fisher-
24 ies in the area [,] and shall be sold at prices commensurate with the
25 current market.

26 * Sec. 7. This Act takes effect immediately under AS 01.10.070(c).
27
28
29



The five incubation boxes at 31 Mile Creek on the Klehini River have a capacity of 850,000 chum eggs. Egg to fry survival in 1986-87 was 95 per cent.



Photo by Carl Peterson

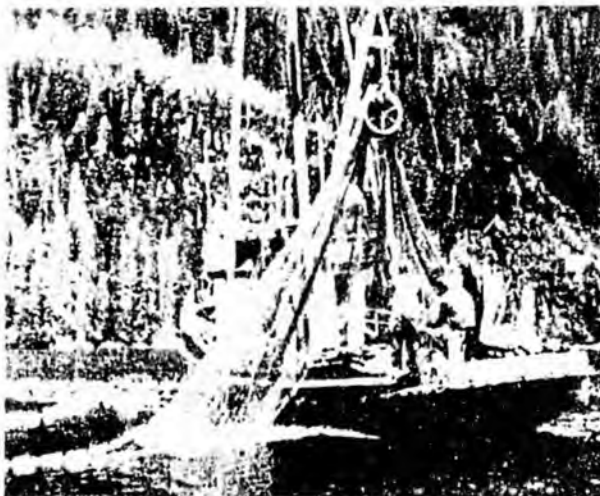


Photo by Hans Wienberg

NSRAA



Northern
Southeast
Regional
Aquaculture
Association

103 Monastery Street
Sitka, Alaska 99835
(907) 747-6850

NSRAA Projects

Project	Projected Returns at Capacity
Medvejie Hatchery	25,000 chinook 90,000 chum
Deep Inlet Release Site	720,000 chum
Coho Lake Rearing	50,000 coho
Takatz Bay Release Site*	720,000 chum
Haines Spawning Channel	20,000 chum
Haines Incubation Boxes	8,000 chum
Port Camden Incubation Boxes	100,000 chum
Slippery Creek Stocking*	coho unknown
St. John Creek Stocking*	coho unknown
Redoubt Lake Incubation	sockeye unknown
Earl West Cove*	12,000 chinook 16,000 coho 240,000 chum

*Cooperative Projects

Northern Southeast Regional Aquaculture Association (NSRAA) is a private non-profit cooperative established to increase salmon returns to benefit commercial and other users. NSRAA was established through an election of limited entry salmon permit holders where the majority voted in favor of establishing the Association and taxing themselves 3 percent of their gross landings to support the organization. All limited entry permit holders in Southeast Alaska are members of NSRAA. Revenues collected through the enhancement tax are passed from the State to NSRAA.

NSRAA has a mix of enhancement projects designed to aid the gillnet, seine and troll fisheries of Northern Southeast Alaska (Petersburg north to Haines). These projects include the Medveje Hatchery near Sitka, the coho lake rearing program, the Takatz remote release project, the spawning channel near Haines, and remote incubation boxes near Haines and Port Camden. In 1987, NSRAA participated in the release of over 50 million fry and smolts.



The coho lake rearing program stocks coho fry in barred lakes not otherwise accessible to anadromous fish. After rearing in the lakes for a year, the smolts migrate to sea, and in another year return for fishermen to catch.

The enhancement projects undertaken by NSRAA are approved by a Board of Directors composed of commercial fishermen and other salmon user groups. User group representatives are appointed, while commercial fishermen (who compose a majority of the Board) are nominated and elected by limited entry permit holders. Funding for these projects comes from the enhancement tax, hatchery loans and from cost recovery. The State makes loan funds available to private non-profit hatcheries for hatchery construction and operation. Cost recovery involves the sale of a portion of the returning fish that enter a special harvest area near the release site. Cost recovery allows loan payback and the continuation of the project on a self-supporting basis.

All of NSRAA's activities are reviewed and approved by the Alaska Department of Fish & Game (ADF&G). As with all enhancement activities in the state, NSRAA works to find projects that are compatible with the continued health of wild stocks. Many projects are undertaken in cooperation with ADF&G, the U.S. Forest Service, and Southern Southeast Regional Aquaculture Association.

NSRAA's main office is located at 103 Monastery Street in Sitka. If you have questions about any of our activities, please contact us. Our phone number is (907) 747-6850.



Ailen Edsall, a fish culturist for the Northern Southeast Regional Aquaculture Association, feeds chum fry shortly before their release last May from Deep Inlet. Photo by Bruce Bachan.



The Haines Spawning Channel, located on a small tributary of the Chilkat River, near Mile 24 of the Haines Highway, provides ideal spawning habitat for chum salmon. In 1987 the first return to the channel showed 5,000 chums spawning there, compared to 1,500 in previous years.



Medveje Central Incubation Facility near Sitka has a capacity for 825,000 chinook smolts; 1,280,000 coho fry for the lake rearing program and 28,000,000 chum eggs.

STATE OF ALASKA
THE LEGISLATURE

POUCH Y STATE CAPITOL
JUNEAU ALASKA 99811
907 465 3800

LEGISLATIVE AFFAIRS AGENCY

MEMORANDUM

February 22, 1988

SUBJECT: Sectional analysis of proposed
CSSB 410 (Resources)
(version 5-1821 L)

TO: Senator Dick Eliason

FROM: Theresa L. Bannister ²⁵
Legislative Counsel

You have requested a sectional analysis of the above described bill.

As a preliminary matter, note that a sectional analysis or summary of a bill should not be considered an authoritative interpretation of the bill and the bill itself is the best statement of its contents.

Section 1. Sec. 16.10.480(a) authorizes the Department of Fish and Game under certain circumstances to contract with another person for the person to operate a state owned hatchery or for the person to operate the hatchery cooperatively with the state.

Sec. 16.10.480(b) requires the department, when selecting a contractor to operate a state-owned hatchery, to give a preference to the regional association organized under AS 16.10.380 that is located in the region of the hatchery. Directs the department not to contract with the preferred regional association if it determines that the association doesn't meet its criteria, and in that case, to procure the contract under AS 36.30 after considering the association's recommendations.

Sec. 16.10.480(c) requires that the operation contract provide that the hatchery will be operated in accordance with certain statutes and regulations.

Senator Dick Eliason
Page 2
February 22, 1988

Sec. 16.10.480(d) allows the department to issue to the contractor during the contract an adult salmon harvest permit that will be sufficient to allow the contractor to recover all or part of its hatchery operating costs.

Sec. 16.10.480(e) prohibits a contract for the operation of state-owned hatchery from affecting the state's ownership of the hatchery. Declares that the contract does not affect the state's responsibility to manage the resource.

Section 2 allows the commissioner of the department to issue a permit subject to certain restrictions for the operation of a hatchery under sec. 16.10.480.

Section 3 allows the commissioner to waive the submission of an application for a permit to operate a hatchery under AS 16.10.480.

Section 4 clarifies that the subsection does not apply to a permit to operate a hatchery under AS 16.10.480.

Section 5 clarifies that an applicant for a permit to operate a state-owned hatchery under AS 16.10.480 does not have to provide certain information about the hatchery at the hearing for the permit.

Section 6 exempts the operator of a state-owned hatchery under sec. 16.10.480 from the sale requirements of the subsection to the extent that the operation contract provides differently than the section.

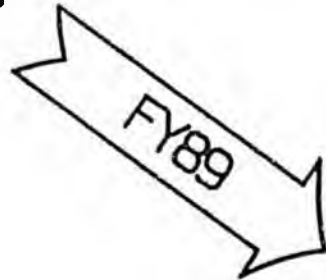
Section 7 provides the bill with an immediate effective date.

TLB:gc
WKG1:104

HIDDEN FALLS
KITOI BAY
CANNERY CREEK
TRAIL LAKES



Operated by State on \$1.4 million
General Funds and \$0.5 million in
other funds. Level of operation
not optimal.



Operated by State at optimal levels
on \$2.4 million in General Funds



State not operating but reprogramming \$1.4 million in General
Funds into areas of deficiency in program.

Snettisham chum salmon increase -\$271.2
StateWide Sockeye -\$351.4

Snettisham Sockeye CIF
Gulkana Expansion

Main Bay Hatchery Sockeye -\$151.5

Russell Creek Hatchery -\$293.7

Crooked Creek Hatchery replace -\$194.1

Interagency funding

Tutka Hatchery Program -\$ 90.0

Fish and Game reconsiders sole-source hatchery contract

By KIRK McALLISTER

1/21/88
The Office of the Ombudsman has sharply criticized the Alaska Department of Fish and Game for trying to award a sole-source contract to an aquaculture group that wants to manage a state-owned fish hatchery on Baranof Island.

Fish and Game wanted to transfer management of the Hidden Falls Hatchery to the Sitka-based Northern Southeast Regional Aquaculture Association as part of an effort to cut the cost of the statewide hatchery program.

But the ombudsman's concern about running afoul of the new state procurement code caused Fish and Game to reconsider the sole-source contract, said Brian Allee, director of the Division of Fisheries Rehabilitation En-

hancement and Development.

The department will now put the management of Hidden Falls out to competitive bid, along with three other hatcheries in Prince William Sound, Kodiak Island and Cook Inlet. Contracts are expected to be final by July 1.

"There's a funding crisis in ocean ranching and turning over the management of these four facilities is a response to that," Allee said. "Our thinking was that the aquaculture associations have the financial wherewithal and expertise to operate these hatcheries."

Hidden Falls, which raises mainly chum salmon for the commercial seine fishery, is widely considered one of the best hatcheries in the state's system, which includes 19 hatcheries, 23 fish ladders, two spawning channels and four laboratories. Alaska's salmon hatchery system is

the largest in North America and one of the most technologically advanced in the world.

In 1987, state hatcheries produced about 6 million salmon, while the private non-profit hatcheries contributed about 19 million fish, according to a FRED division report. But the division has suffered a 30 percent funding cut since 1985.

"The Alaska salmon ocean ranching program has generated \$75 million and 2,000 jobs so it is also an economic development program," Allee said. "It's been a biological and economic success so we're doing what we can to keep it going."

Since 1984, Hidden Falls has produced more than 500,000 chum salmon per year, worth about \$2.5 million to the commercial seine fleet, which harvests most of the

fish. Hidden Falls was built in 1978 and began operating in 1979. The \$3 million initial construction cost was funded by a statewide bond issue.

When the ombudsman reviewed Fish and Game's justifications for asking for a sole-source contract, the legislative watchdog agency didn't buy off on the department's reasoning.

"... It is doubtful that the Northern Southeast Regional Aquaculture Association is the only organization with the expertise and knowledge to operate the Hidden Falls Hatchery," wrote Acting Ombudsman Bruce Aronson in a letter to Fish and Game commissioner Don Collinsworth. "Circumventing the procedures for soliciting a professional services contract by requesting an exempt

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Hatchery...

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tion from Alaska Statutes not only leaves your department open to just criticism but also possible successful legal action."

In his letter to Collinsworth, Aronson suggested that the commissioner "... take a long pause before proceeding with negotiations on this contract." Aronson also said the ombudsman may consider at a later date "investigating the significant issues raised by the complainant."

The ombudsman's letter was prompted following a complaint from Dale Young, who is no stranger to the hatchery business, having served as Southeast regional hatchery manager for Fish and Game from 1976-82.

"We're not trying to stir up trouble, we just want the state to follow the rules," said Young, who along with some partners is trying to develop a hatchery-salmon farm at Baranof Warm Springs.

Jim Cochran, who has served as the hatchery manager of Hidden Falls since it first opened, said the facility has four full-time, eight seasonal and two support workers who could lose their jobs if the state transfers management of the hatchery. He said that doesn't seem fair to him since their apparent reward for making Hidden Falls the state's top hatchery is to lose their jobs.

"It may or may not be a good management decision to contract the management of the hatchery, but what concerns me more than anything is that I can't find any justification for putting 14 employees out of work," Cochran said.

Cochran and Young have discussed submitting a bid for managing Hidden Falls, which is now possible since the bids will now be open to anyone.

Meanwhile, the change of heart by Fish and Game has left some confusion with NSRAA, which had been negotiating for months on a contract for managing Hidden Falls.

Pete Esquiro, general manager of the aquaculture association, said NSRAA would continue to pursue the Hidden Falls contract and planned to submit a bid under the new competitive process. Under their management plan, some of the 14 current hatchery employees could keep their jobs, he said.

Esquiro said his group was interested in Hidden Falls because of its value to commercial fishermen, who control the board of the aquaculture association.

"An added benefit to this is that if the state doesn't have to spend general fund money managing Hidden Falls, it can increase chum and sockeye production at Snettisham (hatchery), which would help the gillnet fleet," he said.

THE PRIVATE NONPROFIT HATCHERY PROGRAM

Background

The 1974 Alaska State Legislature authorized the Commissioner of ADF&G to issue permits to PNP corporations for the operation of salmon hatcheries for ocean ranching. The intent of the program was to allow private ownership of salmon hatcheries that would contribute to the state's salmon fisheries. The cost of constructing and operating these hatcheries was to be derived from the sale of a portion of the returning fish.

The PNP Program is administered by ADF&G, FRED Division, in cooperation with the department's fisheries management divisions, to carry out statutory and regulatory responsibilities pertaining to public and private aquaculture in Alaska.

The PNP Program is responsible for:

- strategic salmon production planning;
- administration of the permitting process for PNP salmon hatcheries, scientific/educational aquaculture programs, and private shellfish farms;
- development of annual operations management plans for all public and private salmon hatcheries;
- administration and coordination of the statewide fish transport permit system;
- coordination of technical assistance to PNP hatcheries; and
- coordinating the development of and ADF&G relations with qualified regional aquaculture associations.

Regional Associations

The 1976 Alaska State Legislature authorized creation of regional aquaculture associations by the Commissioner of ADF&G. Regional associations are comprised of representatives of commercial fishermen and other user groups in the region, including sport fishermen, subsistence fishermen, and members of local communities. Seven regional associations have been formed:

1. Southern Southeast Regional Aquaculture Association (SSRAA)
2. Northern Southeast Regional Aquaculture Association (NSRAA)
3. Prince William Sound Aquaculture Corporation (PWSAC)

4. Cook Inlet Aquaculture Association (CIAA)
5. Lower Yukon/Kuskokwim Regional Aquaculture Association (LY/KRAA)*
6. Bristol Bay Regional Aquaculture Association (BBRAA)
7. Kodiak Regional Aquaculture Association (KRAA)

These associations cooperate with the department in developing and maintaining regional salmon production plans and in the implementation of various salmon rehabilitation and enhancement activities.

Strategic Planning

The 1976 law authorized the Commissioner to designate regions of the state for the purpose of enhancing salmon production. This same law also established the formation of regional planning teams (RPT) to develop regional salmon plans. Each RPT consists of six voting members, with three department personnel appointed by the Commissioner and three appointed by the board of directors of the appropriate regional aquaculture association. The duties and responsibilities of the RPTs have been mandated in a formal charter from the Commissioner. The responsibilities of the RPTs in developing regional comprehensive salmon plans, including provisions for public involvement in the planning process, are described in regulations. The Commissioner may also request the involvement of representatives of other federal and state agencies.

The status of planning by region follows:

1. Southern Southeast

The southern Southeast regional plans have been approved, and the team is in the plan-maintenance process.

2. Northern Southeast

The northern Southeast regional plans have been approved, and the team is in the plan-maintenance process.

3. Yakutat

No formal salmon planning activities have occurred in Yakutat since the approval of the regional plan. The plan has been accepted by the USFS as a basis for the development of land management plans applicable to the region.

* Indicates inactive regional association

4. Prince William Sound

The Prince William Sound regional plans have been approved. The team has proceeded into the plan maintenance and updating process.

5. Cook Inlet

The planning team efforts in Cook Inlet are presently directed toward watershed system planning, with a goal of assessing the capacity of specific systems to sustain and maintain significant, naturally occurring salmon stocks. Watershed system planning also includes an identification of opportunities for salmon enhancement techniques designed to strengthen existing runs and create new runs. Provisions for user-group access and harvest preferences are given primary consideration in this planning process.

6. Kodiak

The Kodiak regional plans have been approved and the RPT has proceeded into the plan-maintenance process.

7. Bristol Bay

The Bristol Bay RPT has completed the final draft of the comprehensive salmon plan for Bristol Bay. The plan is unique in that, unlike plans for other salmon production regions in Alaska, it does not concentrate on fisheries enhancement through such strategies as hatcheries; rather, it emphasizes maintenance and restoration of fish habitat and effective management practices.

8. Lower Yukon/Kuskokwim

No formal salmon planning activities are presently occurring in the Lower Yukon/Kuskokwim region.

PNP Hatchery Funding

Since 1977, funding necessary for the implementation of salmon rehabilitation and enhancement activities by PNP corporations has been obtained primarily through the Fisheries Enhancement Revolving Loan Fund administered by the Alaska Department of Commerce and Economic Development (DCED). The loan program has gone through several modifications by the Legislature, the most recent occurring in 1987. The maximal loan amount available for an individual project is \$10 million, with a payback period of up to 30 years at approximately a 9.5% interest rate. Payments and accrual of interest on these loans can be deferred for 6 to 10 years. Loans for projects not endorsed by the regional aquaculture association may also have these terms, except that they are limited to a maximum of \$1 million. Loans are available for the purpose of planning, construction, and operation of salmon rehab-

ilitation and enhancement projects, primarily salmon hatcheries. These loans are secured through collateral that may include returning hatchery fish and assessments of commercial fishermen.

A cooperative agreement between ADF&G and DCED addresses an interagency/review and coordination process regarding PNP hatchery permit applications, the alteration of previously issued PNP hatchery permits, loans related to PNP hatchery operations, or other rehabilitation and enhancement activities.

Table 6 presents cumulative state loans secured by corporations for capital construction and operations, cumulative enhancement funds returned to the regional aquaculture associations, and revenue generated during 1987 by corporate sales of returning hatchery fish. Through July 1987, \$54.5 million has been borrowed by PNP corporations. Another \$20.1 million has been generated through assessments. In 1987, PNP operators sold fish worth more than \$6.5 million to recover the cost of building and operating their hatcheries.

Program Implementation

The application procedures and standards for issuance of PNP salmon hatchery permits are defined by regulations issued in 1985.

These regulations require the completion of a management feasibility analysis by ADF&G prior to the submission of a PNP hatchery application. This analysis must be completed within 30 days after the applicant provides the information requested in 5 AAC 40.130 of the regulations. The application process takes approximately 135 days and is designed to comply with the coastal zone consistency review process established by the Governor's Office of Management and Budget.

The appropriate RPT reviews each application and makes a recommendation to the Commissioner on the application's compatibility with the regional comprehensive plan. The RPT uses review criteria that are defined in the PNP regulations.

PNP permit holders may request alterations of their permits and basic management plans, based on accumulated experience and changing conditions. The RPT may review and make a recommendation to the Commissioner on a permit alteration request. The team's review is conducted in accordance with performance standards identified in the PNP regulations.

Since the inception of the PNP Program, 25 salmon hatchery permits have been issued, and 33 applications have been either denied or withdrawn. Eighteen of the permitted PNP hatcheries are in operation and 15 had returns of adult salmon during 1987. Currently, there are eight preliminary or final applications for PNP hatchery permits under consideration. In addition, 31 scientific/educational permits for PNP research projects or

school district aquaculture programs were issued in 1987 by the Commissioner. These permits are administered by the PNP Program.

Regulations and application forms for shellfish farm permits are in the final stage of development.

Locations of operational PNP programs and remote release sites are illustrated in Figures 7, 8, and 9.

Hatchery Production

In 1987, PNP corporations estimated that 19.1 million adult salmon originally released as juveniles from corporate facilities were either harvested in common-property fisheries or returned to hatchery special harvest areas (Table 7). In Prince William Sound, returns to PNP hatcheries were estimated by the operators to have contributed over 12.6 million pink salmon to the commercial fishery. SSRAA estimates its hatcheries at Neets Bay and Whitman Lake contributed over 280,000 chum, coho, and chinook salmon to the common-property fisheries in Southeast.

Statewide production data since 1975 for combined species, including adult returns and harvests, are presented in Table 8. Preliminary estimates by the PNP corporations indicate that common-property harvests of the 1987 return were over 13.4 million fish. This represents a 200% increase over 1986 in common-property harvests. Cumulative data for chum salmon produced by PNP corporations since 1975 are presented in Table 9. Similar data for sockeye, pink, coho, and chinook salmon are presented in Tables 10, 11, 12, and 13, respectively.

Egg takes and fry or smolt stocking are regulated by ADF&G through fish transport permits (FTP), which are administered by the PNP Program. During 1987, fry and smolt releases increased to 461 million juvenile fish, an increase of over 80 million (or 21%) from 1986 levels (Table 14). 1987 egg takes for PNP hatcheries totaled over 868 million green eggs, up 346 million (or 66%) from 1986 levels. The largest egg take of 1987 was at Esther Lake Hatchery where over 314 million green pink, chum, coho, chinook, and sockeye salmon eggs were taken for incubation (Table 15). This was followed by the Valdez Fisheries Development Association's (VFDA) Solomon Gulch Hatchery with over 167 million pink, chum, and coho salmon eggs, and the PWSAC's Armin F. Koernig Hatchery with over 125 million pink salmon eggs. In southeast Alaska, the SSRAA took nearly 82 million eggs of all five species for its three hatcheries, and DIPAC took nearly 62 million pink, chum, and coho salmon eggs for its three facilities.

Significant progress was made in initiating hatchery-originated sockeye salmon production from PNP hatcheries. Releases of juvenile sockeye salmon totaled 750,000 in 1987. Sockeye salmon egg takes totaled 1.3 million eggs, an increase of 270,000 over 1986 levels. Significant increases in pink, chum, and coho

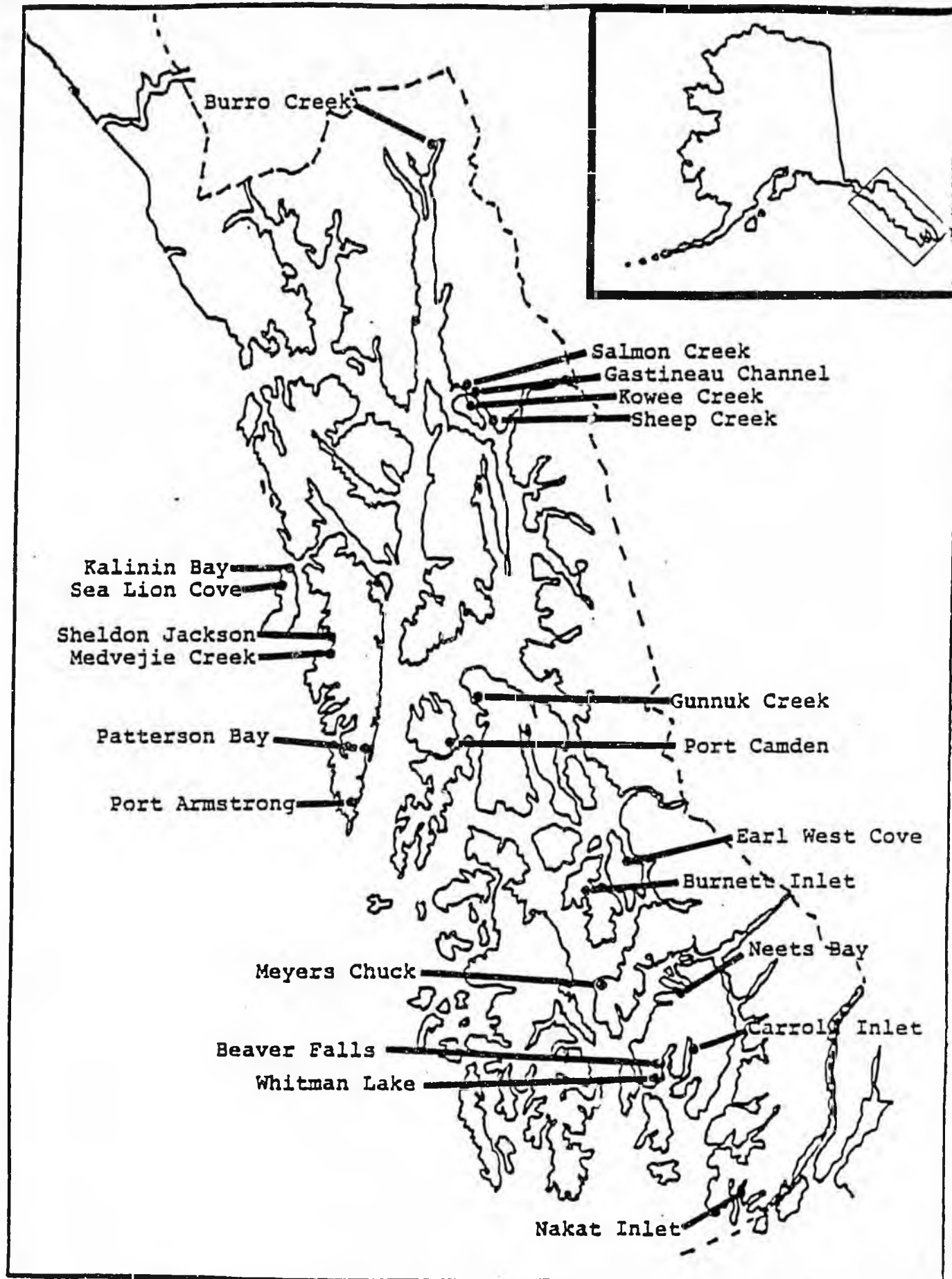


Figure 7. Locations of operational PNP hatcheries and remote release sites in southeast Alaska.

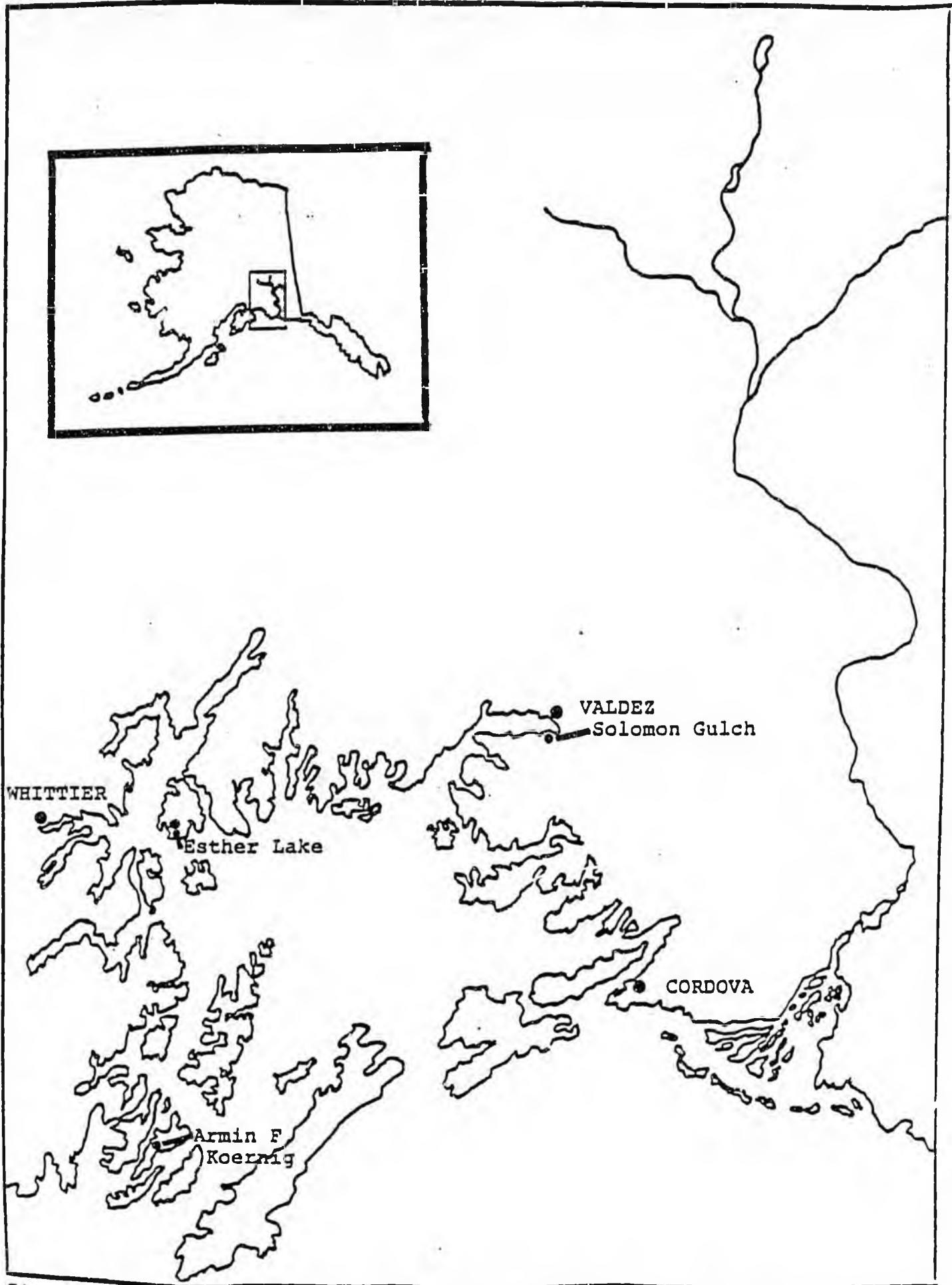


Figure 8. Locations of operational PNP hatcheries and remote release sites in Prince William Sound.

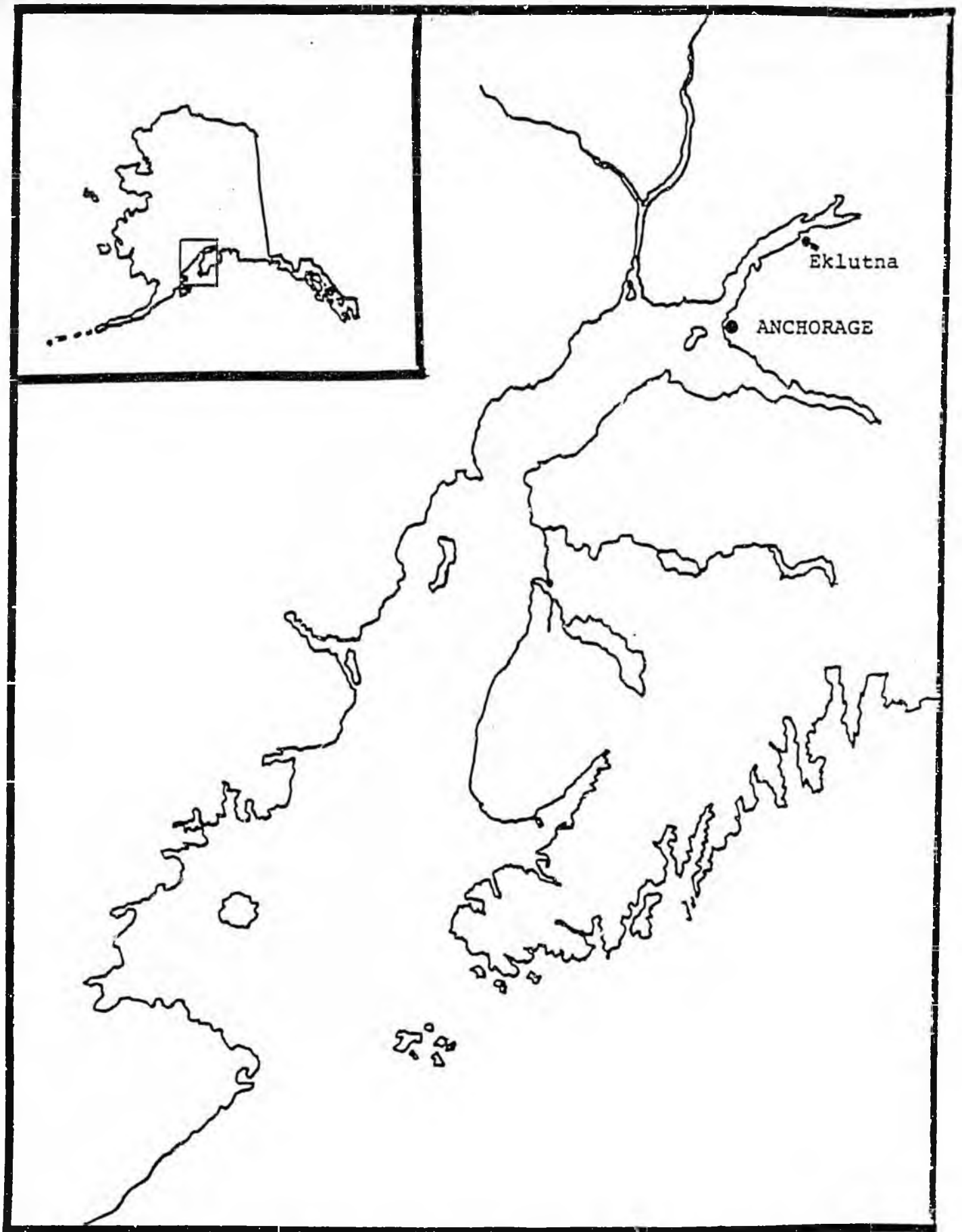


Figure 9. Location of operational PNP hatcheries in Cook Inlet.

salmon production also were made in 1987. Pink salmon egg takes increased by 293 million or 90% over 1986 levels as the Esther Lake, Solomon Gulch, and DIPAC facilities came up to capacity. Chum salmon egg takes increased by 53 million, or 29%, over 1986 levels; coho salmon egg takes increased by nearly 1.0 million, or 11%, over 1986 levels. Chinook salmon egg takes decreased for the first time in five years due to poor egg-take conditions in southeast Alaska.

Many PNP hatcheries are currently in the process of broodstock development and, consequently, have not reached their permitted capacities. Permitted capacities for PNP hatcheries now total over 1.26 billion eggs, an increase of over 129 million from 1986 levels (Table 16). Potential returns from statewide PNP hatchery-originated production at the 1.3 billion-egg level should exceed 20 million adults, assuming FRED standard assumptions of hatchery and marine survival. Exceptional marine survival, similar to that experienced during recent years, could boost adult production considerably over these estimates. Under the existing permits, approximately 52% of hatchery capacity is scheduled for pink salmon, 43% for chum salmon, and 5% for sockeye, coho, and chinook salmon.

For the 1988 season, projected returns to PNP facilities in southeast Alaska are expected to include approximately 43,000 chinook salmon, 240,000 coho salmon, 1,446,000 chum salmon, and 663,000 pink salmon, assuming standard survival conditions. Returns to PNP facilities in Prince William Sound are projected at 13,500,000 pink salmon, 343,000 chum salmon, and 14,500 coho salmon for 1988.

Significant hatchery special harvests are expected at the Armin F. Koernig, Esther Lake, Solomon Gulch, Sheldon Jackson College, Sheep Creek, Neets Bay, Port Armstrong, Burnett Inlet, and Medvejie Creek Hatcheries. Common-property terminal harvests by commercial gear groups are expected at the Neets Bay and Whitman Lake (Nakat Inlet, Carroll Inlet, and Earl West Cove) Hatcheries.

Annual Management Plans

The PNP regulations require that ADF&G prepare, in conjunction with PNP permit holders, an annual management plan (AMP) to guide hatchery operations for the succeeding calendar year.

AMPs will be developed for each state and PNP hatchery facility prior to the 1988 operating season. The AMPs will be reviewed by both the department and the RPTs before final approval by the Commissioner. The AMPs outline expected operational activities at each facility, including wild and hatchery egg takes, proposed fish and egg transports and releases, anticipated adult returns, anticipated impacts on the management of mixed-stock fisheries, and terminal-harvest management strategies. Also included are anticipated facility broodstock requirements and, in the case of PNP facilities, hatchery cost-recovery plans that identify legal

gear types for hatchery harvest and the number of fish required in order to meet capital and operating expenses.