

ALASKA LEGISLATURE SPECIAL COMMITTEE/SUBJECT FILE 8672
1788 SCOMM 74: SEN. SPEC. COMM. ON DOMESTIC & INTL. FISH., 1991-92... 25

Senator Dick Eliason

April 8, 1991

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

If I can provide further assistance, please advise.

GU:pl

91-235.plm

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October 17, 1991

PRINCE WILLIAM
SOUND AQUACULTURE

OCT 21 1991

Mr. John McMullen, President
Prince William Sound Aquaculture Corporation
Box 1110
Cordova, AK 99574

RE: Proposed Hatchery Regulations
Our File No. 91-7618

Dear John:

Enclosed is the long memorandum that I promised on the cost recovery and production limitations issues that you raised. I would be happy to discuss these matters with PWSAC at any time that is convenient for you.

In addition to the questions addressed in the enclosed memorandum, you also asked whether the Board of Fisheries could change the Prince William Sound Allocation Policy this year, out of its normal sequence. My understanding is that the policy has been implemented in the form of regulations, which are codified at 5AAC 24.370. To my knowledge, there is no absolute bar that would prevent the Board from amending or repealing its regulations at any time, so long as it fulfills the statutory requirements for promulgating regulations. Those detailed requirements are included in the Administrative Procedures Act.

However, any new regulations must be consistent with existing statutes, within the scope of the authorizing statute, and reasonably necessary to carry out the purpose of the statute. As with any law or regulation, any amending regulations must also be "reasonable and not arbitrary." Kelly v. Zamarello, 486 P.2d 906 (Alaska 1971).

Given the substantial public testimony in favor of the allocation policy, and the exhaustive back-up documentation that supported the allocation regulations adopted last year, it seems highly unlikely that the Board could make significant amendments that would be "reasonable and not arbitrary." An extensive record would have to be developed showing a dramatic change in circumstances and public support in order to support a change in the policy.

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Even if such a record were to be made, any new regulations would have to preserve PWSAC's ability to continue a reasonable level of broodstock and cost recovery, for all of the reasons stated in my memorandum. For the same reasons, any new policy that attempted to limit PWSAC's salmon production would be vulnerable to legal challenge.

If you have further questions, please give us a call.

Very truly yours,

ASHBURN & MASON



A. William Saupe

AWS/nk

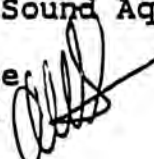
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MEMORANDUM

TO: John McMullen, President
Prince William Sound Aquaculture Corporation

FROM: A. William Saupé
Ashburn & Mason 

DATE: October 16, 1991

RE: Regulation of Private Hatcheries

I. Issues Presented

You have asked us to research several legal issues that go to heart of PWSAC's ability to conduct its business as it has for the past 14 years. First, you asked for the legal basis for of PWSAC's right to conduct broodstock and cost recovery harvests, and an analysis of the degree to which the Department of Fish and Game (the "Department") and the Board of Fisheries (the "Board") can regulate broodstock recovery and cost recovery by private non-profit hatcheries. In that connection, you requested an analysis of an Attorney General's Opinion by Stephen White (Op. No. 663-90-0327, August 1, 1990) and two other opinions on the same topic. One is a memorandum written to Senator Eliason by George Utermohle, Legislative Counsel, dated April 8, 1991, and the other is a

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February 28, 1991 memorandum from Michael A. D. Stanley to Kate Troll, Executive Director of the Southeast Alaska Seiners.

You also asked for an evaluation of the extent of the Board's authority to regulate hatchery production levels on a regional or individual hatchery basis, with specific reference to AS 16.05.440(b), regarding salmon egg take.

The analysis and arguments that we would make follow.

II. Brief Conclusion

Based upon the relevant provisions of the Alaska Constitution, applicable statutes, and related legislative history, we would argue that PWSAC has a constitutional and statutory right to continue a reasonable level of broodstock and cost recovery harvest. Any regulation by the Board or Department that significantly restricted PWSAC's ability to continue its present broodstock and cost recovery practices would be inconsistent with an extensive statutory scheme that explicitly authorizes broodstock and cost recovery by private non-profit hatcheries and regional aquaculture associations. Any such restriction would also conflict with Article VIII, Section 4, of the Alaska Constitution (requiring fish resources belonging to the State to be "utilized,

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developed, and maintained on the sustained yield principle"), Article VIII, Section 15 of the Alaska Constitution (prohibiting any exclusive right or special privilege of fishery, except insofar as limited entry may be imposed by the State "to promote the efficient development of aquaculture in the State").

On the related question of the Board's authority to restrict hatchery production (as distinct from its authority to regulate harvests), the Board is statutorily authorized to regulate such things as the "propagation and stocking of fish" (AS 16.05.251(7)), and the "source and number of salmon eggs" taken by a hatchery (AS 16.10.440(b)), which suggests that it might have some measure of control over individual hatchery output. However, the available legislative history strongly suggests that the legislature never intended to give the Board the power to limit hatchery production on either a local, regional or statewide basis. Nothing in the current law would permit regional production ceilings designed to restore historical market share percentages, which we understand to have been proposed.

If the Board does have power to regulate production, at some point it would come into conflict with the constitutional provisions mentioned above and the numerous other statutes, such as

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the statutes creating the FRED Division, the Limited Entry Act, and the State Hatchery Loan Program, which together evidence a strong policy in favor of hatchery development as well as enhancement and extension of the State's fisheries. Because there are no court decisions interpreting the Board's power to regulate propagation or egg take, and because the Alaska Supreme Court has not elucidated either the meaning of the constitutional reference to "efficient development of aquaculture," or the meaning and application of the sustained yield concept, there is no sure way to know precisely where the collision might occur until a specific restriction is imposed and challenged in court.

It would seem reasonable to conclude, however, that in the absence of a strong factual showing that hatchery production posed a serious genetic or disease threat to wild salmon stocks or perhaps was causing severe economic distress, neither the Department nor the Board could legally restrict PWSAC's output below a level necessary to sustain hatchery yields, to efficiently develop aquaculture, to repay state loans and to recover its costs.

III. Discussion

A. The Board And The Department Are Required By The

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Alaska Constitution And Numerous Statutes To Manage
For Broodstock Recovery

In its August 1990 opinion, the Attorney General's Office advanced the argument that the Board is obligated to manage Alaska's fisheries to provide for broodstock recovery by hatcheries. Analogizing broodstock fish to wild stock escapement, the Assistant Attorney General Stephen White reasoned that Article VIII, Section 4 of the Alaska Constitution mandates that conclusion. That section provides as follows:

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

Alaska Const. Art. VIII, §4. White implicitly assumes that hatchery fish "belong to the State" and argues that without broodstock harvests, hatchery stocks obviously could not be sustained.

In an opinion on this subject requested by Senator Eliason, Legislative Counsel George Utermohle questioned White's conclusion that the sustained yield principle applies to hatchery

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fish, on the grounds that they may not "belong to the State." He bases his argument entirely on AS 16.10.440(a), which provides:

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

AS 16.10.440(a).

Utermohle points out that the phrase "occurring in their natural state" used in this section mirrors the language of the common use clause of the constitution (Art. VIII, Sec. 3).¹ He then argues that merely providing that hatchery fish are available for common use "neither implies state ownership of the hatchery fish nor entails a concomitant responsibility to manage hatchery fish for sustained yield, because the requirements for common use and sustained yield are separate provisions of the constitution." Next, Utermohle asserts that AS 16.10.440(a) does not use the phrase "belonging to the state," which would invoke the sustained

¹Article VIII, Sec. 3 provides: "Common Use. Wherever occurring in their natural state, fish, wildlife, and waters are reserved to the people for common use."

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yield clause. Instead, he argues that the statute requires only that hatchery fish be treated in the same way as fish occurring in their natural state until they return to the specific hatchery location. Utermohle Memo. p. 2.

From this phrasing in AS 16.10.440(a), Utermohle reasons that there may be "some form of lingering private property interest in the hatchery fish even after the hatchery releases the fish into the wild." Id. at 3. If the fish do not "belong to the State," Utermohle concludes that they are not subject to the sustained yield requirement and neither the Board nor the Department is required to manage hatchery fish to assure a sustained yield escapement to the hatcheries.

Utermohle's ownership argument does not stand up to closer analysis and is contradicted by the available legislative and constitutional history. Certainly PWSAC has understood since its creation in 1975 that once it releases its fish, it no longer owns or controls them. From the point of release forward, they are "fish occurring in their natural state" and, as Utermohle acknowledges, Article VIII, Section 3 of the constitution reserves them to the people for common use. This is consistent with the general rule, which he also cites, that salmon while in state water

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are property of the state and held in trust for the benefit of all people of the state. Metlakatla Indian Community v. Egan, 362 P.2d 901, 914-915 (Alaska 1961).

That hatchery fish belong to the State is also consistent with the views of the legislature that created the nonprofit hatchery program. In her July 31, 1991 memorandum to Senator Eliason, Linda J. Snow, a Legislative Analyst, wrote as follows:

Consensus is that the legislature had always intended that the fish from PNP hatcheries belong to the common property fishery until such time as they return to the hatchery, and then they belong to the hatchery for broodstock and cost recovery. Testimony by Senator Dick Eliason at a 1975 Senate Resources Committee hearing on SB 180 indicates that the initial concept of a private hatchery system considered profit-making corporate ownership. However, a profit-making corporation might advance a claim to exclusive ownership of everything it produced. Thus, it was felt that private, nonprofit ownership of hatcheries would be more consistent with the concept of publicly owned hatchery fish. This opinion is echoed by former Representative Terry Gardiner.

At a March 7, 1977 House Resources Committee hearing, Jack Milnes, executive director of Southern Southeast Regional Aquaculture Association testified: "I wish to recognize the fact that these are common property fish, that they belong to the state of Alaska and to the people of Alaska and therefore they should be protected by the representatives of the

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people of the state of Alaska." At a 1979 Senate Resources Committee hearing on HB 48, Don Clockson, an attorney with Alaska Legal Services discussed the question of ownership of hatchery fish. In his testimony, he asked "When are fish no longer common property fish?" He felt that constitutionally, they were considered to be common property at all times. Consequently, it appears there was never any question that hatchery fish were common property of the people of the state while in Alaska waters, and they may or may not be the property of the PNP hatchery operator at the hatchery, but that he is allowed to harvest a sufficient number for broodstock and cost recovery.

Snow Memo. p. 14 (attached as Attachment A) (emphasis added). These statements effectively answer the "ownership" issue. When the legislature created private hatcheries, it intended that the fish would belong to the State, contrary to Utermohle's supposition.

The commentary of the Committee on Resources of the Alaska Constitutional Convention is also significant on this point. Referring specifically to the "common use" clause, which Utermohle seeks to distinguish from the sustained yield clause, the commentary states in relevant part as follows:

Game fish, wildlife, fisheries, and water are recognized as belonging to the state so long as in a natural state. These resources are subject to a private right only when they have been acquired or utilized as provided by law.

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Alaska Constitutional Convention Proceedings, Part 6, p. 98 (emphasis added). Thus, the framers of the common use clause thought that the fish being reserved for common use "belonged" to the State. Hatchery fish are reserved for common use by AS 16.10.440(a) and the common use clause itself. Therefore, they must belong to the State and be subject to the sustained yield principle.

Also significant is the commentary to the sustained yield clause, which states in relevant part:

Sustained yield is recognized as a principle applicable to the administration of plant and animal life subject to the immediate authority of the state.

Id. (emphasis added). Because hatchery fish are subjected to the authority of the State by AS 16.10.440(a), among other provisions, it follows that they are subject to the sustained yield clause.

This conclusion also comports with common sense. If they did not belong to the State, it could not reserve hatchery fish for use by others without paying for them. Moreover, if the mere expectation that a hatchery will later be allowed to harvest some unidentified fraction of the returning fish constitutes an ownership interest in all of its fish, then every other limited entry permit holder could be said to have the same "lingering

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property interest," leading to the false conclusion that none of the fish in Alaska's waters ever belong to the State or are subject to the sustained yield principle of management.

A more reasonable interpretation of these related statutory and constitutional provisions is that, once released, hatchery fish become like wild stocks in every legal respect. They belong to the State, are reserved to the people for common use and must be managed for sustained yield. Therefore, broodstock recovery must be permitted by the Board and the Department at a level sufficient to produce a sustained yield of hatchery stocks.

Even if this is true, Utermohle goes on to argue that the sustained yield principle in Article VIII, Section 4 is not absolute and is "subject to preferences among beneficial uses." He suggests that this phrase implies the power on the part of State regulators to deny hatchery harvests altogether, in order to achieve a "more beneficial public purpose." According to Utermohle, the ability of the State to establish preferences among beneficial uses is reflected in AS 16.10.430(b), which allows the Commissioner of Fish and Game to terminate the operation of a

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hatchery if its adverse effects are irreversible and cannot be mitigated. Utermohle Memo., p. 4.²

A more plausible interpretation of AS 16.10.430(b) is that the listed conditions under which a hatchery operation may be terminated are the only bases upon which termination is permitted. In other words, unless there are irreversible adverse effects that cannot be mitigated, a licensed hatchery operation cannot be terminated, directly through a termination order, or indirectly through a denial of broodstock or cost recovery funds.

Utermohle's argument also overlooks, among other things, Article VIII, Section 15 of the constitution, which provides:

²AS 16.10.430(b) provides as follows: "If the commissioner finds that the operation of the hatchery is not in the best interests of the public, the commissioner may alter the conditions of the permit to mitigate the adverse effects of the operation, or, if the adverse effects are irreversible and cannot be mitigated sufficiently, initiate a termination of the operation under the permit over a reasonable period of time under the circumstances, not to exceed four years. During the period of time that the operation is being terminated, the permit holder may harvest salmon under the terms of the permit but may not release additional fish."

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No exclusive right or special privilege of fishery shall be created or authorized in the natural waters of the State. This section does not restrict the power of the State to limit entry into any fishery for purposes of resource conservation, to prevent economic distress among fishermen and those dependent upon them for a livelihood and to promote the efficient development of aquaculture in the State.

This provision strongly suggests that the framers of our constitution considered the efficient development of aquaculture to be an important value to be protected. It also indicates read to mean that the efficient development of aquaculture is one of the purposes of limited entry, a principle that is central to fisheries management in Alaska.

Hatchery harvests for broodstock (and cost recovery) are absolutely essential to conservation of the resource and to the efficient development of aquaculture. If deprived of broodstock (or the funds generated by cost recovery), PWSAC could not continue in existence, much less develop efficiently. Furthermore, other beneficial uses, such as the harvest of PWSAC produced fish by commercial, sport and subsistence users, would be seriously harmed, not helped by a restriction on broodstock harvest. Over the past 14 years, PWSAC has harvested an average of less than 30% of the

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salmon returning to its hatcheries. During the period from 1986 through 1990, PWSAC fish constituted 50 percent of the total commercial harvest. During that period PWSAC contributed an average of approximately \$15.4 million annually in value to the common property fishery, while costing the State little or nothing. PWSAC harvests have consistently sustained other user groups throughout the region, while causing no demonstrable harm to wild stocks. Short of the extreme situation envisioned by AS 16.10.430(b), it is hard to conceive how denial of a reasonable hatchery harvest in favor of other beneficial uses could achieve a greater public purpose.

Any regulation that severely limited or denied PWSAC's right to harvest a reasonable number of fish would violate both Section 4 (sustained yield) and infringe on the values reflected in Section 15 (limited entry and efficient development of aquaculture) of Article VIII and the Limited Entry Act, of which hatchery harvests are an integral part.

Utermohle's argument also overlooks an extensive web of statutory provisions that evidence an unwavering legislative intent to sustain and expand hatchery operations through hatchery harvests. A good example is the very provision that Utermohle

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cites, AS 16.10.440(a), which provides that hatchery fish are available for common use "until they return to the specific location designated by the department for harvest by the hatchery operator." This indicates a legislative expectation and intent that hatchery harvests are necessary.

The obligation of the Department to affirmatively assist with broodstock recovery is embodied in AS 16.10.443, which states:

Department assistance and cooperative. (a)
Before and after permit issuance under AS 16.10.440 - 16.10.470, the department shall make every effort, within the limits of time and resources, to advise and assist applicants or permit holders, as appropriate, in the planning, construction, or operation of salmon hatcheries.

As explained above, broodstock recovery is essential to hatchery operations. Without it, they could not exist. The Department is obligated under AS 16.10.443 to assist in the operation of hatcheries. Any departmental regulation, action or order that denied broodstock recovery would be inconsistent with this obligation and would be invalid.

Other relevant statutory provisions that establish the obligation of the Department and the Board to manage for hatchery harvests are discussed below, in relation to cost recovery.

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B. The Board And The Department Must Also
Manage For Cost Recovery Harvests

Assistant Attorney General White concluded that the Board and the Department "are authorized, and in fact directed, to manage fisheries so that broodstock returns to hatcheries." Both the reasons given by White and the additional reasons set forth above support this conclusion. On the related issue of whether the Board and the Department must manage for cost recovery, White is less certain. He believes that the arguments on both sides of the question "depend upon implication and analogy" and concludes that "the law does not clearly point to one answer or the other." White Memo., p. 7. However, we would argue that the Alaska Constitution and an extensive statutory scheme require the Board and the Department to manage for hatchery cost recovery.

As an initial matter, it is important to remember that the Board and the Department manage the fisheries primarily through regulations and orders. In order to be valid, a regulation must be within the scope of the authorizing statute and it must be "consistent with standards prescribed by other provisions of law." Beran v. State, 705 P.2d 1280 (Alaska App. 1985), citing AS 44.62.020. In Beran, the court struck down a Board regulation on

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the basis that it was inconsistent with other provisions of law and therefore invalid. *Id.* at 1289. If the Board or the Department were to issue regulations that curtailed PWSAC's ability to conduct a cost recovery harvest, the regulations would be inconsistent with numerous provisions of law and could be successfully challenged in court.

The first section of this memorandum focused on the requirements of Article VIII of our constitution. The same constitutional provisions that protect broodstock recovery also protect cost recovery, because cost recovery is also absolutely essential to sustain hatchery yields (Section 4) and to promote the efficient development of aquaculture (Section 15). This discussion will not repeat those arguments, but will focus instead on the legislative mandate for cost recovery. Numerous statutes express the legislative intent that hatcheries must be permitted to conduct cost recovery harvests in order to generate funds for operation, debt retirement, and expansion.

The most obvious such provision is AS 16.1C.450(a), which could hardly be clearer on this point. It states:

Sale of salmon and salmon eggs by hatchery.
(a) Except as otherwise provided in a contract for the operation of a hatchery under

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AS 16.10.480, a hatchery operator who sells salmon returning from the natural waters of the state, or sells salmon eggs to another hatchery operating under AS 16.10.400 - 16.10.470, after utilizing the funds for reasonable operating costs, including debt retirement, expanding its facilities, salmon rehabilitation projects, fisheries research, or costs of operating the qualified regional association for the area in which the hatchery is located, shall expend the remaining funds on other fisheries activities of the qualified regional association.

AS 16.10.450(a).³

The Limited Entry Act, AS 16.43.400, et. seq., permits the Commercial Fisheries Entry Commission to issue "special harvest area entry permits" to _____ of private, nonprofit hatchery permits issued by the _____ Section 420 of the Act, noted above in connection _____ ownership issue, specifically authorizes cost recovery harvest by permit holders, such as PWSAC:

Disposition of fish. Fish caught under the authority of a special harvest area entry

³The intent of this provision is reiterated in AS 16.40.210, the recently enacted statute that bans mariculture. It provides in section (b)(2) that "this section does not restrict the ability of a nonprofit corporation that holds a salmon hatchery permit under 16.10.400 to sell salmon returning from the natural waters of the state, as authorized under 16.10.450, or surplus salmon eggs, as authorized under 16.10.420 and .450."

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permit are the property of the permit holder. The permit holder may sell the fish if the proceeds are used in the manner described in AS 16.10.450.

AS 16.43.420. PWSAC, of course, holds a special harvest area entry permit under AS 16.43.400, and its cost recovery funds are used for the purposes listed in AS 16.10.450. It thus has a statutory right to cost recovery that cannot be curtailed through regulation.⁴

PWSAC also conducts cost recovery harvests at Main Bay and Cannery Creek under authority of contracts entered pursuant to AS 16.10.480, enacted by the legislature in 1988. That section authorizes the Department to enter into hatchery management contracts for certain state-owned hatcheries, which allow harvest of adult salmon "in a quantity sufficient to allow the contractor to recover all or part of the contractor's costs of operating the hatchery." While this provision is permissive, rather than

⁴It could also be argued that cost recovery is guaranteed to permit holders such as PWSAC by the Limited Entry Act itself. In Johns v. CFEC, 758 P.2d 1256, 1263 (Alaska 1988) the court stated: "The Limited Entry Act has two purposes - enabling fishermen to receive adequate remuneration and conserving the fishery," citing, Art. VIII, Sec. 15, Alaska Const., AS 16.43.010; CFEC v. Apokedak, 606 P.2d 1255, 1265 (Alaska 1980). Without cost recovery, PWSAC would not receive adequate remuneration or be able to help conserve the fishery.

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mandatory, it is further evidence of the legislature's expectation and intent to permit cost recovery harvests at state-owned but privately operated hatcheries.⁵

Another statutory provision that is quite clear on this point is AS 16.10.430(b), discussed above. This provision permits the Commissioner of Fish and Game to terminate a hatchery permit if he finds that continued operation is no longer in the public interest. Presumably, termination could be ordered if a hatchery failed to sustain itself economically, or more likely, if it produced diseased or genetically damaged fish that might threaten other stocks. See Snow Memo., pp. 12-13, 16. In any case, the relevant point is that termination is to be phased over time.

During the period of time that the operation is being terminated, the permit holder may harvest salmon under the terms of the permit but may not release additional fish.

AS 16.10.430(b). Logically, this provision can only contemplate cost recovery harvest. In the context of hatchery termination,

⁵Both the Main Bay and the Cannery Creek contracts provide that PWSAC shall have the right to conduct cost recovery harvests during the terms of the contracts.

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broodstock harvest would not be necessary since no new fish could be released.

Under AS 16.05.020, the Commissioner of Fish and Game is required to "manage, protect, maintain, improve, and extend the fish, game... of the state in the interest of the economy and general well-being of the State." The FRED Division has been charged with the duty, "through rehabilitation, enhancement and development programs" to do everything "necessary to insure perpetual and increasing production and use of the food resources of Alaska's waters and continental shelf areas." AS 16.05.092. Also significant is AS 16.10.443, cited above, which requires the Department to do everything possible to assist with hatchery operations. Any regulation or order that prevented a reasonable level of cost recovery would hardly be consistent with these duties on the part of the Commissioner or with the myriad of other statutes that authorize cost recovery harvests by hatcheries. Under Beran v. State, supra, and numerous other cases, regulations are invalid if they are inconsistent with other provisions of law.

The statutory provisions discussed above lead to the conclusion that the legislature intended cost recovery harvest to be the primary method of funding private nonprofit hatcheries. The

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Snow Memorandum on the legislative history of the hatchery program supports this conclusion:

At this time [1973-974], legislators were coming to the view that the private sector would be more efficient than the government in the operation of hatcheries. Also, nongovernmental hatcheries had much to recommend them from the perspective of public finance issues: the operation of private hatcheries could be funded from the harvest of returning fish and from tax assessments on the fishermen who had access to hatchery production, thus shifting the cost of the facilities from the shoulders of the general public to the people who derived benefits directly from them.

Snow Memo., p. 5. (emphasis added). Snow goes on to point out that in 1974 "there was great enthusiasm about the prospect of PNP hatcheries from fishermen's groups, education centers, Native corporations, and the legislature itself." Id.

An attorney for the Southeast Alaska Seiners, Michael D. Stanley, seems less enthusiastic about cost recovery. He has approached the issue from a different direction, acknowledging the Department's primary responsibility for control of hatchery harvests, but questioning whether the Board has the statutory authority to allocate fish to private hatcheries. See Memorandum from Michael Stanley to Kate Troll, Executive Director Southeast

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Alaska Seiners, dated February 28, 1991. Stanley bases his argument on AS 16.05.440(a), cited above at page 5. He focuses on the statutory language subjecting hatchery fish to regulation in the same manner as wild stocks, "until they return to the specific location designated by the department for harvest by the hatchery operator." From this he concludes (1) it is the Department, not the Board, which is responsible for "allocating" hatchery fish to a hatchery through designation of special harvest areas, and (2) such allocation occurs only after those fish have traversed the common property fisheries and returned to the specific location designated for hatchery harvest. Stanley Memo., p. 4.

One flaw in this reasoning is that it confuses allocation of fish to be harvested with designation of a special harvest area and harvest timing. There is no logical reason that the Board cannot allocate a portion of the return to a hatchery and the Department designate the specific time and place for the harvest of that allocation. In fact, my understanding is that that is how the system has always worked.

This scheme also appears to be in harmony with subsection (b) of AS 16.10.440, which gives the Board the authority "to amend by regulation... the terms of the permit relating to the harvest of

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fish by hatchery operators, and the specific locations designated by the department for harvest." This provision gives the Department primary responsibility to regulate cost recovery harvests, but also confers sufficient statutory authority on the Board to allocate fish to be harvested. The legislative history of AS 16.10.440, quoted at length below, indicates that the role of the Board extends to regulating the harvest of "those fish which are returning as a result of releases from natural systems and also from hatchery releases." House Journal, March 15, 1979, pp. 601-602.

Another difficulty with Stanley's theory that the Board does not have the power to allocate fish for hatchery harvest is that it seems to be inconsistent with two specific provisions of the Limited Entry Act, under which hatcheries are granted limited entry permits. AS 16.43.440 provides that: "use privileges granted under AS 16.43.400 - .440 are subject to the regulations of the Board of Fisheries." Also, AS 16.43.950 states that "... Holders of ... entry permits issued under this chapter are subject to all regulations adopted by the Board of Fisheries." These provisions

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also could be read to authorize the Board to allocate fish to hatcheries.⁶

As a final point in response to the Stanley Memorandum, the Board's primary authorizing statute, AS 16.05.251(a), is quite broad and seems to give the Board ample authority to allocate fish for cost recovery and broodstock harvest. Examples of the types of regulations the Board may adopt are found in Section 251(a)(6) (classifying as commercial fish, sport fish, personal use fish, subsistence fish, or predators or other categories essential for regulatory purposes); Section 251(a)(12) (regulating commercial, sport, subsistence, and personal use fishing as needed for the conservation, development, and utilization of fisheries); Section 251 (a)(14) (establishing nonexclusive, exclusive, and superexclusive registration and use areas for regulating commercial fishing.) See also, AS 16.05.251(e) (Board shall establish criteria for allocation of fishery resources among personal use,

⁶As we have argued elsewhere, the power of the Board to allocate to hatcheries does not include the power to deny a reasonable allocation altogether.

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sport and commercial fishing). These provisions are broad enough to allow the Board to allocate to hatcheries.

The idea that hatchery harvests do not qualify as "commercial fishing", and therefore not covered by these statutory sections, is directly contrary to the plain meaning of the definition found in the statute.

"Commercial fishing" means the taking, fishing for, or possession of fish... with the intent of disposing of them for profit, or by sale, barter, trade, or in commercial channels;

As 16.05.940(4). There can be no doubt that PWSAC takes and possesses fish with the intent of disposing of them by sale in commercial channels, and is thus engaged in commercial fishing within the meaning of AS 16.05.251. Commercial fishing is precisely what a cost recovery harvest is. PWSAC's conduct in this regard is indistinguishable from that of any other commercial fisherman. (Ironically, one of the objections that is raised by hatchery opponents is that it is inappropriate, for some reason, for hatcheries to "compete" in the commercial market with other fishermen trying to sell their fish to the same customers).

If PWSAC is engaged in commercial fishing, AS 16.05.251 and the case law cited in the White Memorandum (e.g., Meier v.

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State Bd. of Fisheries, 739 P.2d 172 (Alaska App. 1987)) support the conclusion that the Board has ample power to make allocations for hatchery harvests. The Board not only has the authority, but it also has an obligation to do so. See, AS 16.05.251(d) (requiring the Board to provide a fair and reasonable opportunity for the taking of fishery resources by personal use, sport and commercial fishermen).

C. The Board's Power To Restrict Hatchery Output Is Unclear, But Must Be Limited By The Same Constitutional And Statutory Restrictions That Apply To Cost Recovery

Your second question concerns the extent of the Board's authority to regulate hatchery output, as opposed to allocation of harvests. The Snow Memorandum (Attachment A) addresses this issue. It directly responds to a question posed by Senator Eliason as to whether the legislature ever considered limiting hatchery production because of: (1) adverse impacts on wild stocks; or (2) adverse impacts on salmon market prices. Snow's answer is revealing. Her memorandum states as follows:

We found no discussion in the legislative record that hatchery production should be restrained to a predetermined level for either biological or economic reasons. While the legislature was presumably prepared to take whatever corrective measures were necessary in the face of persuasive evidence that the hatchery program

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was causing serious biological problems, there appears to have been no discussion of establishing a ceiling on the production of fish from hatcheries.

There also appears to have been no contemplation of imposing a ceiling on the production of hatchery fish to support market prices. According to Terry Gardiner, salmon stocks were so depressed in the 1970's that there was no thought given to the possibility of oversupply.

* * * *

Clem Tillion told us that the legislature did not anticipate dependence on hatchery salmon by Alaska's commercial fishermen, and if adverse impacts on salmon market price were suspected by any legislators, it was not a widespread feeling, for they did not take steps to be able to limit production if that occurred.

Snow Memo., pp. 13-14 (emphasis added).

Consistent with Snow's conclusions, a review of the Board's authorizing statute as well as the other statutes relating to hatcheries finds little or no basis for regulation of hatchery output by the Board.

You specifically asked whether AS 16.10.440(b), which provides, among other things, that the Board has the authority to regulate "the terms of [a hatchery] permit relating to the source and number of salmon eggs...",⁷ authorizes the Board to limit

⁷Section 440(b) goes on to say that the Board may not "adopt regulations or take any action regarding the issuance or denial of any permits required in AS 16.10.400 - 16.10.470." This suggests that the Board does not have the power to completely deny a cost

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hatchery production levels. The legislative history of this provision indicates that it does not. The Resources Committee's letter of intent on HB 359, which included the language in question, states as follows:

There are three other major changes made by the bill:

(1) Section 2 of the bill amends AS 16.10.440(a)(b). The amendment clarifies the role of the Board of Fisheries. The role of the Board of Fisheries as envisioned by the original legislation was to regulate the harvest of salmon returning to the waters of the state. That role extends to regulating those fish which are returning as a result of releases from natural systems and also from hatchery releases. There are provisions in other portions of the non-profit hatchery Act which allow the designation of specific locations for the harvest of salmon by the hatchery operator for sale, and use of the money from that sale, for the specific purposes as stated in AS 16.10.450. The added language clarifies that the Board of Fisheries may adopt regulations relating to the harvest of the fish by hatchery operators at the specifically designated locations. The Board of Fisheries in the past year or two has enacted regulations relating to those harvests for several of the private non-profit hatcheries in the state.

recovery harvest permit.

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House Journal, March 15, 1979, pp. 601-602 (emphasis added). The exclusive reference to regulation of harvest, and the absence of any mention of production controls, corroborates the conclusion reached by the Snow Memorandum that the legislature never intended to authorize the Board to limit hatchery production. The Board's traditional function has always been to allocate harvests.

The only other statutory provision that suggests otherwise is found at AS 16.05.251(7), which authorizes the Board to regulate the "propagation and stocking of fish," which tends to suggest the power to regulate production, not just harvest levels and allocations. The most plausible explanation of this language is that it was included to permit regulation of such activities as stocking lakes with trout or perhaps even raising fish in ponds. There is regrettably no legislative history available to aid in the interpretation of this language. Because it runs counter to the Board's traditional role and is inconsistent with the conclusions in the Snow Memorandum, it would be wrong to assign much importance to this provision.

Apart from the issue of whether the Board could regulate hatchery output on a local basis, you have asked also whether the Board has the authority to set regional production limits for the

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purpose of adjusting relative market shares between different regions of the State. Can the Board, for example, legally cap hatchery sockeye output in Prince William Sound to keep it at the historical position it has held in relation to Bristol Bay sockeye production?

There is no short and simple legal answer to this question. The authority to regulate propagation and stocking is a very slender thread from which to hang an unprecedented, statewide regulatory program of production allocation, which has not been specifically authorized or even contemplated by the legislature. Certainly any such regulatory regime would raise serious questions as to its consistency with the Board's statutory duty to "conserve and develop" the State's fisheries. Such a policy might further conflict with a number of the other statutory provisions already discussed. It would also run up against the sustained yield concept (Section 4) and the maximum use (Section 1) and maximum benefit (Section 2) policies at the heart of Article VIII of our constitution.

Perhaps more significant than the legal impediments, which are considerable, there would be serious practical and policy problems with any attempt by the Board to allocate production

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between regions of the State. For example, which historical moment would serve as the reference point for assignment of regional quotas? Would it be before or after establishment of the hatchery program? Would new hatchery programs (such as the Main Bay sockeye facility) be automatically precluded if they would alter the historical balance of harvest levels between regions? How could hatcheries plan their budgets and production levels from year to year, given the inherent unpredictability of natural returns? Would a direct consequence of such a policy be to reward stagnant regions and to stifle initiative on the part of any region that is efficient, well-organized and capable of growth? Would the anticompetitive aspects of regional limits outweigh the asserted benefits? What are the asserted benefits? Do they go beyond mere regional jealousy and have some statewide economic rationale? While the answers to these questions are unknown, it may be very difficult for the Board to identify a defensible, rational basis for any such plan.

(b) A vessel license is valid for one or two years. However, if the license is valid for one year and the license fee has been paid for an additional year, the commission shall, at the end of the first year, automatically issue another license to the licensee valid for one additional year. (§ 7 art III ch 94 SLA 1959; am § 20 ch 131 SLA 1960; am § 12 ch 31 SLA 1963; am § 10 ch 105 SLA 1977; am §§ 20, 21, ch 81 SLA 1984)

Effect of amendments. — The 1984 amendment deleted "Annual" at the beginning of the catchline, added subsection (b), and, in subsection (a), in the first sentence deleted "annual" following "Upon"

and inserted "for one year or \$40 for two years at the option of the owner," and added "or years the license is valid" at the end of the second sentence.

NOTES TO DECISIONS

Cited in *State v. Baranof*, Sup. Ct. Op. No. 2785 (File Nos. 7287, 7324), 677 P.2d 1245 (1984); *State v. F/V Baranof*, Sup.

Ct. Op. No. 2787 (File Nos. 7287, 7324), 677 P.2d 1256 (1984).

Sec. 16.05.536. Persons eligible for gear licenses. [Repealed, § 12 ch 71 SLA 1972.]

Secs. 16.05.540 — 16.05.610. Limitation on issuance of fishing gear licenses; issuance of licenses for various types of fishing gear. [Repealed, § 19 ch 105 SLA 1977.]

Sec. 16.05.620. Otter trawl license. [Repealed, § 2 ch 159 SLA 1968.]

Sec. 16.05.630. Shellfish pot license. [Repealed, § 19 ch 105 SLA 1977.]

Sec. 16.05.632. Identification of shellfish pots or buoys, or both, used in the taking of king crab and requirements for buoys. (a) Registration tags for the identification of shellfish pots or buoys, or both, used in the taking of king crab are required in areas in which the board has regulations limiting the total amount of shellfish pots allowed per vessel. Registration tags shall

(1) be issued by the department under regulations adopted by the board;

(2) be nontransferable;

(3) be individually numbered, designating the year of issuance;

(4) be permanently affixed to each shellfish pot or buoy, or both, used in the taking of king crab, whichever in the determination of the board is appropriate for identification, and in a manner determined to be appropriate by the board;

16.05.530 - 630
(Repealed)

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under this chapter, but does not include an organization formed or operated for gaming or gambling purposes;

(14) "fish or game farming" means the business of propagating, breeding, raising, or producing fish or game in captivity for the purpose of marketing the fish or game or their products, and "captivity" means having the fish or game under positive control, as in a pen, pond, or an area of land or water which is completely enclosed by a generally escape-proof barrier;

(15) "fish stock" means a species, subspecies, geographic grouping or other category of fish manageable as a unit;

(16) "fur dealing" means engaging in the business of buying, selling, or trading in animal skins, but does not include the sale of animal skins by a trapper or hunter who has legally taken the animal, or the purchase of animal skins by a person, other than a fur dealer, for the person's own use;

(17) "game" means any species of bird, reptile, and mammal, including a feral domestic animal, found or introduced in the state, except domestic birds and mammals; and game may be classified by regulation as big game, small game, fur bearers or other categories considered essential for carrying out the intention and purposes of AS 16.05 — AS 16.40;

(18) "game population" means a group of game animals of a single species or subgroup manageable as a unit;

(19) "hunting" means the taking of game under AS 16.05 — AS 16.40 and the regulations adopted under those chapters;

(20) "nonresident" means a person who is not a resident of the state;

(21) "nonresident alien" means a person who is not a citizen of the United States and whose permanent place of abode is not in the United States;

(22) "operator" means the individual by law made responsible for the operation of the vessel;

(23) "personal use fishing" means the taking, fishing for, or possession of finfish, shellfish, or other fishery resources, by Alaska residents for personal use and not for sale or barter, with gill or dip net, seine, fish wheel, long line, or other means defined by the Board of Fisheries;

(24) "resident" means a person who for 12 consecutive months has maintained a permanent place of abode in the state and who has continually maintained a voting residence in the state; and in the case of a partnership, association, joint stock company, trust, or corporation, "resident" means one that has its main office or headquarters in the state; however, a member of the military service who has been stationed in the state for the preceding 12 consecutive months is a resident for the purposes of this paragraph, and the dependent of a resident member of the military service, who has been living in the

CHANGES PROPOSED TO SENATE BILL 457 BY THE DEPARTMENT OF FISH AND GAME

The department's proposed changes are underlined and the language that is deleted is set in brackets.

Sec. 16.05.730. MANAGEMENT OF WILD AND HATCHERY STOCKS OF ANADROMOUS FISH. (a) [The Board of Fisheries] Salmon fisheries in the state shall [manage fisheries in the state] be managed to achieve sustained yield for wild [anadromous fish] salmon stocks.

(b) In [managing] allocating hatchery produced [anadromous fish] salmon stocks, the board shall consider the need of [anadromous fish] salmon hatcheries to obtain brood stock. The board may [manage] direct the department to manage salmon fisheries in the state to achieve an adequate return of hatchery produced [anadromous] salmon stocks to hatcheries for brood stock; however, management to achieve an adequate return to hatcheries for brood stock may not prevent achievement of sustained yield for wild [anadromous fish] salmon stocks.

(c) The board may consider the need of hatcheries authorized under AS 16.10.400 to harvest and sell fish produced by the hatchery that are surplus to the needs for brood stock to offset the cost of operating the hatchery. The board may exercise its authority under this title as it considers necessary to direct the department to provide a reasonable return of surplus fish to a hatchery to offset the cost of operating the hatchery, if the return of surplus fish to the hatchery, or the harvest of surplus fish by the hatchery, does not prevent achievement of sustained yield for wild salmon [anadromous fish] stocks. The board may adopt criteria for determining the reasonable needs of hatcheries for surplus fish and may adopt a fishery management plan to provide surplus fish to a hatchery.

CS FOR SENATE BILL NO. 457 ()
IN THE LEGISLATURE OF THE STATE OF ALASKA
SEVENTEENTH LEGISLATURE - SECOND SESSION

BY

Offered:
Referred:

Sponsor(s): SENATE RULES COMMITTEE BY REQUEST OF THE SENATE SPECIAL COMMITTEE ON
DOMESTIC AND INTERNATIONAL COMMERCIAL FISHERIES

A BILL

FOR AN ACT ENTITLED

1 "An Act relating to management of wild and enhanced stocks of fish; and amending the
2 definition of 'fishery.'"

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

4 * Section 1. AS 16.05 is amended by adding a new section to read:

5 ARTICLE 5. MANAGEMENT OF FISHERIES.

6 Sec. 16.05.730. MANAGEMENT OF WILD AND ENHANCED STOCKS OF FISH.

7 (a) Fisheries in the state shall be managed ^{CONSISTENT WITH} ~~to achieve~~ sustained yield for wild fish stocks and
8 may be managed to achieve sustained yield of enhanced fish stocks.

9 (b) In allocating enhanced fish stocks, the board shall consider the need of fish
10 enhancement projects to obtain brood stock. The board may direct the department to manage
11 fisheries in the state to achieve an adequate return of enhanced fish stocks to enhancement
12 projects for brood stock; however, management to achieve an adequate return of fish to
13 enhancement projects for brood stock may not prevent achievement ^{CONSISTENT WITH} of sustained yield for wild
14 fish stocks.

1 (c) The board may consider the need of enhancement projects authorized under
2 AS 16.10.400 and contractors who operate state-owned enhancement projects under AS 16.10.480
3 to harvest and sell fish produced by the enhancement project that are surplus to the needs for
4 brood stock to offset the cost of operating the enhancement project. The board may exercise its
5 authority under this title as it considers necessary to direct the department to provide a reasonable
6 return of surplus fish to an enhancement project to offset the cost of operating the enhancement
7 project if the return of surplus fish to the enhancement project or the harvest of surplus fish by
8 the enhancement project does not prevent achievement ^{of sustained yield} ~~of~~ sustained yield for wild fish stocks.
9 The board may adopt criteria for determining the reasonable needs of enhancement projects for
10 surplus fish and may adopt a fishery management plan to provide surplus fish to an enhancement
11 project.

12 (d) In this section, "enhancement project" means a project, facility, or hatchery for the
13 enhancement of fishery resources of the state for which the department has issued a permit.

14 * Sec. 2. AS 16.05.940(12) is repealed and reenacted to read:

15 (12) "fishery" means a specific administrative area in which a specific fishery
16 resource is taken with a specific type of gear; however, the Board of Fisheries may designate a
17 fishery to include more than one specific administrative area, type of gear, or fishery resource;
18 in this paragraph,

19 (A) "gear" means the specific apparatus used in the harvest of a fishery
20 resource; and

21 (B) "type of gear" means an identifiable classification of gear and may
22 include

23 (i) classifications for which separate regulations are adopted by the
24 Board of Fisheries or for which separate gear licenses were required by former
25 AS 16.05.550 - 16.05.630; and

26 (ii) distinct subclassifications of gear such as "power" troll gear
27 and "hand" troll gear;

Petersburg Vessel Owners Association

P.O. Box 232
Petersburg, Alaska 99833
Phone (907) 772-9323 Voice and Fax

March 23. 1992

Senator Dick Eliason, Chairman
Senate Special Committee on Domestic &
International Fisheries
P.O. Box V
Juneau, Alaska 99811

Dear Dick,

Now that the King and Tanner crab season has closed, PVOA members have had an opportunity to review the Legislative Hatchery Report. Our sincere thanks to you, your staff, and others who worked hard to make this report possible.

Without a doubt, PVOA's primary concern with regards to the State's hatchery program is the health and viability of our natural wild salmon stocks. Here in Southeast, fishermen have long recognized the importance of our wild salmon runs. It is extremely important to PVOA members that these stocks be given a priority. We suggest that statutory language be adopted which would give wild stocks preferential management treatment relative to hatchery raised fish.

We do not believe the State should have an obligation to guarantee either a return of broodstock nor stocks for cost recovery needs. However, we would recommend that the Department of Fish & Game continue to regulate commercial and sport fisheries to obtain escapement goals of wild stocks to natal streams. These same management techniques would also serve to protect a return of broodstock to hatchery sites. What is good for the wild stocks in their natal streams should also benefit the hatchery stocks at hatchery sites. Efforts should be made to protect broodstock but in no way to guarantee it.

Adopting a clear wild stock priority in State statute which clarifies the Board of Fisheries requirement for hatchery broodstock and cost recovery stocks is action that could easily be undertaken and quickly. The concept of statutory clarification of a wild stock priority which specifically indicates that the State has no obligation to guarantee a return of cost recovery stocks to hatcheries is supported not only by PVOA, but the United Fishermen of Alaska Board of Directors and Southeast Alaska Seiners as well.

Chapter VI of the review deals with the current planning and permitting process. PVOA would support the idea of the development of a statewide planning and production process.

Petersburg Vessel Owners

provided there is regional input. It is important to develop statewide goals and objectives. Each region is ultimately part of the whole picture, the direction a region takes directly and indirectly affects all other regions. State facilities, as well as PNPs, need to comply with a planning and permitting process, with the same requirements for monitoring and review.

Due to our concern for the negative impacts of hatchery production on wild stocks, we support many of the options listed in Chapter VII of the review. PVOA members specifically cited the following options:

- *Evaluation of how well the current hatchery program protects wild salmon from the negative effects of hatchery salmon.
- *Obtaining consensus about research priorities concerning the interaction of hatchery and wild fish, coordinating future studies, and deciding how and when to apply the results of those studies to current management practices.
- *Placing greater emphasis on management concerns in the permitting process in order to protect wild stocks.
- *Re-examination of escapement goals in order to maximize wild productivity.
- *Increased use of marking and tagging programs to monitor interactions between hatchery and wild populations.
- *Policy development to minimize inbreeding and straying, including an evaluation of remote releases.
- *Monitoring hatchery stocks to determine extent of straying and intermingling.

We are anxious to examine the recommended management actions resulting from the Cordova workshop. Please send us a copy of the proceedings when they become available.

PVOA members believe it is important for the State to initiate research to learn more about the dynamics of wild salmon stocks. We are troubled to learn about problems developing in Oregon and Washington concerning impacts of hatchery production on wild stocks. We are concerned about the State's lack of knowledge about wild salmon stocks. If sometime in the future, wild stocks are found to be in peril here in Alaska, the value of hatcheries may be very significant if they could be made into central incubation facilities.

We have several concerns with regards to Chapter VIII which deals with funding. PVOA believes it may be appropriate to consider restricting further hatchery development or increased production until the Legislative economic cost-benefit studies are complete and a full assessment of the hatchery program can be made. Members are particularly concerned that any major additional production should be discouraged unless new markets are established to handle the increase.

In addition, criteria is needed to show that a public benefit exists before granting permits and loans. A detailed cost/benefit analysis would be in order and a specific

indication of the "significant contribution" to the common property fisheries. For existing hatcheries which are not making a "significant contribution" to the common property fisheries, a mechanism must be developed to close such facilities. Fishermen cannot be expected to continue to fund those facilities if no one but the hatchery operators are receiving benefits.

In addition, we believe the following options have merit:

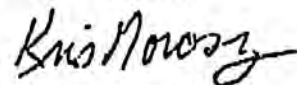
- *An analysis of the enhancement tax program is needed to determine 1) whether costs are distributed in proportion to benefits and 2) the impact of a mechanism to allow specific gear groups to opt out of the program or pay in proportion to the enhancement benefits they receive.
- *Development of an auditing mechanism to ensure that annual PNP operating costs, paid by loans, enhancement tax receipts, and cost recovery, are "reasonable".

Basically the Review contains a lot of good suggestions for improving our State hatchery program. Of course one of the tantamount problems is that of funding, for research, planning and the RPT process, hatchery operations, tagging and marking studies, etc.

Many of our members have commented that when the idea of a State hatchery program was first introduced they saw it as an opportunity to provide minimal steady production of salmon. A program that could help take the extreme highs and lows out of the annual salmon runs. Instead, we have a situation in which hatchery production has been a financial drain on fishermen in Southeast, we have a new group competing for markets, there are poor quality cost recovery fish being placed on the markets, efforts have been made to restrict traditional fishing opportunities in order to protect hatchery stocks, etc. And then on top of all this, no one foresaw farmed salmon being a factor to reckon with.

PVOA members are disenchanted with the direction of the State's hatchery program. We hope that you will take our suggestions under serious consideration. We are sincerely interested in continuing this important review process and are willing to assist you and your staff in any way possible.

Sincerely,



Kris Norosz
Director



Alaska Aquaculture

Incorporated

P.O. BOX 830 WRANGELL, ALASKA 99929
(907) 874-2250

SENATE SPECIAL COMMITTEE ON DOMESTIC AND INTERNATIONAL FISHERIES
FEBRUARY 25, 1992

Gentlemen,

Having not been able to testify during your teleconference, we would like to do so in writing at this time. We will address several issues that may or may not be easily categorized in your February 10 Draft Report, but are germane to the Alaskan Hatchery Program. Thank you first for providing this opportunity.

Alaska Aquaculture, Inc. is an independent PNP, (not a "Mom and Pop") operator, with a board of directors of licensed commercial fishermen that represents all the gear groups of Southeast Alaska. To our knowledge we are the only all-fishermen board. In behalf of our organization the following testimony is proffered.

1) The Draft report covered many valid points. However, the proposed ideas for action have not sufficiently recognized that the mission or mandate for the hatcheries is being accomplished, i.e. to successfully produce salmon to insure an adequate supply for common property harvest. They were not charged with suppressing the wild stocks to maintain price levels. Therefore, rather than focus on restricting production, the focus should be on recapturing market share by 1) improving the quality of product produced and 2) broadening the market by innovative product development. The inertia extant in the processing industry that wants more money for advertising Alaskan canned salmon in overseas markets, is what needs to move into the 20th Century before we see the 21st. New products that take advantage of the potential of pinks and chum need developmental moneys that the State could well afford to invest, rather than paying for canned salmon commercials in Japan and Taiwan.

2) As fishermen, we are not interested in micro-managing fish hatcheries, nor are we interested in seeing multi-million dollar facilities closed down prior to their being able to reach full production and make a contribution to the fishery. They should be encouraged to work with processors to develop better products, especially for pinks and chum, so that demand will increase. This may require novel and interesting new methods, and a strong partnership between government and the private sector. This should not be limited to the State and the Regional Associations. The Independents are a valuable part of the program and should not be treated as third class citizens any longer.

3) If the administration of the loan program is liberalized through legislation or administration, the financial support of independent PNPs must be recognized and provided for in that legislation, or its investment and the best interest of the State and user groups will be lost.

Under the present Hatchery Loan Program scenario, the PNPs have not shared in the millions of dollars of 3% moneys which is shared by the regional corporations, nor the millions of dollars of Federal Mitigation Funds. Given "most favored organization" status by the State

Alaska Aquaculture
Association

agencies, the Regional Aquaculture Associations are also able to generate funds through cost recovery harvest of returning fish. The sole source of funding for PNP operations is the cost recovery harvest! When production development is protracted over several life cycles of the fish being released, the disparity between PNPs and Regional Associations becomes more glaring. Because of this disparity PNP funding before reaching full production depends upon the funds in the revolving loan fund. Legislation providing forgiveness or additional deferment of loan payments by the major borrowers, i.e. the Regional Corporations, without recognizing and compensating for those losses to the revolving loan fund, would effectively eliminate the PNP segment of the State enhancement program.

4) We strongly endorse the idea of developing a Statewide set of goals and objectives for the enhancement programs. All segments of the producers should be allowed to give input, and it should have an aggressive forward looking posture.

5) We are concerned about the suggestion of eliminating the use of remote release sites. The argument against them is at best theoretical while their use is and has been, very effective in placing the right species and run timing in the right place for the benefit of the user groups and the hatchery operator. A central incubation facility can become much more cost effective and beneficial to the user groups by using remote release sites. Concerns about straying and deleterious genetics are based on hypothetical constructs yet to be substantiated.

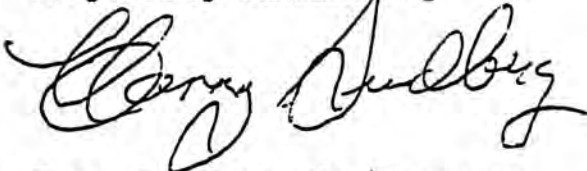
6) Managing for broodstock and cost recovery seems to have evolved into a hot potato where no one wants to make a decision for fear of upsetting one group or another. Ultimately, one needs to ask if loaning moneys to a hatchery operator, whether PNP or Regional Organization is based on the assumption that debt service would be met by cost recovery harvest, (and this is what the State has done) Then doesn't it follow that the intent of the State is for broodstock and cost recovery to be managed for? No operator can afford to continue operating if it doesn't have broodstock and independents cannot operate without cost recovery as it is their sole source of revenue! This issue must be addressed in an equitable manner that reflects a mutually beneficial relationship between the State and the private sector.

7) Several of the biological/genetics/management issues raised result in the possibilities of monitoring, surveying, identifying, etc. All of these action words come with price tags. Since we've mentioned tags, most of the problems outlined from determining the extent of and consequences of straying, to identifying genetic drift, require some form of hatchery stock identification as opposed to wild stock. Tagging costs money and tag recovery and analysis even more. Will we cease hatchery production until "concerned scientists" have resolved their concerns, or will we proceed and fund mass marking and recovery efforts? The 1985 genetics guidelines already mandates identification of areas where stocks are unique or of special "significance". Regional Comprehensive plans, which the public funded to be created and updated, talks of "sensitive zones". In reality little of this work has been done and little resources have been allocated for them to be done. Perhaps our biggest concern is not that the work isn't being done, but that decisions are being made using a policy that is

admittedly vague and inconsistent with animal genetics upon which it claims to draw reference. Even more disconcerting is that their application is applied unequally between State projects and PNP project proposals.

8) Our final comment is more philosophical than specific, but is of great concern: That there has developed an institutionalized dual class of citizenship between Regional Associations and Independent Hatchery operators, a direct result of poorly conceived legislation and the departmental regulation that political posture spawned. Those who have manipulated the fishing community to gain political advantage, have perpetuated the myth that independent operators are some how the enemy of the fishermen and that the Regional Associations, to which their three per cent moneys go are the only friends of the fleet. This fallacy breeds conflict, contention and disunity. We support any effort the legislature can take to move away from the perpetuation of this condition.

Respectfully Submitted by

A handwritten signature in cursive script, appearing to read "Harry Sundberg".

Harry Sundberg, Sec/Treasurer
Alaska Aquaculture, Inc.

Southern Southeast Regional Aquaculture Association, Inc.

2721 Tongass Avenue
Ketchikan, Alaska 99901

Phone: (907) 225-9605
Fax: (907) 225-1348



March 4, 1992

Senator Dick Eliason, Chairman
Senate Special Committee on
Domestic and International Fisheries
P.O. Box V
State Capital
Juneau, Alaska 99811

Re: Report of the Legislative Review of the Alaska Salmon Enhancement Program

Dear Senator Eliason:

Thank you for the opportunity to comment on the review of the Alaska salmon enhancement program. This was a timely and monumental task. I will address only a few points for your committee to consider.

Chapter IV -

1. Hatchery fish should be tagged (marked) with a representative number. Serious consideration should be given to mass marking.
2. Hatchery operators should pay for the marking, but the state should be responsible for the recovery and evaluation.
3. Marking will greatly reduce the mix-stock management problems.
4. Wild stock should be a priority for management.
5. The quality issue can be resolved by changing management practices.

Chapter V -

1. There should be management protection of hatchery broodstock in the near terminal area but there should be no consideration for cost recovery.

SSRAA

March 4, 1992

Page 2

2. Enhancement should supplement the fisheries not dominate a fishery.
3. Economic development fisheries should be secondary to a wild stock priority or a supplement fishery.

Chapter VI -

1. Permits should be issued only if the enhancement effort provides a minimum of 60% (after broodstock) to the common property fishery.
2. If the permittee does not meet the 60% common property interception within four years after reaching the permitted capacity, the permit should be revoked.
3. Enhancement planning should be on a regional basis, not a state wide basis.
4. The state should increase funding for planning and expand the role of the regional planning teams, such as recommendations for allocating enhanced fish.
5. All permits, including state permits, should be subject to the same RPT review as PNP permits.
6. Regional associations should retain siting preference. By statutes, the regionals represent a broader public interest and represent all user groups. Non-regionals do not. Therefore, the public interest is best served by giving preference to regional PNP's.
7. A moratorium should be declared on increased production until the economic evaluation is completed.

Chapter VII

1. The state should fund research to study straying and genetic concerns. There is no consensus among top scientist on how the genetic policy should be changed.
2. The current genetic policy is the best in the nation. It should be changed only when science documents a change is needed.
3. The state should fund an ocean carrying capacity study.
4. Remote release sites should not be considered the same as a hatchery site. Terminal wipe-up fisheries do not impose genetic problems, if the site is suitably separated from wild stocks and the species are matched to the site according to the policy.

March 4, 1992

Page 3

Chapter VIII

1. **DOCED should develop written policies or regulations on how low interest rates are to be established, and deferment periods should be based upon the species being reared.**
2. **DOCED currently applies the maximum interest rate and the minimum initial deferral period. This is creating excessive and unnecessary costs to the program.**
3. **The loan fund should be capped at its current level and let it revolve as intended.**
4. **A better distinction should be made between regional and non-regional PNP's. Currently, regionals only have 26.7% of the total debt and only 6.5% of their total revenue in operational loans. Also, regionals have not used the loan fund for operations for many years. The non-regionals have 53.9% of their total debt and 45.5% of their total revenue in operational loan. Also, the non-regionals have existed for as long as the regionals, but yet most of the non-regionals still depend on operational loans. There should be a limit on how long loans can be made for operations. A maximum of four years after reaching full production should be applied.**
5. **The regionals have the enhancement tax; therefore, it is understandable that the non-regionals would need more operating funds in the start up years. But it is unwise to put regionals on unsound financial basis to assure funds are available to the non-regionals for operative loans.**
6. **It should not be forgotten that should a non-regional default, the state will be the loser. However, if a regional defaults, the fishermen will continue the enhancement tax until the loan is paid. The state never loses on a regional loan; therefore, as a lending practice, DOCED should treat the non-regionals as a much higher risk and fund them more conservatively. This has not been DOCED's practice as evidenced by how highly leveraged the non-regionals are.**

Chapter X

1. **Incentives should be given to processors to develop new markets and new product forms to help the marketing issue.**
2. **The state should continue funding ASMI.**

Chapter XI

1. **Alaska must be more aggressive in getting the chinook quota increased from the U.S./Canada treaty.**

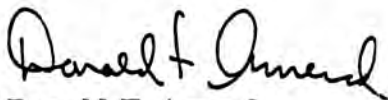
March 4, 1992

Page 4

2. Any user group which is impacted by a treaty quota should be assigned a percentage of the quota. Currently, commercial sport charters are not covered by a percentage of the chinook quota and are impacting the commercial trollers.
3. Any change in environmental regulations for fish hatcheries should be consistent with current, cost-effective technology. If more stringent regulations are developed, the state should provide the funds for existing hatcheries to come into compliance.

I hope my comments are helpful.

Sincerely,



Donald F. Amend
General Manager

75/14E

MADDEN ASSOCIATES

Professional Consultants

P.O. Box 240616
Douglas, Alaska 99824
(907) 586-3847

February 24, 1992

Senator Dick Eliason, Chairman
Senate Special Committee on Domestic and International Fisheries
Alaska State Legislature
P.O. Box V
State Capitol
Juneau, Alaska 99811

Dear Senator Eliason:

Thank you for providing me the opportunity to review and comment on the Executive Summary of the "Draft Report of the Legislative Review of the Alaska Salmon Enhancement Program."

The Special Committee and others who prepared this Report performed a service not only to those directly involved in the Alaska Salmon Enhancement Program but also to the general public in both Alaska and other states and countries impacted by the program. If the achievements and potential of Alaska salmon ranching are to be realized, a better understanding must exist about the intent of the Alaska Legislature in establishing the program, how it has evolved, its current status and options for the future.

In your attachment letter you particularly requested comment on the lists of options following each chapter. My observations are on options and Report discussion of which I am knowledgeable.

I was employed from 1980-90 by the Alaska Department of Fish and Game (ADF&G) Division of Fisheries, Rehabilitation and Enhancement (FRED) as Salmon Rehabilitation and Enhancement Coordinator. In that position I administered the private non-profit (PNP) aquaculture program, regional planning teams (RPT) salmon production planning, and individual state and private hatchery management planning.

My position in FRED involved extensive policy planning for mixed stock fisheries and allocation of enhanced fish. The options developed for Chapter IV, FISHERIES MANAGEMENT, on pp. 6,7 highlight some of the policy issues I addressed. Options and conclusions about mixed-stock fishery management, and responsibility for funding such management tools as tagging have never been fully agreed-upon by either government or the users. Yet, fish tagging, other stock identification programs and the data they supply hold many of the answers about harvest quality and quantity.

The exchange between attorneys, reported in Chapter V, LEGAL ISSUES RAISED BY THE BOARD OF FISHERIES, on the subject of "...perceived ambiguities in Alaska statutes relating to wild stock and hatchery

fish management..." is interesting but too partisan to provide direction, except, maybe, for the August, 1990, letter prepared by Stephen White.

Throughout the development of the PNP hatchery program, protection of the wild stocks has always been the major consideration in permitting hatchery sites. Unfortunately, during the program's early days in the haste to produce fish, both the state and private sectors did not fully grasp the need to plan and control locations and magnitude of releases so that returns would not conflict with wild stock management, conservation and preservation. Until a few year ago when enhancement production from hatcheries or remote release sites took on major fisheries management and economic implications, the PNP and state programs, generally administered by mid-level management except when political considerations dictated higher-level involvement, functioned largely without Board of Fisheries or ADF&G top management direct involvement.

Alaska Statute (AS) 16.10.440 was amended in the 1970's to restrain the Board of Fisheries from being involved in the permitting process for PNP hatcheries. However, the Board clearly maintained under statute its authority to regulate hatcheries after they were permitted in order to control those areas about which there is now concern--fish production and harvest.

In my experience, the Board's only made one overt attempt to set policy under its statutory responsibility over the PNP program. During an informal work session, members agreed that PNP hatchery operators could conduct harvest activities in the "special harvest area"(SHA), designated in the PNP hatchery permit, until cost recovery needs were met. This conclusion was never recorded as an official action. So, to this day confusion remains about the aquaculture associations' jurisdiction over the SHA and their ownership of returning fish, even though the Board could have clarified that matter with formal action.

An effort was made in 1984 to address the question of SHA fish ownership and other hatchery-related issues by a joint committee of the ADF&G, the Alaska Department of Commerce and Economic Development, The Alaska Attorney General's Office and the aquaculture associations. This group agreed that the Board could clarify the management, escapement and allocation issues for all hatcheries through the process of setting policy and developing regulations that addressed any ambiguities in the PNP statutes.

Four issues concerning management of returns to PNP hatcheries were identified. They were:

1. Management of common property fisheries for mixed stocks containing hatchery returns;

Senator Eliason
Page 3

2. Management of segregated returns to PNP hatcheries;
3. Priority uses of fish in excess to corporate escapement goals at PNP hatcheries;
4. Methods and gear employed during PNP hatchery special harvest to satisfy corporate economic goals.

An issue paper, proposed policy and regulations to clarify the Board's role in the allocation of enhanced fish were prepared for Board consideration at its winter meeting at Sitka on February 1, 1985. Unfortunately, before they could be considered at the meeting at the meeting, at someone's request the materials were removed from the agenda. Almost five years passed before the issues again surfaced, this time in a crisis mode.

Then in 1989 the Board directed the Prince William Sound Aquaculture Corporation (PWSAC) to develop a plan for allocating all enhanced salmon in the Area E management district. Through this act the Board appears to have delegated enhanced fish allocation planning to a user group association with directions to develop management plans for enhanced fish, even though management planning traditionally and statutorily has been the responsibility of the ADF&G and the Board.

I don't agree that the Board of Fisheries needs "...statutory policy ...to make decisions that would favor wild stocks over hatchery fish or vice-versa..." or that "...statutes are unclear about recovery, and about the hatchery's obligation to contribute to the common property fisheries." I believe the Board and ADF&G have ample authority to manage and allocate hatchery returns if the Board, ADF&G and the aquaculture associations, as representatives of the user groups, cooperated in developing the necessary policies and regulations to clarify and implement existing statutes.

Based on the above observations, in my judgement neither the conclusions or options of Chapter V on pp. 10,11 are valid.

Chapter VI, PLANNING AND PERMITTING PROCESS, addresses the areas with which I am most familiar. I believe all the options listed for this chapter on page 16 have merit except for the following:

- Widening the scope of the RPT review, including recommendations for allocation of enhancement production.
- Exempting the alteration, suspension, or revocation of an enhancement permit for violations from the Administrative Procedures Act.
- Clarifying Board of Fisheries authority to regulate hatchery

Senator Eliason
Page 4

production levels.

My reasons for not supporting the above options, in order of their listing, are:

The user representatives usually control the RPT's. Such has been the case particularly in recent years, as the aquaculture associations have become more financially affluent, and the ADF&G has cut travel funds so that departmental participation in the planning process has been limited. Another reason for spotty ADF&G participation was that the ADF&G administration for some years did not view the RPT as being a key participant in fishery development, production and management.

Depending on what weight the Board would give RPT recommendations on allocation, the general public might view the result of this RPT involvement in allocation decisions as having the "Fox guarding the henhouse," or the users assuming the Board's responsibility for fishery allocation and the ADF&G responsibility for fishery management.

Taking the permit violation review process out of the Administrative Procedures Act could cause an operator to claim lack of due process and open the State to legal action.

Finally, as I said earlier, the Board of Fisheries already has the authority and responsibility to regulate hatchery production levels, at least in matters when they would impact fishery management decisions or endanger conservation or preservation of wild stocks.

I would make one observation on the text in Chapter VI on page 14 under "5. Allocation Issues." The subsection entitled "Problems and Issues" speaks of the allocation plan developed by PWSAC. Actually, what PWSAC produced is an allocation policy which was then translated by the Prince William Sound RPT into a plan to the extent that it "allocates" through management practices portions of the enhanced fish to various user groups.

Such a plan can only peripherally address the problems of management and harvest of hatchery returns that occurred in Prince William Sound in 1991 and to a lesser extent in 1990. Only the Hatchery Basic and Annual Management Plans, developed in cooperation between ADF&G and PWSAC, have the economic and management tools to deal with the difficult issues of terminal harvest, contribution to the common property, and enhanced fish stocks conflicting with wild stocks harvest or conservation.

In fact after thinking about and rereading the Allocation Issues subsection, I find it confusing and in need of clarification and

Senator Eliason

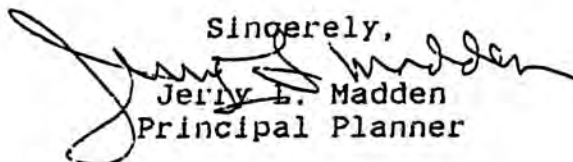
Page 5

further consideration. When the forthcoming economic analysis is available, it may clarify this and other areas of the Report.

I have no comment on the remaining chapters and their options except that the Report seems to have addressed all major areas of concern with the ALASKA SALMON ENHANCEMENT PROGRAM. To my knowledge this is the first time the program has been brought into perspective in one study. I anticipate participating in the teleconferenced hearings.

Thank you for the opportunity to comment.

Sincerely,

A handwritten signature in dark ink, appearing to read "Jerry L. Madden", is written over the typed name and title.

Jerry L. Madden
Principal Planner

SOUTHEAST ALASKA SEINERS ASSOCIATION

P.O. BOX 9579

KETCHIKAN, ALASKA 99901

(907) 225-5156

March 9, 1992

Senator Dick Eliason, Chair
Senate Special Committee on
Domestic and International Fisheries
P.O. Box V
State Capitol
Juneau, Alaska 99811

Dear Dick,

In addition to the oral testimony given by Jim Bacon, President of Southeast Alaska Seiners (SEAS), I am submitting more detailed comments on behalf of SEAS. To assist in your review, I will address my comments to the list of possible options in the Executive Summary.

Wild Stock Priority

The top hatchery priority for SEAS is to seek statutory clarification on giving wild stocks preferential management treatment relative to hatchery raised fish.

Support:

Placing a wild stock priority into state statutes which clarifies Board of Fisheries requirement for hatchery broodstock and cost recovery stocks.

Rationale for Action:

- * The lack of statutory direction prevented the Board of Fisheries in 1991 from acting on a wild stock preference proposal for Southeast Alaska.
- * Legislative history indicates that legislative intent was to protect wild stocks.
- * In some regions of the state there already is serious concern for the negative impact of hatchery production on wild stocks.
- * UFA Board of Directors recently passed a motion supporting statutory clarification for a wild stock management priority which clearly identifies that the state has no obligation for assuring a hatchery's cost recovery.

Recommendation:

Add a new section to AS 16, Chapter 10, Article 8 which states:

Obligation for Management of Hatchery Stocks. In managing commercial and sport fisheries that involve hatchery raised fish, the department shall grant a preference to the protection and sustained yield of wild stocks. In managing for a wild stock preference the department recognizes an obligation to manage commercial and sport fisheries to return broodstock to the hatchery site in the same manner as it regulates fisheries to obtain a return to spawners to natural streams. While the department will not institute any irregular restriction on the traditional fisheries, it will strive for an escapement of spawners sufficient for stocking the hatchery. In managing for a wild stock preference, the department does not recognize any obligation to manage commercial and sport fisheries to return cost recovery stocks to the hatchery site. This however, does not prevent the Board of Fisheries from promulgating regulations at the request of regional non-profit associations to alter commercial and sport fisheries for a return of cost recovery stocks.

Southeast Alaska Seiners
Assoc - Linn

Hatchery Permitting

Another major concern of SEAS is to tighten up the permitting and funding programs for hatcheries.

Support:

As part of permit review and solicitation of state loans, adding new criteria to show public benefit, including marketability, a detailed cost/benefit analysis instead of a financial analysis, an indication of a 70% contribution to be made to the common property fishery, and ability to mark and recover fish. Institute a 10 year permit renewal requirement that would include the same criteria.

Rationale for Action:

- * Regional hatchery associations have over time developed internal policy that reflects the criteria mentioned above. It would be sound state policy to extend this "check" to all hatcheries.

- * UFA supports the Regional Planning Teams adopting a guideline of 70% contribution to common property fisheries in their evaluations of hatcheries.

- * If all hatcheries had gone through this type of review when initially applying for a permit, much of this hatchery overview might have been unnecessary.

- * With the potential risk of impacts on the state's common property fisheries, a mechanism for the timely revocation of a permit is necessary.

Biological Concerns

While legislators can not be expected to evaluate and assess the genetic health and biological diversity of wild stocks that have been co-existing with hatchery stocks, general policy and priority direction can be given to ADF&G and other research institutions. Given the experience in the State of Washington, more effort should be taken in Alaska to protect the biological health of wild stocks. To this end, SEAS supports these options listed in the Executive Summary:

- * Evaluation of how well the current hatchery program protects wild salmon from possible negative effects of hatchery salmon.

- * Conducting research to define the minimum conditions for imprinting for remote release programs.

- * Placing a greater emphasis on management concerns in the permitting process in order to protect wild stocks.

- * Increased use of marking and tagging programs to monitor interactions between hatchery and wild populations.

- * Review of current and future programs for their compliance with the state genetics policy.

Production Review

Given the results of last summer's pink salmon season, i.e. lack of sound markets, and small weight of pinks across the state, SEAS believes it is fair to surmise that the impacts of major hatchery production are no longer confined to one region of the state. Yet, there is no mechanism for a statewide review and modification when hatchery production crosses the threshold of inter-regional impacts. This matter was the subject of a vigorous debate at UFA's fall 1991 meeting. One of the outcomes of that meeting was a letter to Commissioner Rosier asking for a production overview through the Regional Planning Teams. UFA has yet to receive a response from Commissioner Rosier. Before commenting further on other possible options, we would like to learn how and when ADF&G will address this critical concern. Perhaps, the Committee could pursue this further with ADF&G.

Fair Funding

Because of the structure within Regional Aquaculture Associations, it may have been assumed that the user groups that pay the lion's share of tax revenues would receive a sizeable share of the returning fish value. This has not been the case for all regions. In fact, in some cases just the opposite is occurring because it is easy to vote to spend someone else's money. As such we support this option:

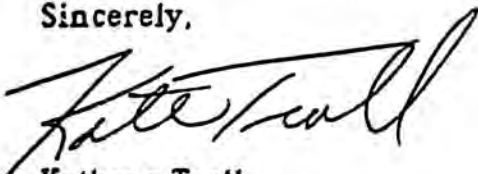
Support: Analysis of the enhancement tax program to determine the impact of a mechanism to allow specific gear groups to opt out of the program or pay in proportion to the enhancement benefits they receive.

While I recognize that the legislative overview will continue on for some time, SEAS urges the Senate Special Committee on Domestic and International Fisheries, to immediately address the outstanding need for wild stock statutory clarification. The Board of Fisheries has requested this direction. More importantly Alaska's wild salmon heritage deserves this critical recognition.

In closing, I must commend the legislative staff that put this concise but comprehensive report together. The Executive Summary did an excellent job of laying out a very complicated issue in a simplified, informed manner. Not only did I enjoy reading the Draft Report, but I learned a lot too. Please extend my appreciation for their efforts.

Thank you for the opportunity to provide input. Please call if you have questions or desire more feedback.

Sincerely,



Kathryn Troll
Executive Director

c.c. SEAS Board of Directors

SCOMM

74:8



Alaska State Senate

Office of the President
Senator Richard I. Eliason, President

To testify on SCR 13

Robin Samuelson, Bd. of Fish

Dave Carlisle -
Biometrician for Comm. Fish
ADF & G

Someone from NMFS
Jim Brooks

Harold Sparks of Bethel
by teleconf. hook-up

Also to attend :

Larry Coffey - NPFMC
By-catch chairman

Greg Seider of UFA

DATE: 2/20/91

FURTHER: Resources

Date of 5-Day Notice: Feb. 28
(in accordance with Uniform Rule 23)

DATE TURNED
INTO OFFICE: _____

Senate Spec. Comte. on Domestic and International
Commercial Fisheries considered

SCR 13

Bycatch of chinook salmon by United States and foreign trawl fisheries.

and recommended:

☒ replace with _____ CS SCR 13 (FSH) ☒ same title
☐ attached amendment(s) ☐ new title
☐ _____ letter of intent adopted

☒ do pass

☐ do not pass

☐ no recommendation

☐ individual recommendations

☐ further referral to _____

ATTACHES NEW FISCAL NOTE(S):

Department(s)/Date:

☒ fiscal note(s) _____

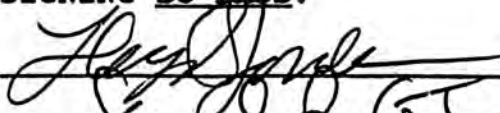
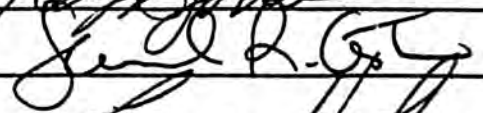
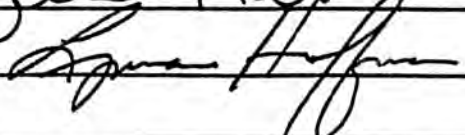
Department(s)/Date:

☒ zero fiscal note(s) _____
ADF & G / 3/5/91

☐ appropriation-no fiscal note

☐ Governor's bill w/fiscal note

SIGNING DO PASS:

OTHER RECOMMENDATIONS:


Chair: Signature and Recommendation

FISCAL NOTE

STATE OF ALASKA
1991 LEGISLATIVE SESSIONBILL NO. SCR 13Revision Date: 3/5/91Department Affected: Fish and GameTitle: Bycatch of Alaska ChinookBRU: Commercial Fisheries and Sport FishSalmon

Component: _____

Sponsor: Senator HoffmanRequestor: Governor

COMPONENT SERIAL NO.

	4	5	9
	4	6	1
	4	6	5

Expenditures/Revenues: (Thousands of Dollars)

OPERATING	FY 92	FY 93	FY 94	FY 95	FY 96	FY 97
PERSONAL SERVICES	0	0	0	0	0	0
TRAVEL	0	0	0	0	0	0
CONTRACTUAL	0	0	0	0	0	0
SUPPLIES	0	0	0	0	0	0
EQUIPMENT	0	0	0	0	0	0
LAND & STRUCTURES	0	0	0	0	0	0
GRANTS, CLAIMS	0	0	0	0	0	0
MISCELLANEOUS	0	0	0	0	0	0
TOTAL OPERATING	0	0	0	0	0	0

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

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

POSITIONS:

FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

Estimate of current year impact: None

ANALYSIS: (Attach a separate page if necessary.)

Changes in SSCR13 (FSH)
have no fiscal impact. This
fiscal note is appropriate.
M.M.
3-8-91
date Comte Aide (initial)

Prepared By: Bob ClabbyPhone: 465-4210Division: Commercial FisheriesDate: 3/5/91Approved by Commissioner: CARL RESLERAgency: ADF+GDate: 3/6/91

Distribution (by preparer): Legislative Finance, Legislative Sponsor, Requestor, OMB, & Impacted Agency(ies).

CS FOR SENATE CONCURRENT RESOLUTION NO. 13 (FSH)**IN THE LEGISLATURE OF THE STATE OF ALASKA****SEVENTEENTH LEGISLATURE - FIRST SESSION**

BY THE SENATE SPECIAL COMMITTEE ON DOMESTIC AND INTERNATIONAL COMMERCIAL FISHERIES

Offered:

Referred:

Sponsor(s): SENATOR HOFFMAN

A RESOLUTION

**1 Relating to the bycatch of Alaska chinook salmon by United States and foreign trawl
2 fisheries.**

3 BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

4 WHEREAS salmon of Alaska origin are important to the people of Alaska for subsistence, sport,
5 and commercial fisheries; and

6 WHEREAS chinook salmon are one of the most prized and valuable species of Alaska salmon;
7 and

8 WHEREAS chinook salmon originating in Alaska range extensively along the Alaska coast and
9 out into the North Pacific; and

10 WHEREAS the State of Alaska has a vested interest in the conservation of chinook salmon
**11 populations originating within Alaska, and throughout western North America, due to its active
12 involvement in numerous national and international salmon management bodies and treaties; and**

13 WHEREAS new information from the National Marine Fisheries Service observer program
**14 reveals a significant bycatch of chinook salmon in the United States Exclusive Economic Zone that
15 [REDACTED] the chinook salmon conservation programs of the State of Alaska and the Pacific Salmon
16 Commission allocation of chinook salmon to the Southeast Alaska troll fishery; and**

1 **WHEREAS** new information from domestic and federal observers also strongly indicates a
2 significant bycatch of chinook salmon in the international waters of the central Bering Sea "donut hole";
3 and

4 **WHEREAS** biological information developed by the Fisheries Research Institute of the
5 University of Washington and accepted by the International North Pacific Fisheries Commission has
6 determined that the chinook salmon in the Bering Sea are primarily North American in origin and from
7 streams in Southcentral, Southeast, and western Alaska as well as from British Columbia; and

8 **WHEREAS** bycatch occurs on a mixture of salmon stocks well before run strength can be
9 assessed and thus reduces the number of fish available in inshore areas and increases the risk of
10 overharvest; and

11 **WHEREAS** the chinook salmon fisheries on the Yukon River and in Southeast Alaska are
12 transboundary river fisheries, and the lack of chinook salmon strains the relationship among Alaska, the
13 other West Coast states, and Canada, including its provinces and territories;

14 **BE IT RESOLVED** by the Alaska State Legislature that the Governor petition the North Pacific
15 Fishery Management Council and the United States Secretary of Commerce [REDACTED] to
16 emergency regulations to limit the bycatch of chinook salmon in the 1991 trawl fisheries in the United
17 States Exclusive Economic Zone, and to expedite a 1992 chinook salmon bycatch plan amendment to
18 the Bering Sea/Aleutian Island and Gulf of Alaska Groundfish Fishery Management Plans; and be it

19 **FURTHER RESOLVED** that the Governor petition the North Pacific Fishery Management
20 Council and the United States Secretary of Commerce to implement emergency regulations limiting the
21 bycatch of Alaska chinook salmon by domestic trawlers in the central Bering Sea "donut hole"; and be
22 it

23 **FURTHER RESOLVED** that the Governor petition the United States Secretary of Commerce
24 to identify the complete range of chinook salmon as defined in the 1990 revisions of the Magnuson
25 Fishery Conservation and Management Act and implement a rebuttable presumption for the interception
26 of chinook salmon beyond the United States Exclusive Economic Zone; and be it

27 **FURTHER RESOLVED** that the Governor petition the United States Secretary of State,
28 Secretary of Commerce, and Secretary of Transportation to immediately initiate international negotiations
29 to end fishing within the "donut hole" in order to protect Alaska chinook salmon; and be it

30 **FURTHER RESOLVED** that the Governor request the United States Secretary of State,
31 Secretary of Commerce, and Secretary of Transportation to authorize the United States Coast Guard to
32 seize, under the authority of the Magnuson Fishery Conservation and Management Act as well as other

1 treaties or bilateral agreements as might be appropriate, vessels discovered with contraband salmon on
2 board, with such vessels to be sequestered in United States ports until disposition by the Federal Courts.

3 **COPIES** of this resolution shall be sent to the Honorable James A. Baker, III, Secretary of the
4 U.S. Department of State; to the Honorable Robert A. Mosbacher, Sr., Secretary of the U.S. Department
5 of Commerce; to the Honorable Samuel K. Skinner, Secretary of the U.S. Department of Transportation;
6 and to the Honorable Ted Stevens and the Honorable Frank Murkowski, U.S. Senators, and the
7 Honorable Don Young, U.S. Representative, members of the Alaska delegation in Congress.

Draft copy

DEPARTMENT OF FISH AND GAME

POSITION PAPER

Bill No: SCR 13

Sponsor: Senator Hoffman

Division: Commercial Fisheries

Bill Title: Bycatch of Alaska Chinook Salmon

Department Position: Support

Background/Legislative Intent:

This resolution seeks to petition the federal government, and the federal agencies responsible for managing or enforcing fishery regulations, to move quickly to limit/reduce the unintended bycatch of chinook salmon in domestic trawl fisheries and on high seas fisheries conducted by foreign fleets.

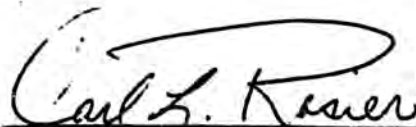
Analysis of Bill/Program Effects:

The effect of this resolution would be to increase the amount of chinook salmon surviving to return to coastal areas where they would be harvested by sport, commercial and subsistence fishermen. In some instances, significant returns of chinook, could alleviate existing allocation problems.

Amendments proposed:

- (1) - Suggest a wording change in the 3rd WHEREAS which reads: WHEREAS chinook salmon originating in Alaska range extensively along its coast and out into the North Pacific; and
- (2) - Suggest that the 5th WHEREAS add the words "could possibly" before the word affect(s) in line 15.
- (3) - Suggest that the 8th WHEREAS which talks about implications on management programs be changed to read:
"WHEREAS bycatch occurs on a mixture of stocks, well before run strength can be assessed, and thus reduces the number of fish available in inshore areas and increases the risk of overharvest, and;"

Commissioner's Signature


Carl L. Rosner

Date 3/6/91

FISCAL NOTE

STATE OF ALASKA
1991 LEGISLATIVE SESSIONBILL NO. SCR 13Revision Date: 3/5/91Department Affected: Fish and GameTitle: Bycatch of Alaska Chinook
SalmonBRU: Commercial Fisheries and Sport Fish

Component: _____

Sponsor: Senator HoffmanRequestor: Governor

COMPONENT SERIAL NO.

	4	5	9
	4	6	1
	4	6	4

Expenditures/Revenues: (Thousands of Dollars)

OPERATING	FY 92	FY 93	FY 94	FY 95	FY 96	FY 97
PERSONAL SERVICES	0	0	0	0	0	0
TRAVEL	0	0	0	0	0	0
CONTRACTUAL	0	0	0	0	0	0
SUPPLIES	0	0	0	0	0	0
EQUIPMENT	0	0	0	0	0	0
LAND & STRUCTURES	0	0	0	0	0	0
GRANTS, CLAIMS	0	0	0	0	0	0
MISCELLANEOUS	0	0	0	0	0	0
TOTAL OPERATING	0	0	0	0	0	0

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

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

POSITIONS:

FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

Estimate of current year impact: None

ANALYSIS: (Attach a separate page if necessary.)

Prepared By: Bob ClasbyPhone: 465-4210Division: Commercial FisheriesDate: 3/5/91Approved by Commissioner: CARL ROSIER by M. C. CagwellAgency: ADF+GDate: 3/6/91

Distribution (by preparer): Legislative Finance, Legislative Sponsor, Requestor, OMB, & Impacted Agency(ies).



UNITED FISHERMEN OF ALASKA

211 4th Street, Suit 112
Juneau, AK 99801
907-586-2820
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MEMBER ASSOCIATIONS

Alaska Crab Coalition
Alaska Independent Fishermen's
Marketing Association
Alaska Longline Fisherman's
Association
Alaska Trollers Association
Bering Sea Fishermen's Association
Bristol Bay Driftnetters Association
Concerned Area 'M' Fishermen
Cook Inlet Aquaculture Association
Copper River Fishermen's Cooperative
Cordova District Fishermen United
Kenai Peninsula Fishermen's Association
North Pacific Fisheries Association
Northern Southeast Regional
Aquaculture Association
Peninsula Marketing Association
Petersburg Vessel Owners Association
Prince William Sound
Aquaculture Association
Prince William Sound Seiners Association
Seafood Producers Cooperative
Southeast Alaska Seiners
Southern Southeast Regional
Aquaculture Association
United Cook Inlet Drift Association
United Southeast Alaska Gillnetters
Western Alaska Cooperative
Marketing Association

March 7, 1991

Special Committee on Domestic and International Fisheries Testimony for SCR 13

Mr. Chairman and members of the Committee:

My name is Greg Seider. I am the Executive Director of the United Fishermen of Alaska. I would like to address the committee today in favor of Senate Concurrent Resolution #13.

In the Bering Sea/Aleutian Islands reporting area there has been an alarming increase in the chinook (or king salmon) bycatch in the first two months of this year, 1991. It already was double the amount taken from January 1, 1990 through November 11, 1990. The total bycatch estimates for 1989 in this area, based on domestic observer data, ranged from 29,210 to 34,320 king salmon. During the period from January 1, 1991 to February 24, 1991 the cumulative king salmon bycatch total, as reported by the National Marine Fisheries Service was 26,823 fish.

Based on the harvest figures for chinook salmon in the Bering Sea/Aleutian Islands for 1989 the bycatch amounted to 13 - 15% of the total legitimate harvest.

Some indication of the economic impact of the loss of these fish to Alaska can be gained by the following illustration. If the estimated 34,320 chinook salmon had returned to the Lower Yukon Area in 1989 and upon harvest would have averaged 23 pounds, the total weight of these fish would have been 789,360 pounds. The price of king salmon in the Lower Yukon in 1989 was \$2.77 per pound. The total ex-vessel loss to the fishermen was \$2,186,527. If we consider the loss to the local economy using the accepted multiplier of 2.5 times the ex-vessel price the amount of \$5,466,317 can be added to the ex-vessel loss for a total of 7,652,844. This is illustrated best by the table I prepared for you:

Salmon Return	Average Weight	Total Weight	1989 \$/#	Ex-vessel Loss	Standard Multiplier	Loss to Economy	Total Loss
34,320	23	789,360	\$2.77	\$2,186,527	2.5	\$5,466,317	\$7,652,844

This of course is a very over simplified example but it does graphically illustrate in dollars and cents what is at risk when we discuss the bycatch issue. Please bear in mind that this simple example does not consider other economic ramifications to the State of Alaska in lost raw fish tax; or the value of other lost stocks: herring, blackcod, halibut, crab, or other salmon species. There is a possible additional loss of revenue because of time area closures of other salmon fisheries to allow for adequate escapement of weak chinook stocks has not been considered.

The above model also does not consider the impact on tourism; the sport fishing lodges in Western Alaska will not maintain their past success in booking clients if chinook stocks are severely impacted. The well-being of the subsistence user has not been considered. There certainly is a tangible economic hardship if enough fish do not return to the river systems to supply subsistence needs.

A greater bycatch problem may be developing this year than in past years in the Gulf of Alaska or the Bering Sea "donut hole"; however, I have not cited any correlating data.

A recent paper from the Alaska Department of Fish and Game has noted "...districts such as Bristol Bay, and perhaps Cook Inlet and the Copper River, ...have experienced a significant drop in the numbers of returning fish in spite of adequate escapement."

There is no absolute data that resolves what happened to these chinook salmon but every indication is that the growth of the domestic trawl fisheries, with no significant incentive to avoid bycatch of chinook salmon and other prohibited species, has been detrimental to these stocks.

This resolution is a starting point to deal with the very complex bycatch issues. I would urge you to support this measure with the following suggested change: lines 18 to 20 on page 2 appear to be aimed at a temporary solution. It might be preferable to reword this portion to read:

"FURTHER RESOLVED that the Governor petition the North Pacific Fishery Management Council and the United States Secretary of Commerce to implement permanent [emergency] regulations limiting the bycatch of Alaska chinook salmon by domestic and foreign trawlers in the central Bering Sea "donut hole"; and be it"

New text underlined [Deleted text bracketed]

Thank you very much for the opportunity to address you on SCR 13.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

BOARD OF FISHERIES

WALTER J. HICKEL, GOVERNOR

PO. BOX 3-2000
JUNEAU, ALASKA 99802-2000
PHONE: (907) 485-4110
FAX: 483-5331

February 12, 1991

Steve Pennoyer
Regional Director
Alaska Region
National Marine Fisheries Service
P.O. Box 1668
Juneau, Alaska 99802

Post-It™ brand fax transmittal memo 7871		# of pages > 5
To	Molly McCammon	From
Co.	Sen. Hoffmann	Co.
Dept.		Phone #
Fax #	465-4523	Fax #

Dear Mr. Pennoyer:

The State of Alaska, Board of Fisheries is extremely concerned with the high rate of salmon by-catch in area 517 by the mid-water pollock trawl fishery.

We formally request you take immediate action to address this unacceptable high rate of salmon by-catch. We would strongly support an immediate closure of all or parts of area 517 and, if necessary, area 518 under your "hot spot" authority and would naturally support such closures in Federal Waters with closures of state waters in the contiguous areas.

We seek an immediate response from you and the North Pacific Fishery Management Council at the earliest date possible. An analysis of what actions might conceivably be taken by the council in the coming year to address this issue would also be in order and greatly appreciated.

Thank you.

Sincerely,

Michael R. Martin
Mike Martin
Chair
Board of Fisheries

Deborah Lyons
Deborah Lyons
Chair
By-Catch Committee

cc: Governor Hickel
Clarence Pautzke, Chairman, NPFMC
Commissioner of Fish and Game

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

OFFICE OF THE COMMISSIONER

WALTER J. HICKEL, GOVERNOR

P.O. BOX 3-2000
JUNEAU, ALASKA 99802-2000
PHONE: (907) 485-4100

February 13, 1991

Steve Pennoyer
Director
Alaska Region
National Marine Fisheries Service
P.O. Box 1668
Juneau, Alaska 99802

Dear Mr. Pennoyer:

As you are aware, the Bering Sea trawl fishery has exhibited some startlingly high bycatch rates for chinook salmon during the first several weeks of 1991. The incidental harvest of some 20,000 chinook by February 3 has fishermen, biologists, and the Alaska Board of Fisheries very alarmed. Past reports of chinook bycatch in the Gulf of Alaska and in the "donut hole" of international waters of the central Bering Sea are also of great concern.

The Department of Fish and Game has developed a summary of the 1991 bycatch to date, based upon initial observer reports, and comparisons to past levels of chinook catches, both as bycatch and as directed harvest in state waters (enclosed). The few stock identification studies available indicate that the majority of chinook taken in Bering Sea trawl fisheries are likely from western and central Alaska stocks. Most of these stocks are already fully allocated to commercial, sport, and/or subsistence fisheries, and several of them are suffering declines in run strength.

(The additional pressure of bycatch on these stocks may, in at least a few instances, constitute a conservation problem; it certainly constitutes a reallocation of state-managed resources. Given the obvious disputes between our own fishermen over even small numbers of kings in many systems, I am sure you understand our concern for yet another source of mortality, let alone one that is truly incidental and of no apparent benefit.)

I believe that this problem warrants your immediate attention. We encourage the National Marine Fisheries Service (NMFS) to monitor the salmon bycatch very closely and make projections of any additional take expected during the 1991 groundfish fisheries. In addition, I ask that you review your authorities to institute time/area ("hot spot") closures or other emergency measures to protect Alaskan chinook stocks. Because of the importance of these

February 13, 1991

stocks to our traditional fisheries, we are urging you to consider emergency action as requested by the Board of Fisheries.

As a potential point of reference, we note that foreign and joint-venture fishermen were able to control their annual chinook bycatch rates from 115,100 chinook salmon per 1.33 million mt of groundfish (0.087 chinook/mt) in 1980 down to about 0.004 chinook/mt in 1986. Presumably we should expect our own domestic fishermen to exhibit the same, if not better, control of their impacts on the resources upon which other domestic fishermen depend. I suggest that NMFS, in the short term, and perhaps the North Pacific Fishery Management Council, consider a bycatch management program that would limit chinook take to, at maximum, a commensurate 0.004 chinook/mt. For 1990, this rate would have restricted bycatch to approximately 6,600 chinook for the 1.65 million mt of groundfish taken, rather than the 14,000 chinook reported by observers. Similar protection may also need be afforded in the Gulf of Alaska and the donut hole.

Steve, I know that this is not a simple issue. On the other hand, it is not an issue easily dismissed. The burden of responsibility lies properly with the newly exploding groundfish fishery rather than with the established and traditional users of chinook salmon. I look forward to your consideration of the control of this bycatch and offer the assistance of ADF&G staff for any further data analysis which may be necessary. Please keep us apprised of your actions. Thanks.

Sincerely,



Ron Somerville
Deputy Commissioner

Enclosure

cc: Michael Martin
Clem Tillion
Clarence Pautzke
Denby Lloyd

**1991 Chinook Salmon Bycatch Summary
February 13, 1991**

**Alaska Department of Fish and Game
Division of Commercial Fisheries**

**Current Status of Chinook Bycatch in the Groundfish Fisheries of
the Bering Sea/Aleutian Islands and the Gulf of Alaska**

As of February 3, 1991 an estimated 20,708 chinooks had been caught incidentally in the groundfish fisheries of the Bering Sea/Aleutian Islands (BS/AI). An additional estimated 2,213 chinooks had been caught in the Gulf of Alaska groundfish fisheries, primarily in the midwater trawl fishery for pollock.

In the BS/AI, the vast majority of the bycatch has occurred in the pollock midwater trawl fishery, predominantly from federal statistical area 517 and, to a lesser extent, statistical area 515. The pollock fishery was initially concentrated in statistical area 517 and, during the last two weeks of January, expanded to include statistical area 515. As of February 3, the bycatch rates for these two areas were 0.325 and 0.013 chinooks/mt of groundfish, respectively. Federal statistical areas are indicated in Figure 1a.

In addition, preliminary data from groundfish vessels in the Donut Hole suggest bycatches of chinook salmon that could be in excess of 60,000 in 1990.

BS/AI Groundfish Catch and Chinook Bycatch: 1990 VS. 1991

This year, by January 27, both reported groundfish catch and reported chinook bycatch in statistical area 517 had increased dramatically compared to the same period in 1990. However, the observer program was newly established in 1990 and actual observer coverage was very minimal prior to March 1990. Therefore, it is possible that the actual chinook bycatch for the first month of 1990 in the entire Bering Sea was higher than the approximate 3,000 chinooks reported.

By January 27, reported groundfish catch and chinook bycatch for 1990 and 1991 in statistical area 517 of the BS/AI was:

<u>YEAR</u>	<u>GROUNDFISH (MT)</u>	<u>CHINOOKS (NOS.)</u>	<u>BYCATCH RATE (NOS./MT)</u>
1990	7,657	383	0.05
1991	53,872	12,316	0.23

Cumulative bycatches of chinook salmon through the week ending February 3 are shown in Figure 1.

Commercial Catch History and Health of Chinook Salmon

The total statewide commercial harvest of chinook salmon has been relatively stable since the late 1980's. The projected total statewide commercial harvest for 1991 is 672 thousand chinook salmon (Geiger and Savikko, 1991). The total statewide harvest in 1990 was 665 thousand chinooks.

On the district level, the Bristol Bay chinook salmon stocks have suffered the greatest decline. Chinook salmon numbers have dropped since the early 1980's raising concern over the health of the Nushagak and Togiak River runs. The number of chinook harvested in the Cordova district (Copper River) and the Cook Inlet district (Kenai River) have also declined since 1987. According to area management biologists, the Yukon and Kuskokwim stocks are currently in a rebuilding phase after lower-than-optimum returns in the mid-1980's.

The total annual commercial catch for districts or combined districts from the years 1980 - 1990 are provided in Figure 2. The total bycatches of salmon for each year are provided in this figure as well. The projected 1991 harvest by district, the 1980-1990 average, the 1990 catch, and comments are provided below:

Yukon/Kuskokwim	The 1991 projected harvest of 166 thousand chinook salmon is below the 1990 harvest of 190 thousand chinook salmon and below the 11 year average of 198 thousand fish. The 1990 catch was 95.7% of the 11 year average.
Bristol Bay	The 1990 harvest of 33 thousand chinook salmon was 28.0% of the 1980-90 average of 118 thousand fish. The projected 1991 harvest is 45 thousand fish, an increase from the 1990 catch. However, the chinook salmon catch in the Nushagak district has been in decline since 1984. There has been no directed commercial fishery for chinook salmon since 1986.
Ak Pen/Chignik	The eleven year average of 33 thousand chinook salmon is less than the 1990 catch of 35 thousand chinook. However, the 1991 projected harvest of 22 thousand fish is well below the average.
Kodiak	Although historically small, the commercial catch in Kodiak has risen from between 1 and 5 thousand chinook salmon during the period

1980-87, to 22 thousand in 1988 and 19 thousand in 1990. The 1991 projected harvest is 15 thousand fish.

Cook Inlet . . Although high chinook harvests were reported in 1986 and 1987 (40 and 41 thousand fish, respectively), the 1990 harvest of 18 thousand chinook salmon was 75.9% of the eleven year average of 24 thousand fish. The 1991 projection is for 32 thousand chinook salmon.

Cordova The 1990 harvest of 22 thousand chinook salmon was lower than the 1980-90 average of 34 thousand fish. However, the run is thought to be stable and the 1991 projected harvest is 42 thousand chinook salmon.

Origins of Chinook Salmon Caught Incidentally in Groundfish Fisheries

Information on the origins of chinook salmon caught incidentally in trawl and other fisheries of the Bering Sea comes primarily from salmon scale pattern analysis. The study most relevant to the groundfish fisheries is Myers and Rogers (1988). Scales collected by groundfish observers were analyzed to identify the origin of chinook salmon bycaught in the foreign and joint-venture groundfish fisheries in the Bering Sea EEZ during 1979, 1981 and 1982. The percent origin of chinook salmon from various regions and within the Western Alaska region over all three years was:

Western Alaska		60 %
Yukon	17 %*	
Kuskokwim	24 %*	
Bristol Bay	29 %*	
Central Alaska		17 %
Asia		14 %
S.E. Alaska/British Columbia		9 %

* Not intended to sum to Western Alaska total percentage.

Myers and Rogers indicated that the predominant ages of chinook salmon in the western Alaska commercial catches were ages 1.3 (years in fresh water, years in salt water) and 1.4. They speculated that the greatest effect of large incidental catches of ages 1.2 and 1.3 chinooks offshore on inshore harvests would likely occur 1 or 2 years later.

Davis (1990) also used scale pattern analysis to determine origins of chinook salmon near Japanese mothership and landbased driftnet

salmon fisheries in 1985 and 1986. Based on scales collected in the vicinity of the mothership fisheries (north of the Aleutians and between 175°E and 175°W) the percent origin of immature (age-1.2) chinook salmon was:

	<u>1985</u>	<u>1986</u>
Western Alaska	58 %	10 %
Central Alaska	3 %	17 %
Asia (Kamchatka)	39 %	73 %

A previous study of chinooks from the area of the Japanese mothership salmon fishery, 1975 to 1981 (Myers et al., 1987), indicated the following percentage origin of chinooks from the Bering Sea:

Western Alaska	70 %
Yukon	48 %*
Kuskokwim	21 %*
Bristol Bay	14 %*
Central Alaska	10 %
Asia	18 %
S.E. Alaska/British Columbia	2 %

* Not intended to sum to Western Alaska total percentage.

Davis (1990) cites additional scale pattern studies (Major et al. 1975, 1977a,b) which also indicated "that western Alaskan fish predominated in the Bering Sea and that the proportion of western Alaskan fish increased to the east".

Tagging data to determine region of chinook origin have been very limited but tend to corroborate results of scale pattern analyses (Myers and Rogers, 1988). Although scales from chinooks are currently being collected by observers, no scale pattern analysis is currently being conducted to determine the origin of chinook salmon bycaught in the groundfish fisheries. Observers are also collecting the heads of salmon with clipped adipose fins for potential recovery of coded wire tags.

Potential Future Chinook Bycatch

As of February 3, 59 % of the pollock roe season quota had been taken in the Bering Sea, 61 % of the Bogoslof management area (Figure 1a) quota had been taken and 18 % of the Aleutian Islands quota had been taken. At these rates of fishing, the Bering Sea

and Bogoslof quotas will probably be attained near the end of February. Once the roe season pollock quota has been taken in the Bering Sea, it is expected that a large percentage of the fleet will shift to the Aleutians for what remains of a minimal quota on pollock, to bottom trawling for Pacific cod and other species, and to the Gulf of Alaska for pollock.

As of February 3, only 9 % of the Pacific cod quota in the BS/AI had been taken. In 1990, the chinook bycatch rate in the Pacific cod bottom trawl fishery (range: 0 - 0.043 chinooks/mt groundfish) exceeded the rate in the pollock midwater trawl fishery (range: 0 - 0.020 chinooks/mt groundfish) in eight of the ten management areas. The 1990 chinook bycatch rate in the Pacific cod trawl fishery in statistical area 517 (0.037 chinooks/mt groundfish) was over twice the corresponding rate in the pollock midwater trawl fishery in statistical area 517 (0.016 chinooks/mt groundfish). This suggests the possibility of continued high bycatch of chinook salmon even after the fleet shifts to fishing for Pacific cod and other species.

A shift of boats to the Gulf of Alaska could increase the bycatch of chinook salmon in the Gulf, where bycatch of chinooks exceeded that of the BS/AI in 1990 (see Figures 3 and 4). It should be emphasized that the early-year bycatch of chinooks in 1990 in the Bering Sea may have been similar to that reported for January 1991, but may have been largely unreported due to the delays in implementing the observer program in 1990. Thus, the apparent increase in chinook bycatch in 1991 compared to 1990 may in part be an artifact of inadequate observer coverage in early 1990. Weekly and cumulative bycatches of chinook salmon for 1990 in the Bering Sea are shown in Figure 5. The same information for chinook salmon bycatch in the Gulf of Alaska is shown in Figure 6.

In addition to incidental catches of chinook in the groundfish fisheries of the U.S. EEZ, the bycatch of chinooks in the groundfish fisheries in the Donut Hole should be taken into account in evaluating the potential impact of bycatch on the directed catches of chinook salmon.

To fully understand the impact of chinook salmon bycatch on Alaskan salmon stocks will require a detailed analysis of the data provided by onboard observers. Additional information concerning the origin of the stocks of salmon being intercepted by the trawl fleet is also necessary to reveal specifically affected stocks. Scale pattern analysis, tag recovery, and genetic stock identification are means which can be incorporated to identify stock origins. Knowledge concerning the affect of chinook salmon bycatch on Alaskan stocks is especially necessary in the case of districts such as Bristol Bay, and perhaps Cook Inlet and the Copper River, which have experienced a significant drop in the numbers of returning fish in spite of adequate escapement.

References

Davis, N.D. 1990. Origins of chinook salmon in the area of the Japanese mothership and landbased driftnet salmon fisheries in 1985 and 1986. (INPFC Doc.) FRI-UW-9015. Fish. Res. Inst., Univ. Washington, Seattle. 34pp.

Geiger, H.J. and H. Savikko. 1991. Preliminary forecasts and projections for 1991 salmon fisheries and summary of the 1990 season. RIR No. 5J91-01. Comm. Fish Div., ADF&G, Juneau, AK.

Guttormsen, M., R. Narita, and J. Berger. 1990. Summary of U.S. observer sampling of foreign and joint venture fisheries in the northeast Pacific Ocean and eastern Bering Sea, 1989. NOAA Tech. Mem. NMFS F/NWC-189.

Major, R.L., S. Murai, and J. Lyons. 1975. Scale studies to identify Asian and western Alaskan chinook salmon. INPFC Annual Report 1973:80-97.

Major, R.L., S. Murai, and J. Lyons. 1977a. Scale studies to identify Asian and western Alaskan chinook salmon. INPFC Annual Report 1974:78-81.

Major, R.L., S. Murai, and J. Lyons. 1977b. Scale studies to identify Asian and western Alaskan chinook salmon. INPFC Annual Report 1975:68-71.

Myers, K.W., C.K. Harris, C.M. Knudsen, R.V. Walker, N.D. Davis and D. E. Rogers. 1987. Stock origins of Chinook salmon in the area of the Japanese mothership salmon fishery. N. Amer. J. Fish. Manage. 7:459-474.

Myers, K.W. and D.E. Rogers. 1988. Stock origins of Chinook salmon in incidental catches by groundfish fisheries in the eastern Bering Sea. N. Amer. J. Fish. Manage. 8:162-171.

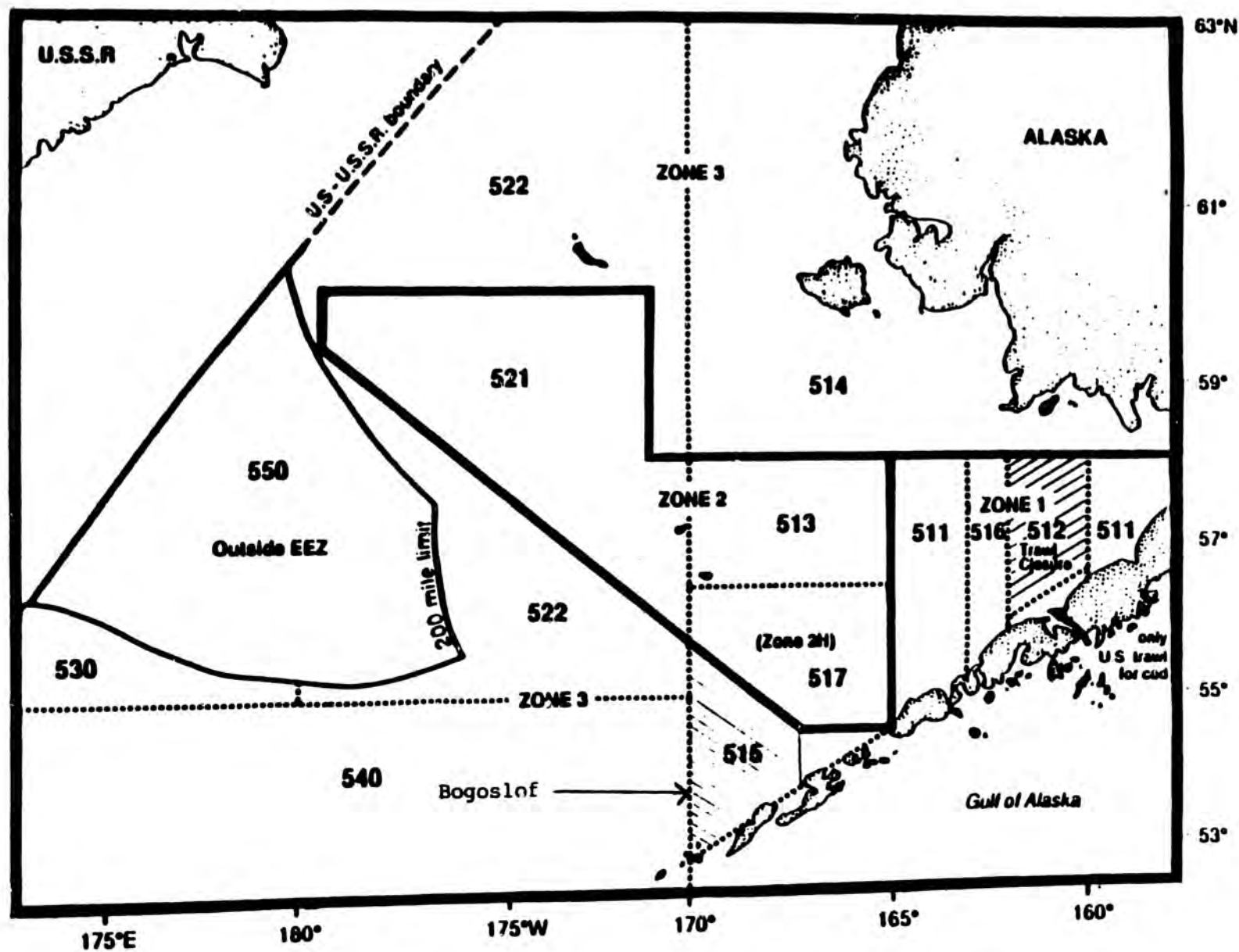


Figure 1a. Bering Sea federal statistical zones and areas (from: Guttormsen et.al.).

Figure 1. Cumulative numbers of chinook salmon caught incidentally in the groundfish fisheries in the Bering Sea/Aleutian Islands, 1990 and 1991.

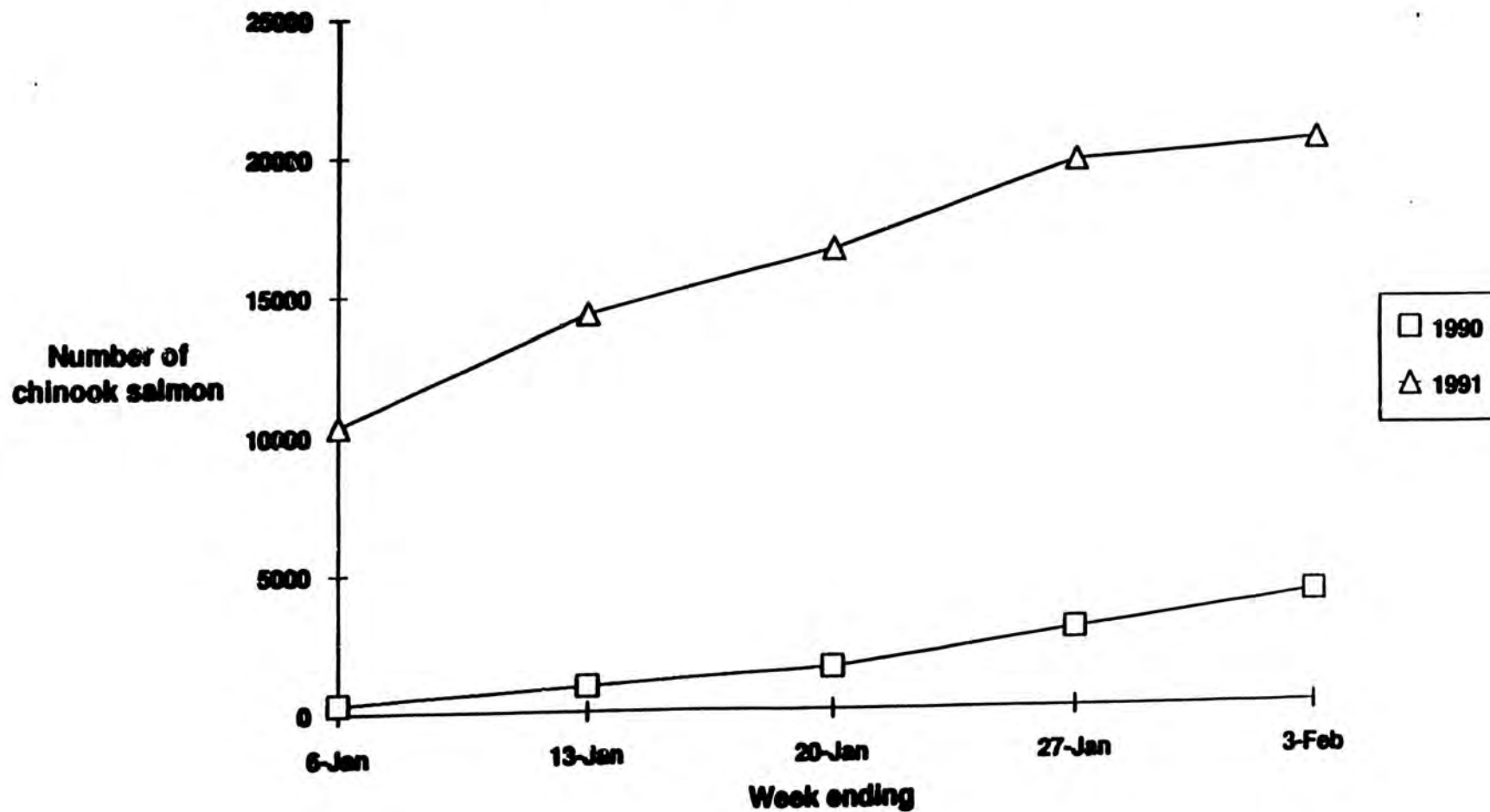


Figure 2. Catch of chinook salmon in directed commercial salmon fisheries and bycatch of chinook salmon in the groundfish fisheries in the Bering Sea/Aleutian Islands and Gulf of Alaska, 1980 - 1991.

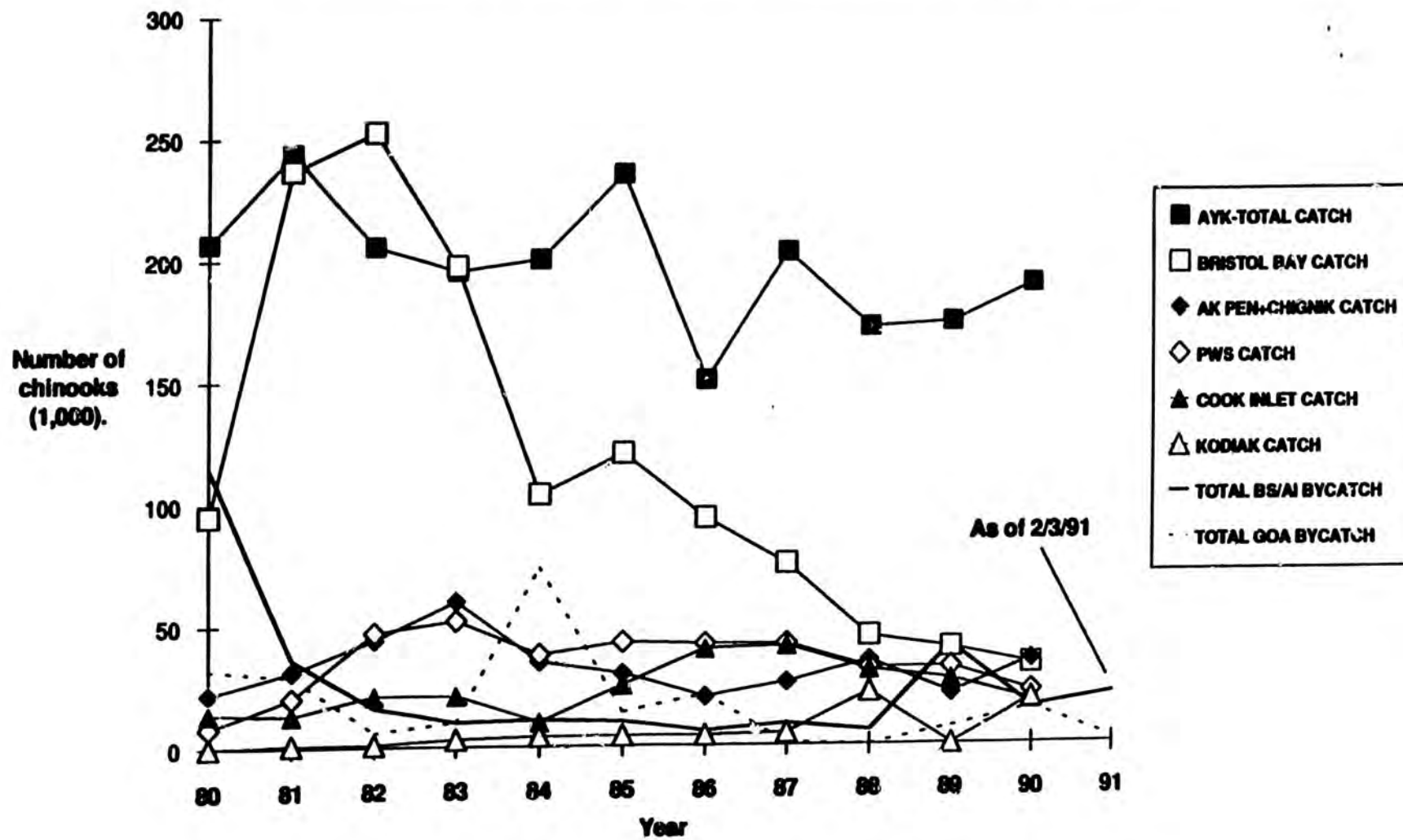


Figure 3. Bycatch of chinook salmon in foreign and joint venture groundfish fisheries in the Bering Sea/Aleutian Islands 1977 - 1990, and bycatch of chinook salmon in the domestic groundfish fisheries of the BS/AI, 1989 - 1991.

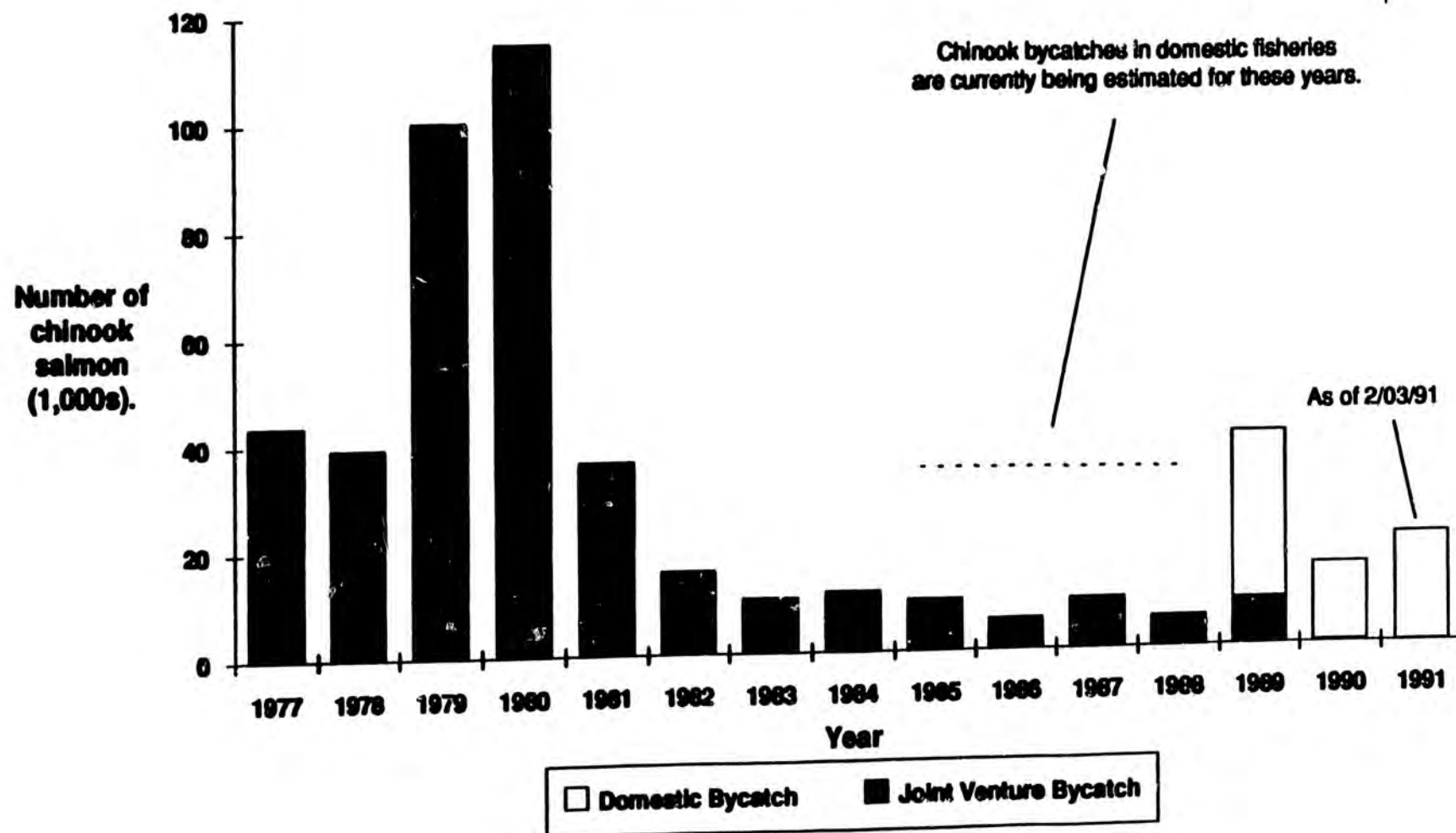
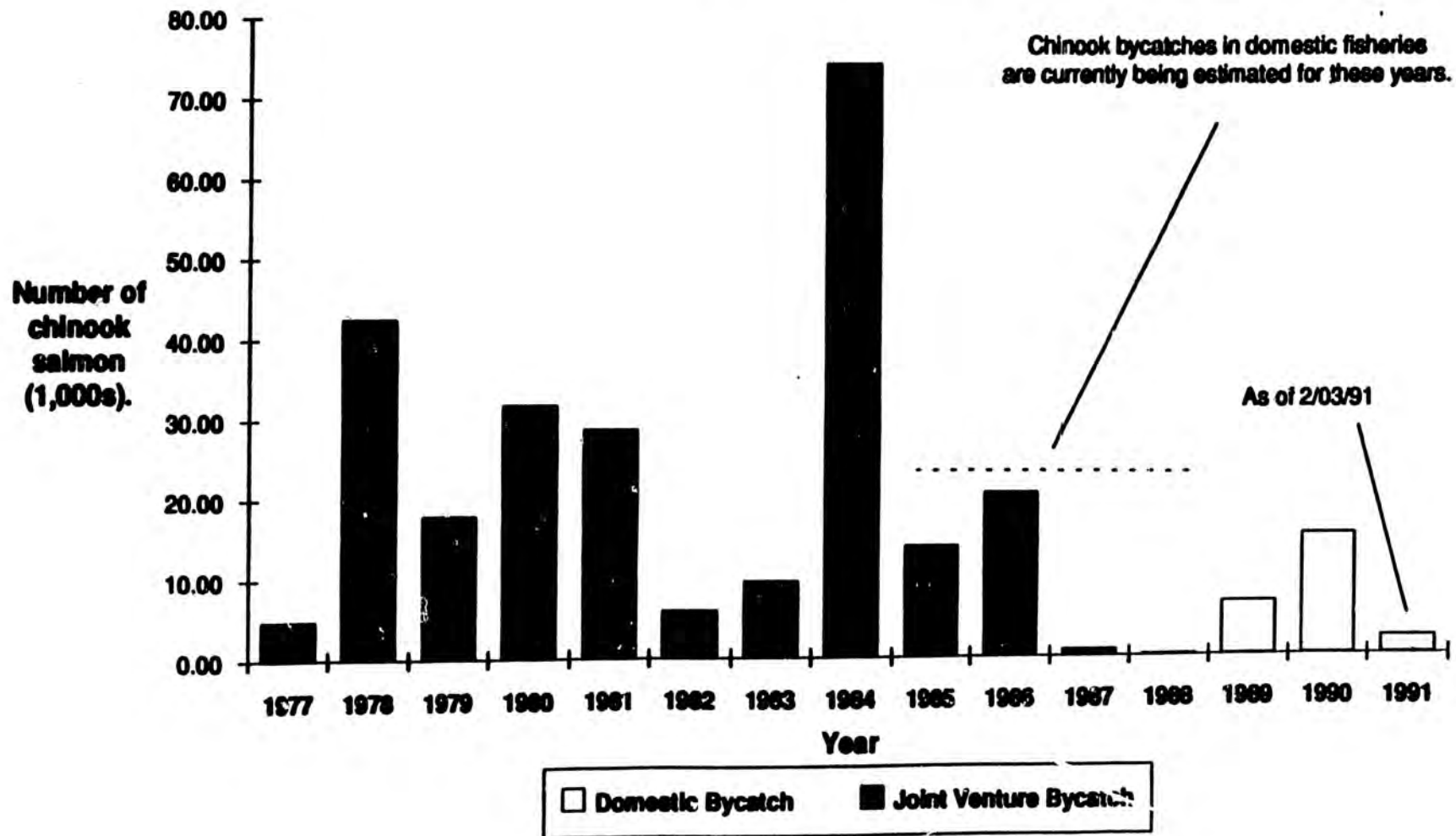


Figure 4. Bycatch of chinook salmon in foreign and joint venture groundfish fisheries in the Gulf of Alaska 1977 - 1988, and bycatch of chinook salmon in the domestic groundfish fisheries of the Gulf of Alaska, 1989 - 1991.



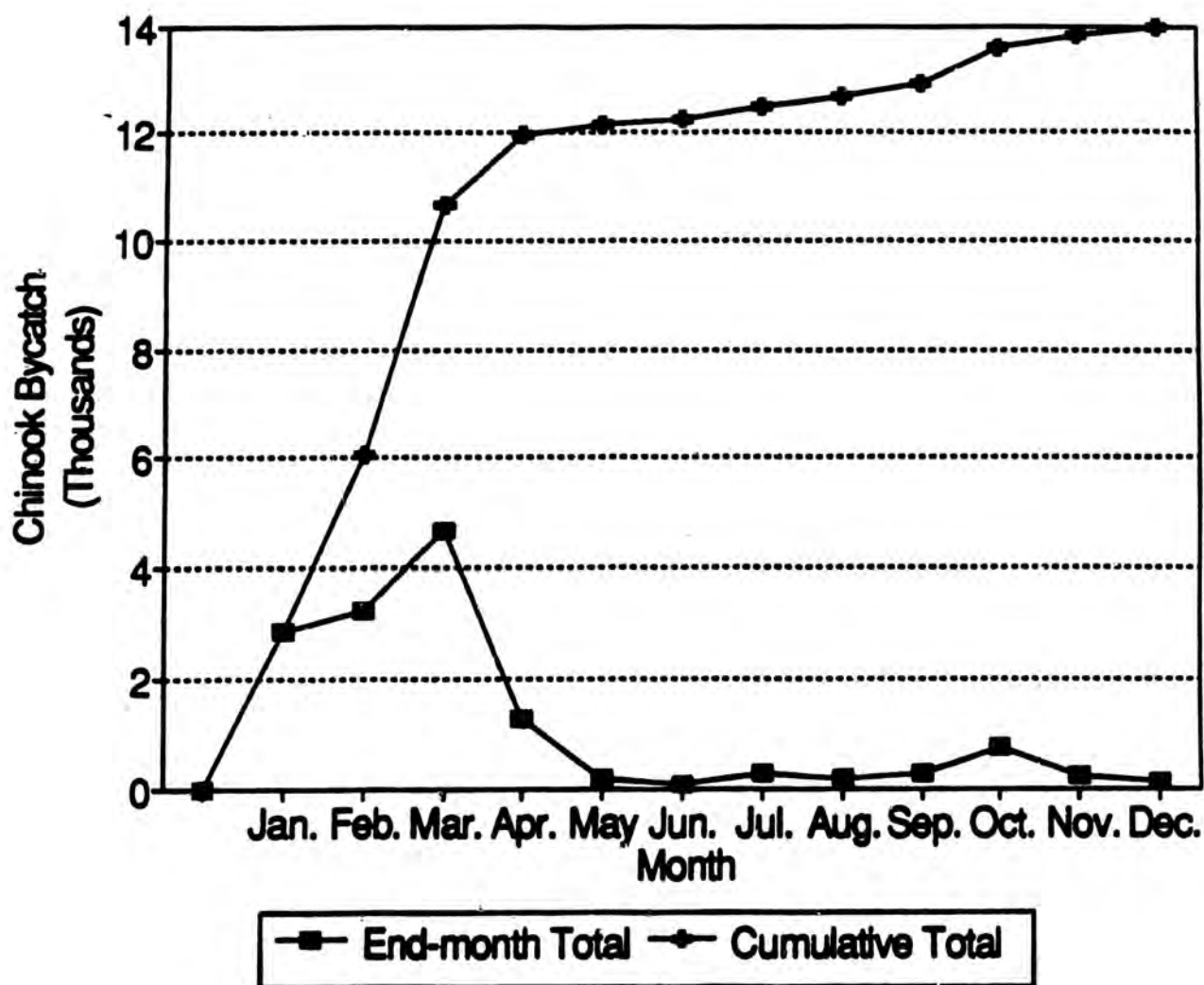


Figure 5. 1990 chinook salmon bycatch in the Bering Sea.