SB

37

Alaska State Legislature

POUCH V
JUNEAU, ALASKA 99811
(907) 465-4907

Senate
Committee on Resources

M E M O R A N D U M April 16, 1985

TO: Senate Resources Committee Members

FROM: Senate Resources Committee Staff

RE: SB 37
"An Act relating to management plans and regulations adopted by the Board of Fisheries."

Enclosed in this packet is the back up material for SB 37. A packet from Sen. Paul Fischer is included which consists of a cover memo, a sectional analysis, and a 1984 resolution by the Kenai Peninsula Borough supporting last year's version of this bill.

Also enclosed is a letter from the Kenai Peninsula Fishermen's Cooperative Association supporting the bill and a position paper and a fiscal note from the Department of Fish and Game.

The hearing will be teleconferenced to Soldotna, Homer, Anchorage and Kodiak.

Alaska State Legislatur
Senate

Official Business

Pouch V
State Capitol
Juneau, Alaska 99811

Senator Paul A. Fischer

Memo

April 16, 1985

To: Senator Arliss Sturgulewski, Chairman
Senate Resources Committee

From: Senator Paul Fischer

Subject: Senate Bill 37

Attached is a 1984 Kenai Peninsula Borough resolution supporting the Thirteenth Alaska Legislature's Senate and House versions of Senate Bill 36. Senate Bill 36 is identical to these versions.

Also, I have included an analysis of the bill.

SB 37

Senator Paul Fischer

The purpose of this legislation is to establish for the first time, a set of policy standards and guidelines for the Board of Fisheries.

SECTIONAL

SEC. 1: AS 16.05 (Fish and Game Code) is amended by adding a new section.

(A) Sec. 16.05.252 State three criterias the Board of Fisheries shall use in developing a management plan. They are: (1) The plan should be primarily designed to achieve the maximum sustainable yield of the fishery resources. (2) The plan should be based on the best available scientific information. (3) The costs of administrating the plan should be minimized. These criteria should be used unless it would be inconsistent with subsistence regulations and the maintenance of fish stock.

(B) Except for subsistence use, if the Board of Fisheries feels that their regulations or management plans need to allocate fishery resources among different user groups, the Board will use the following three criteria to establish restrictions, limitations, and priorities:
(1) the effect (including economic loss) on the affected user group that may occur as a result of the restrictions or limitations.
(2) The economic effect of the communities affected by the restriction or limitation.
(3) The availability and feasibility of providing alternative fishery resources to the user group that is subject to the restriction or limitation.

(C) If the fishery resources are allocated among different user groups the Board is required to attach written findings to the management plan supporting their decision that it must exclude or limit a group's use to preserve the maintenance of fish stocks on a sustained yield basis.

(D) The commissioner may participate in the development of a management plan and shall review each management plan and state in writing the department's position to the plan. The commissioner's statement will be included in the record of the board's actions in adopting the management plan.

(E) This plan does not apply to emergency regulations.

Introduced by: Kenai River Spec. Committee
Date: Mar. 6, 1984
Vote: Unanimous
Action: Adopted

KENAI PENINSULA BOROUGH

RESOLUTION 84-49

SUPPORTING SB 357 AND HB 526 PROVIDING FOR MANAGEMENT PLANS AND REGULATIONS FOR SUCH PLANS TO BE ADOPTED BY THE BOARD OF FISHERIES.

WHEREAS, HB 526 and SB 357 provide for adoption of management plans and regulations to implement management plans for the fisheries of the State of Alaska, and where such plans will include the allocation of fisheries resources among different user groups in order to conserve or develop fisheries resources; and

WHEREAS, such legislation would require findings-of-fact to support limitations or exclusions on a particular group's use of the fisheries; and

WHEREAS, such legislation would be beneficial to the fisheries within the Kenai Peninsula Borough;

NOW THEREFORE, BE IT RESOLVED BY THE ASSEMBLY OF THE KENAI PENINSULA BOROUGH:

Section 1. That the Assembly of the Borough expresses its support of, and urges passage of SB 357, and its companion HB 526 providing for management plans and regulations to be adopted by the Board of Fisheries governing the allocation of fisheries resources among different user groups in Alaska.

Section 2. That the Borough Clerk shall distribute copies of this resolution to Senators Paul Fischer and Don Gilman, and to Representatives Hugh Malone, Bette Cato, Milo H. Fritz, and Vern Hurlbert.

ADOPTED BY THE ASSEMBLY OF THE KENAI PENINSULA BOROUGH ON THIS 6 DAY OF March, 1984.

Sharon Jean, Vice President
Joseph C. Aydess, Assembly President

ATTEST:

Frances Bremner
Borough Clerk

MAR 4 1985

Kenai Peninsula Fishermen's Cooperative Assn.
Political and Legal Action Committee
Box 546, Soldotna, Alaska 99669

Phone: 262-2492

February 25, 1985

Senator Arliss Sturgulewski
Alaska State Legislature
Pouch V
Juneau, Alaska 99811

Dear Senator Sturgulewski:

Our committee would like to ask you to co-sponsor Senate Bill 37 in the Senate. At present, it has not been introduced into the House, but is sponsored by Senator Paul Fischer in the Senate. We are committed to seeking ways to improve our fishery for all user groups and we feel that this bill will allow the Alaska Board of Fisheries and the Department of Fish and Game to manage our resource under more defined guidelines.

Your support on this bill would be very much appreciated by all of the commercial fishermen in the state. We are vitally concerned with the future of our resource and we speak on behalf of thousands of commercial fishermen in the Cook Inlet area who are just as concerned. Thank you for your time and consideration.

Sincerely,

Cheryl Sutton(Mrs.)
Committee Coordinator
Political and Legal Action Committee

CS:cp

MAR 1 9 1985

STATE OF ALASKA

OFFICE OF THE GOVERNOR

BILL ANALYSIS

DEPARTMENT	DIVISION	BILL NUMBER	SPONSOR
Fish and Game	Boards	HB235/SB37	Marrou-House/P.Fischer-S

DEPARTMENT POSITION

Neutral

PREPARED BY	DATE	COMMISSIONER'S SIGNATURE	DATE
Elizabeth Stevens	3/13/85	Don W. Collinsworth	3-14-8

SUMMARY

OTHER AGENCIES AFFECTED BY BILL	CONSTITUENT GROUP(S) AFFECTED BY BILL
None known	Commercial and Sport Fishermen

ORGANIZATIONAL SUPPORT FOR BILL	ORGANIZATIONAL OPPOSITION TO BILL
Unknown	Unknown

FISCAL IMPACT: ☐ NONE ☒ FISCAL NOTE ATTACHED

BACKGROUND/LEGISLATIVE INTENT

Introduced in 1984 as HB526 by Malone

ANALYSIS OF BILL/PROGRAM EFFECTS

Currently the Board of Fisheries meets at least five times annually to hear extensive public testimony and make decisions on proposed changes to its regulations. During FY85, the board considered 816 proposals and 25 petitions to change its regulations. By far, the greatest majority of these changes were allocative in nature. In order to conduct its business during FY85, if the proposed legislation had been in effect, the Board would have undertaken over 500 economic impact analyses on user groups and communities, and made written findings of fact supporting its economic conculsions on every regulatory chang it adopted. This undertaking would not only require increased staff (est. 10 permanent, full-time positions), but would vastly extend the length of time th Board meets. During FY85, the Board met a total of 75 days.

Under the bill, the Board would determine the economic effect a regulation would have on users and communities. Such analyses would necessarily have to occur before the Board would decide on a regulation. It is estimated that a delay of 6 months to a year for a regulation to become effective would result

AMENDMENTS PROPOSED

(see attached sheet)

PLEASE ATTACH A SEPARATE SHEET FOR ADDITIONAL COMMENTS OR ANALYSIS.

Analysis of bill/program effects continued

from introducing economic procedural requirements to the existing administrative process.

In the absence of the funding necessary to implement this legislation, the Department and Board staff would be unable to provide the information necessary for the Board to allocate fishery resources among competing demands.

STATE OF ALASKA 1985 LEGISLATIVE SESSION

FISCAL NOTE

Revision Date:

REQUEST

Bill/Resolution No.: HB235/SB37

Title: An Act Relating to Mgt. Plans and Regs. Adopted by ..

Sponsor: Marrou-Hs/P.Fischer-Sn

Requestor:

Date of Request:

FISCAL DETAIL

Agency Affected: Fish and Game

Program Category Affected: Fish and Game Support

BRU, Program or Subprogram(s) Affected: Boards of Fisheries and Game

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 85	FY 86	FY 87	FY 88	FY 89	FY 90
OPERATING						
100 PERSONAL SERVICES		477.1	524.8	577.3	635.0	698.5
200 TRAVEL		54.7	60.2	66.2	72.8	80.1
300 CONTRACTUAL		19.0	20.9	23.0	25.3	27.8
400 SUPPLIES		5.0	5.5	6.1	6.7	7.3
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
TOTAL OPERATING		578.0	611.4	672.6	739.8	813.7
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND		578.0	611.4	672.6	739.8	813.7
FEDERAL FUNDS						
OTHER						
TOTAL		578.0	611.4	672.6	739.8	813.7

POSITIONS:

FULL-TIME		10	10	10	10	10
PART-TIME						
TEMPORARY						

ANALYSIS: Attach a separate page if necessary

This funding would allow two teams to conduct economic surveys and analyze fisheries economic data. One team would be based in Juneau, the other in Anchorage. Each team would consist of an Economist III, Economist I, Systems Analyst II, Systems Programmer I, and a Clerk Typist III. The teams would undertake economic research regarding the affect of proposed fishing regulations on sport and commercial fisher-

Prepared By: Beverly Reaume Phone: 465-4120

Division: Administration Date: 3/13/85

Approved by Commissioner: Ronald Dellsworth Date: 3-15-85

Agency: Fish and Game

Distribution (by Agency preparing fiscal note):

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

7/1/84

Fiscal Note continued

men, as well as on communities affected by the regulation. Information would be gathered from all available sources, processed and synthesized by computer, and provided to the Board of Fisheries. Thereafter, the board would be able to make allocative decisions on competing demands for finite fishery resources consistent with the proposed legislation.

1.	POSITION TITLE: Economist III (two positions)			RANGE/STEP: 21 A	BARG. UNIT: GGU	PAGE/LINE	COV.	APPROV.	DISAPP.
2.	TYPE OF POSITION: PFT	STAFF MONTHS: 12 (x2)	RP NUMBER	PCN NUMBER	BRU PRIORITY	LOCATION: JNO/ANCH	ELECTION DISTRICT	LEG.		
3.	CONTINUATION LEVEL		ADDITION						

4.	TYPE OF EXPENDITURE		AMOUNT
	1	2	3
	PERSONAL SERVICES per	month	
5.	Salary	3812.0	
6.	Benefits	650.3	
7.	Supplemental Benefits	233.7	
8.	Fixed Benefits	227.2	
9.	TOTAL PERSONAL SERVICES	01 59.1x2	118.2
10.	Travel	02 4.0x2	8.0
11.	Contractual	03 9.5x2	19.0
12.	Commodities	04 1.0x2	2.0
13.	Equipment	05 1.2x2	2.4
14.	Other		
15.	TOTAL COST		149.6

	RECEIPT CODE	FUNDING SOURCE	
16.		Federal Receipts 1002	
17.		C.F. Match 1003	
18.		General Funds 1004	149.6
19.		I-A Receipts 1005	
20.		Program Receipts 1028	
21.		Other	

FOR B&M USE ONLY
KEY NUMBER __ __ - __ __ - __ __ - __ __ - __ __

JUSTIFICATION

Staffing necessary to implement HB235/SB37
See Bill Analysis and Fiscal Note

REQUEST FOR NEW POSITION

AGENCY Fish and Game

PROGRAM Fish and Game Support

BRU Boards of Fisheries and Game

COMPONENT Administration and Support

Page 1 of 1

Revised Date

FY 86

01-1136 (7/82) - 15

1.	POSITION TITLE: Economist I (two positions)			RANGE/STEP: 18 A	BARG. UNIT: GGU	PAGE/LINE	COV.	APPROV. / DISAPP.
2.	TYPE OF POSITION: PFT	STAFF MONTHS: 12 (x2)	RP NUMBER	PCN NUMBER	BRU PRIORITY	LOCATION: JNO/ANCH	ELECTION DISTRICT	LEG.
3.	CONTINUATION LEVEL		ADDITION					

4.	TYPE OF EXPENDITURE		2	AMOUNT 3
	PERSONAL SERVICES per month			
5.	Salary		3313.0	
6.	Benefits		565.2	
7.	Supplemental Benefits		203.1	
8.	Fixed Benefits		227.2	
9.	TOTAL PERSONAL SERVICES	01	51.7x2	103.4
10.	Travel	02	4.0x2	8.0
11.	Contractual	03		
12.	Commodities	04	0.5x2	1.0
13.	Equipment	05	1.6x2	3.2
14.	Other			
15.	TOTAL COST			115.6

	RECEIPT CODE	FUNDING SOURCE		
16.		Federal Receipts	1002	
17.		G.F. Match	1003	
18.		General Funds	1004	115.6
19.		I-A Receipts	1005	
20.		Program Receipts	1028	
21.		Other		

FOR B&M USE ONLY
KEY NUMBER __ __ - __ __ - __ __ - __ __ - __ __

JUSTIFICATION

Staff[illegible]cessary to implement HB235/SB237
See [illegible]hed Bill Analysis and Fiscal Note

REQUEST FOR NEW POSITION

AGENCY: Fish and Game
PROGRAM: Fish and Game Support
BRU: Boards of Fisheries and Game
COMPONENT: Administration and Support

Page 1 of 1
Revised Date

FY 86

1.	POSITION TITLE: Clerk Typist III (two positions)			RANGE/STEP: 8A	BARG. UNIT: GGU	PAGE/LINE	COV.	APPROV. / DISAPP.
2.	TYPE OF POSITION: PFT	STAFF MONTHS: 12(x2)	RP NUMBER	PCN NUMBER	BRU PRIORITY	LOCATION: JNO/ANCH	ELECTION DISTRICT	LEG.
3.	CONTINUATION LEVEL	ADDITION						

4.	TYPE OF EXPENDITURE		AMOUNT
	1	2	3
	PERSONAL SERVICES per month		
5.	Salary	1631.0	
6.	Benefits	278.3	
7.	Supplemental Benefits	100.0	
8.	Fixed Benefits	227.2	
9.	TOTAL PERSONAL SERVICES 01	26.8x2	53.6
10.	Travel 02		
11.	Contractual 03		
12.	Commodities 04	0.5x2	1.0
13.	Equipment 05	0.5x2	1.0
14.	Other		
15.	TOTAL COST		55.6

	RECEIPT CODE	FUNDING SOURCE		
16.		Federal Receipts	1002	
17.		I.F. Match	1003	
18.		General Funds	1004	55.6
19.		I-A Receipts	1005	
20.		Program Receipts	1028	
21.		Other		

FOR B&M USE ONLY
KEY NUMBER __ __ - __ __ - __ __ - __ __ - __ __

JUSTIFICATION

Staffing necessary to implement HB235/SB37
See Bill Analysis and Fiscal Note

REQUEST FOR NEW POSITION

AGENCY Fish and Game

PROGRAM Fish and Game Support

BRU Boards of Fisheries and Game

COMPONENT Administration and Support

Page 1 of 1

Revised Date

FY 86

01-7336 (7/82) - 15

1.	POSITION TITLE: Systems Analyst II (two positions)			RANGE/STEP: 20A	BARG. UNIT: GGU	PAGE/LINE	COV.	APPROV.	DISAPP.
2.	TYPE OF POSITION: PFT	STAFF MONTHS: 12(x2)	RP NUMBER	PCN NUMBER	BRU PRIORITY	LOCATION: JNO/ANCH	ELECTION DISTRICT	LEG.		
3.	CONTINUATION LEVEL		ADDITION						

4.	TYPE OF EXPENDITURE		AMOUNT
	1	2	3
	PERSONAL SERVICES per month		
5.	Salary	3564.0	
6.	Benefits	608.0	
7.	Supplemental Benefits	218.5	
8.	Fixed Benefits	227.2	
9.	TOTAL PERSONAL SERVICES 01	55.4x2	110.8
10.	Travel 02		
11.	Contractual 03		
12.	Commodities 04	0.5x2	1.0
13.	Equipment 05	7.4x2	14.8
14.	Other		
15.	TOTAL COST		126.6

	RECEIPT CODE	FUNDING SOURCE		AMOUNT
16.		Federal Receipts	1002	
17.		G.F. Match	1003	
18.		General Funds	1004	126.6
19.		I-A Receipts	1005	
20.		Program Receipts	1028	
21.		Other		

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KEY NUMBER ___ - ___ - ___ - ___ - ___

JUSTIFICATION

Staffing necessary to implement HB235/SB37
See Bill Analysis and Fiscal Note

REQUEST FOR NEW POSITION

AGENCY Fish and Game

PROGRAM Fish and Game Support

BRU Boards of Fisheries and Game

COMPONENT Administration and Support

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Revised Date

FY 86

01-9136 87/821 - 15

	POSITION TITLE				RANGE/STEP	BARG. UNIT	PAGE/LINE	COV.	APPROV.	DISAPP.
1.	Systems Programmer I (two positions)				17A	GGU				
2.	TYPE OF POSITION: PFT	STAFF MONTHS: 12(x2)	RP NUMBER	PCN NUMBER	BRU PRIORITY	LOCATION: JNO/ANCH	ELECTION DISTRICT	LEG.		
3.	CONTINUATION LEVEL		ADDITION							

4.	TYPE OF EXPENDITURE		AMOUNT
	1	2	3
	PERSONAL SERVICES per	month	
5.	Salary	2895.0	
6.	Benefits	493.9	
7.	Supplemental Benefits	177.5	
8.	Fixed Benefits	227.2	
9.	TOTAL PERSONAL SERVICES 01	45.5x2	91.0
10.	Travel 02		
11.	Contractual 03		
12.	Commodities 04		
13.	Equipment 05	.9x2	1.8
14.	Other		
15.	TOTAL COST		92.8

	RECEIPT CODE	FUNDING SOURCE		
16.		Federal Receipts	1002	
17.		C.F. Match	1003	
18.		General Funds	1004	92.8
19.		I-A Receipts	1005	
20.		Program Receipts	1028	
21.		Other		

FOR B&M USE ONLY
KEY NUMBER ___ - ___ - ___ - ___ - ___

JUSTIFICATION

Staffing necessary to implement HB235/SB37
See Bill Analysis and Fiscal Note

REQUEST FOR NEW POSITION

AGENCY Fish and Game

PROGRAM Fish and Game Support

BRU Boards of Fisheries and Game

COMPONENT Administration and Support

Page 1 of 1

Revised Date

FY 86

01-3136 17/821-13

Kenai Peninsula Fishermen's Cooperative Assn.
Political and Legal Action Committee
Box 546, Soldotna, Alaska 99669

Phone: 262-2492

April 19, 1985

Senator Arliss Sturgulewski, Chairman
Senate Resources Committee
Alaska State Legislature
Pouch V
Juneau, Alaska 99811

Dear Senator Sturgulewski:

This letter is pursuant to your request for written testimony in regard to SB 37 which was discussed via teleconference hearing on April 17. Let me begin by saying that the issues surrounding the Alaska Board of Fisheries are complex. I will attempt to disclose some facts to you that hopefully will cause you to see just how important it is that criteria are developed for the Board to assist them in their allocation decision making.

The Alaska Board of Fisheries is an administrative agency entrusted with managing the second largest industry in the state. The fishing industry employs more people than any other private enterprise. Seven people essentially control a multi-billion dollar industry through the making of regulations. The Board of Fisheries allocates as much money in terms of fish resources as the State Legislature allocates. On the basis of these facts, the Board should be required to be completely above board in their dealings and ruled by integrity.

At this point I would like to relate some events which took place this spring. When the Supreme Court handed down its decision on Madison, the Governor's office, the Department of Law, and the Department of Fish and Game went into contortions. In an attempt to rally support for the Governor's subsistence bill, Beth Stewart, the Executive Director of the game and fish boards, came to the Kenai Peninsula to meet with members of United Cook Inlet Drift Association and the Alaska Sport Fishing Association to discuss what the Governor's office interpreted as being the ramifications of Madison. Jim Evenson, president of UCIDA, contacted Chuck Robinson, attorney for the Plantiffs in Madison,

and asked him to attend the meeting. Let me reiterate that our organization was never contacted by Beth Stewart even though we hold more permits as setnetters than the drifters do in Cook Inlet. I was made aware of the meeting and attended. Jim Evenson posed this question to Beth Stewart: "Beth, what is your real purpose in coming down here to meet with us today? Is is to lobby for the Governor's subsistence bill?" Beth replied, "Oh, no! I could never do that. We have some obligations to explain what we think we are going to be doing with the Madison ruling." I think it strange that that obligation did not extend to the eastside setnetters who were purposefully excluded. I submit to you that Beth Stewart is not in a neutral position and because of that she is not able to give impartial testimony in relation to SB 37. She is an employee of the Governor just as the Board of Fisheries' members are.

I would also like to point out that board member Bix Bonney has continual conflict of interest as he serves on a board which determines my, and thousands of others, income. He has blatantly made public remarks to the press and individuals that he wants to see Cook Inlet closed to commercial fishing. Can this man sit on a board and make eqitable decisions regarding the allocation of fish resources? Absolutely not! I also submit to you that there is not one board member who at some point does not allocate fish resources directly to himself. How these individuals and events continue to occur without any guidelines being laid down to attempt to discontinue these types of decisions is beyond my comprehension. Do you realize the powers that this board has? Do you think that they should be allowed to continue these practices?

There are currently litigations pending over just these types of decisions. The state has paid thousands of dollars to litigants who have refused, at long last, to sit back and let this board get away with these practices. I submit to you that there will be more litigations than they will be able to keep up with if they are allowed to continue without any sound criteria from which they can make allocation decisions.

Whether SB 37 is passed or not does not relieve the Legislature of their responsibility to see that this administrative agency acts more responsibly in their allocation decision making. Our organization speaks on behalf of thousands of commercial fishermen, sports fishermen and citizens of Alaska. We have made great effort to present facts to the Board of Fisheries and the Alaska

State Legislature in regard to the matters of allocation of fish resources. So far, we have had a fairly deaf ear. We are not going away--we are residents who are comprised of third and fourth generation fishermen and we intend to continue making our livings from fishing. I would urge you to consider facts instead of fiction and to not allow the current practices of the Alaska Board of Fisheries to continue unbridled.

Sincerely,

Cheryl Sutton(Mrs.)
Committee Coordinator
Political and Legal Action Committee

CS:cp

Enclosures

c.c. Senator Bettye M. Fahrenkamp
Senator Jack Coghill
Senator Richard I. Eliason
Senator Vic Fischer
Senator Rick Halford
Senator Fred F. Zharoff
Senator Paul Fischer

Kenai Chamber of Commerce
Box 497
Kenai, Alaska 99611
(907) 283-7989

RESOLUTION NO. 85-02

A RESOLUTION OF THE GREATER KENAI CHAMBER OF COMMERCE IN SUPPORT OF ESTABLISHING CRITERIA FOR MANAGEMENT PLANS AND REGULATIONS ADOPTED BY THE BOARD OF FISHERIES.

WHEREAS, the fishing industry is of great economic importance to the City of Kenai, the Kenai Peninsula and the State of Alaska, and

WHEREAS, it is of dire importance to enhance the fisheries on a continuing basis to insure the resource, and

WHEREAS, scientific information is now available from public and private sources to assist in determination of allocation to protect all users of the resource, and

WHEREAS, the Board of Fisheries would make determinations on the allocation of the resource available, both beneficial and detrimental, with such reliable data.

NOW, THEREFORE BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE GREATER KENAI CHAMBER OF COMMERCE THAT the Fourteenth Legislature is hereby urged to enact legislation to set forth criteria for management plans and regulations adopted by the Board of Fisheries (as outlined in concept by Senate Bill 37 and House Bill 235) for the protection of all users of the fisheries resource and achieve the maximum benefit for the people of Alaska.

AND, BE IT FURTHER RESOLVED that if this legislation is not enacted, that Governor William Sheffield and the Board of Fisheries establish these criteria as part of the Board policy to assure that consistent and scientific decisions are made on behalf of the resource and the people of Alaska.

PASSED BY THE GREATER KENAI CHAMBER OF COMMERCE this 5th DAY OF APRIL, 1985.

Fred F. Braun
FRED F. BRAUN, PRESIDENT

ATTEST:
Sue Carter
Sue Carter, Executive Director

April 9, 1985

TO THE ALASKA STATE LEGISLATURE - FOURTEENTH SESSION

The Ninilchik Chamber of Commerce urges the Alaska State Legislature to pass and enact Senate Bill 37 or its corresponding House Bill 235 in this year's session. We urge the passage and enactment of this bill for the following reasons:

1. The harvest of our fish resources is of primary importance to the economic stability of our community.

2. This bill would allow for the optimum harvest of these fish resources for all user groups, thus bringing in the highest possible revenues both locally and statewide.

3. This bill would require that our fish resources be managed by the best scientific information available from public and private sources.

4. This bill would minimize costs to the state and user groups in its enactment.

5. This bill would set forth criteria for the Board of Fisheries' allocation decision making as follows:

    (a) consideration of the effect on the affected user group, to include economic loss, if any.
    (b) consideration of the economic effect on the communities affected.
    (c) the availability of alternative fishery resources for the affected user group.

6. This bill would allow for harmony to be established between all user groups by setting forth guidelines upon which the Alaska Board of Fisheries must manage our very valuable resource.

7. This bill would eliminate pressures exerted upon the Alaska Board of Fisheries by special interest groups by providing equitable guidelines for the management of our fish resources.

We would sincerely urge the Alaska State Legislature to pass and enact Senate Bill 37 or its corresponding House Bill 235 for the welfare of our fish resources and harmony of its user groups.

Sincerely,

M.J. Rabbage

M.J. Rabbage, President
Ninilchik Chamber of Commerce

BILL SHEFFIELD
GOVERNOR

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

November 8, 1983

Mr. Duane Edelman
Kenai Peninsula Fishermen's
Cooperative Association
Route 2, Box 752
Soldotna, AK 99669

Dear Mr. Edelman:

Thank you for your September 28 letter concerning the nature and extent of a sport fishing economic survey in Southcentral Alaska. Presently, the State has no study underway of the economic impact of either commercial or sport fisheries in the Upper Cook Inlet. The original request for an economic survey occurred last fall because of an interest in examining the role of sport fishing in the regional and local economies. This study would be a valuable adjunct to understanding the nature of the sport fishing demand throughout Upper Cook Inlet.

Your suggestion of expanding the study objectives to encompass the commercial aspect of the resource is possible, although several important elements of the total value of the Cook Inlet commercial fisheries are readily available for consideration and use. For example, we know from the Department of Fish and Game catch and production statistics that the 1982 Upper Cook Inlet salmon harvest was worth approximately $34.9 million to fishermen and roughly $70 million to the processing industry at first wholesale value. Further, the State maintains statistical records on the revenues generated from the sale of commercial vessel licenses, entry permits and crew member licenses for those participating in Upper Cook Inlet fisheries. The area's 32 seafood processors can also contribute important data to determine the fisheries' value with employment and payroll statistics. All things considered, these separate sources of information can provide substantial insight into the economic value and worth of our commercial fisheries.

Please note

I have taken the liberty of forwarding your letter to the Commissioner of Fish and Game, Don Collinsworth. He will consider your proposal, along with many other needed proposals, including the sport fisheries study you mention,

before submitting his Department's fiscal year 1985 budget. I must caution you that any new project, prior to ultimate funding by the Legislature, must compete against a host of other needed projects. Let me assure you, though, that the study you seek will be given full consideration by my Administration.

Thank you for bringing the need for such a study to my attention.

Sincerely,

Bill Sheffield

Bill Sheffield
Governor

cc: Don W. Collinsworth, Commissioner
Department of Fish and Game

STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPARTMENT OF FISH AND GAME

DIVISION OF BOARDS

BOX 3-2000
JUNEAU, ALASKA 99802
PHONE: (907) 465-4110

TESTIMONY BEFORE THE SENATE RESOURCES COMMITTEE
ON SENATE BILL 37
by
John Garner
Alaska Board of Fisheries

April 17, 1985

I have been a member of the Alaska Board of Fisheries since January 1984. I would like to offer several comments on Senate Bill 37 and House Bill 235, which are offered as personal comments and not on behalf of the Alaska Board of Fisheries.

1) The fisheries regulatory process has been designed to place allocative judgments on the Board of Fisheries. The commissioner and Alaska Department of Fish and Game staff are insulated from such decisions to ensure that the public receives fair treatment from the department when biological and sustained yield decisions are made. I would therefore urge that the committee eliminate any requirement that the commissioner comment on allocative proposals.

2) Adoption of the legislation, as drafted, implies some priority be given to economic impact analysis. If the legislation is adopted, I would urge that the committee provide guidance as to how the board should weigh such information relative to other factors which, by law, must be considered when making allocative decisions. Absent such direction, it will be unclear how the data generated is to be used. As a board member, I can agree that development of allocative criteria is a worthy goal, one which we as a board have committed to work on. I can understand the frustration the public may feel at times with the regulatory process absent specific criteria for making such decisions. I would point out that the legislation does not, however, provide such criteria; rather, it requires the generation of data without any direction as to its use.

3) The Alaska Board of Fisheries, in my opinion, is committed to providing meaningful guidelines in this area, but has been hampered by the relatively recent appointment of its members, the exhaustive hearings required over the last year and one half, and now, quite possibly a complete overhaul of all fish regulations in light of the recent Madison decisions. If the committee deems it advisable to embark on this path, I would urge you to consider the comments made above.

STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPARTMENT OF FISH AND GAME

DIVISION OF BOARDS

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TESTIMONY BOFORE THE SENATE RESOURCES COMMITTEE
SENATE BILL 37
by
Beth Stewart
Director
Division of Boards

April 17, 1985

When the fiscal note was prepared in 1984, the department had not fully explored the ramifications of the proposed legislation. I apologize for this. The revised fiscal note is intended to realistically define the cost of its implementation. Since 1984, I have had the opportunity to discuss implementation costs with the staff of the North Pacific Fishery Management Council. This council, like all councils created by the Magnuson Act, operates under analyses criteria which are very similar to those included in this bill. I have copies of a report generated by the North Pacific Fishery Management Council that you may wish to review that will give you some idea of the type data required to meet the proposed statutory requirements. The staff required to assemble and analyze such data would also be required to create much of the data since such data does not currently exist. The Commercial Fisheries Entry Commission does maintain gross earnings files for commercial fisheries, but with rare exception, no net earnings information exists. The departments of Labor, Revenue, Commerce & Economic Development, and Community & Regional Affairs all maintain some data which could be used to help develop necessary information, however much of the data is either not computerized, computerized in incompatible formats (i.e., not fishery specific), or inaccessable because of confidentiality standards.

Careful attention to the federal system, demonstrates many of the problems associated with the requirements of this bill. The federal system was proposed by national and regional fishermen's organizations. While no one will dispute the desirability of such studies in the decision making process, these organizations have discovered that there is a significant cost to the public in dollars and regulatory delay. Their frustration can be seen in efforts to delete many of these standards from the Magnuson Act.

For example, the North Pacific Fishery Management Council was recently forced to reduce the number of groundfish proposals to be considered in the 1985 regulatory cycle from 60 to 12. These 12 proposals will be analyzed by an interagency team composed of 18 management coordinators, 4 economists, 2 habitat biologists, and legal counsel to guarantee, among other things, that adequate economic anaylsis is performed. Compare this to the 800 plus proposals the board reviewed and acted upon during the 1984 regulatory cycle, and you can see that even if the board could lump similar proposals, the task would be monumental.

Additionally, this elaborate process is not always successful in supporting historical allocational goals. The federal tanner crab management program does not include pot limits or exclusive registration area regulations which have been used since statehood by the Board of Fisheries to promote economic stability in Alaskan maritime communities. The economic analysis performed demonstrated that the economic data base inadequately supported maintenance of such regulations. Since many Alaskans felt these regulations were important, the state was forced to contract with the Institute of Social and Economic research (at a cost of $100,000) to compile the necessary data base and analysis. This was followed by another analysis which focused specifically on the utility of pot limits and exclusive registration. In total, these analyses took three plan coordinators, three economists, and ISER more than two years to complete, and NOAA general counsel still opines that the information available still does not support the implementation of such regulations.

These standards place an immense burden on private citizens who may currently come before the board to defend their proposals or oppose others by raising logical arguments and relying on the common understanding of a board of their peers. With such provisions in place in the federal system, fishermen have been forced to organize and develop their own sophisticated analysis of regulatory change.

As you may well imagine, many Alaskans, including the Board of Fisheries, have found the council system extremely frustrating because the proposal analyses process makes it impossible for the council to enact <u>any</u> changes in the regulations in less than two years.

It has been pointed out that this legislation only effects proposals which the board determines to be allocative and the majority of these proposals are submitted by the public. I cannot overemphasize the point that virtually every

proposed regulatory change submitted to the board involves the allocation of fish.

Although this legislation was developed to guide the allocation of Cook Inlet salmon between sport and commercial fishermen, it would also apply to all allocative choices including but certainly not limited to the following situations:

1. allocation of herring between seiners and gillnetters in Togiak, Kodiak, Cook Inlet, Prince William Sound, and Southeast;

2. allocation of crab between large and small vessels in the Bering Sea, Norton Sound, Bristol Bay, Adak, Dutch Harbor, the Alaska Peninsula, Chignik, Kodiak, Cook Inlet, Prince William Sound, Yakutat, and Southeast; and

3. allocation of salmon between set and drift netters, hand and power trollers, between gillnetters and seiners, between gillnetters, seiners and trollers, in all areas of the state.

Finally, the bill focuses on only one aspect of the board's proposal consideration process. Without codifying these criteria, the board has employed a much broader range of guidelines. Some of these were embodied in the board's proposed Tanner Crab Goals, which incidentally, were not passed because the board felt the industry, staff, and board needed more time to evaluate the impacts of these guidelines. (I have copies of these goals if you would like them.) The board and the department both actively support developing and improving the data available to decision makers. However, information costs money, and we cannot promise to supply such information without incurring substantial additional costs.

2/7/85

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TANNER CRAB FISHERIES MANAGEMENT GOALS

The management goals which follow have been developed in accordance with constitutional and statutory mandates. These goals should be considered as an integrated whole, not as separable elements. Management measures adopted by the Board are designed to balance the various components within these goals. There is one primary goal and secondary goals are of equal importance.

Primary Goal

Conserve and manage the Tanner crab resource on a sustained yield basis.

1) Maintenance of Tanner crab stocks on a sustained yield basis requires timely and accurate monitoring of all commercial fisheries harvests (including by-catches) as well as research data to determine biomass levels, natural mortality, recruitment trends, and fecundity levels. Where sufficient information is not available to determine stock status, a conservative harvest strategy commensurate with the degree of uncertainty is required.

2) Tanner crab fishing gear should minimize harvests of nontarget species such as king crab and halibut. Fishing gear should be designed to reduce retention of sublegal and female Tanner crab and shall incorporate a biodegradable escape mechanism to prevent it from continuing to fish if lost at sea. Nonselective fishing gear, such as trawls and tangle nets, are prohibited because they inflict high mortality rates on nonlegal crab.

3) Fishing seasons should be established with concern for critical life history factors. Open and closed seasons are used to protect Tanner crab during the mating and molting periods of their life cycle. Fishing seasons will generally be closed during critical periods to maximize the reproductive potential of the population and to protect crab from mortality caused by handling and stress when exoskeletons are soft.

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4) Where possible, the management regime should consider the effects of predators and disease upon the sustained yield of Tanner crab. Populations identified to be in jeopardy from the sea factors should receive additional protection to reduce fisheries exploitation.

5) Management must be responsive to habitat conservation concerns in order to maintain the Tanner crab resource on a sustained yield basis.

Secondary Goals

The management system should strive to be effective and efficient and should minimize costs of management and conservation measures.

1) Management measures should be designed to provide effective monitoring of the commercial fisheries. Accurate data on directed harvests, by-catches, species composition, sex, and size are required. Fleet composition, effort levels and catch per pot while desirable for all fisheries may be essential in certain situations such as where a large fleet is fishing a small harvestable surplus.

2) The Tanner crab resource will be managed as a unit throughout its range. Since both the state and federal governments have management responsibility over Tanner crab close coordination of conservation and management measures is required.

3) Management measures should, when not required for conservation purposes, minimize restrictions or requirements to allow the industry to harvest and process efficiently. They should be designed to complement production and marketing standards and requirements to produce a high quality product at a reasonable price. Management measures and regulations will be imposed only to attain specific conservation or social and economic objectives.

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4) Fishery management should seek to bring costs of management and enforcement to within reasonable limits relative to the value of the fishery. The management and enforcement systems which implement these management measures and regulations should strive to be effective, efficient, non-duplicative, timely and unbiased.

Promote economic stability, growth, and self sufficiency in maritime communities.

Consideration shall be given to how Tanner crab management measures will affect the economic conditions of maritime communities. A maritime community is a coastal community whose structure in part, depends on regional fishery resources and related industries. Management measures which enhance the self-sufficiency of those maritime communities will benefit the region and the nation.

Economic conditions should be enhanced by:

1. Stabilizing and expanding the flow of fishery related revenues into maritime communities.

2. Increasing opportunities for fisheries related activities.

3. Extending, within biological limits, the availability of Tanner crab resources to the industry over the longest possible season.

4. Full utilization of harvestable fishery resources in maritime communities.

Reasonably distribute the available Tanner crab harvest among all users to achieve the optimal public benefit.

This goal recognizes that fisheries resources are the common property of the citizens of Alaska and the United States. This goal strives to: 1) allow as many fishermen as possible to participate in the fishery without over capitalization; 2) insure that all fishermen who participate in the Tanner

crab fishery have an equitable opportunity to harvest the available resource; and 3) generate enough gross revenue to allow the average participant to make a reasonable income. In making allocation decisions, the board shall determine current harvesting patterns based on the best available data; determine and rate current benefits; and allocate harvest by ranking uses. As mandated by Alaska law, allocation of harvest privileges will be made in a manner which does not discriminate among residents of different states.

Minimize catch, mortality, and subsequent waste of non-target species, and reduce adverse impacts of the Tanner crab fishery on other fisheries.

The Tanner crab fishery catches several crab species of both sexes in a variety of sizes. Other fish species such as halibut and Pacific Cod are also taken in crab gear. Trawl fisheries for groundfish have incidental harvests of other valuable fish such as crab. This goal recognizes that incidental by-catches occur in all fisheries but it intends to encourage the development of gear and techniques that reduce the catch of non-target species. Management should strive to reduce or eliminate nonproductive or damaging by-catches and sources of conflict between fisheries. In addressing this goal, it should be recognized that a by-catch is in fact an allocation from the harvestable surplus of the by-catch species.

This goal will be addressed by:

1. Encouraging at sea monitoring of all fisheries in order to determine by-catch rates.

2. Taking regulatory action to reduce wasteful by-catch of Tanner crab in other fisheries and in crab fishing gear lost or improperly stored at sea.

3. Taking action to reduce wasteful by-catch of other fish species in the Tanner crab fishery.

4. Striving to reduce fishing gear conflicts.

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There are several factors the board may wish to consider in trying to achieve secondary goals including:

* economic & social consequences
* food production
* consumer interest
* present fleet & community dependence
* impacts on other fisheries
* excessive share accumulation
* net gains in efficiency
* conservation
* administrative cost
* industry efficiency
* fairness & equity

Implementation of Tanner Crab Goals

Management measures which can be expected to work toward the above goals are:

* Optimum Yield specification
* Fishing seasons and fishing districts
* Catch restrictions based on sex and size
* Gear placement limitations
* Gear storage limitations
* Vessel tank inspections
* Exclusive registration areas
* Reports required of fishermen, tenders, and processors
* Limited entry
* Gear limits
* Defining legal gear
* Closed areas
* Registration requirements
* Landing and inspection requirements
* Tendering

* Permits for catcher processors/floating processors
* Documentation of deadloss

1985 OCEAN SALMON FISHERIES

PROPOSED REGULATORY OPTIONS AND REGULATION IMPACT ANALYSES

PREPARED BY

THE SALMON PLAN DEVELOPMENT TEAM
AND PFMC STAFF ECONOMIST

PACIFIC FISHERY MANAGEMENT COUNCIL
526 S.W. MILL STREET
PORTLAND, OREGON 97201

MARCH 1985


CANADA
Strait of Juan de Fuca
Cape Alava
Carroll Island
Quoets River
Pt. Grenville
Pt. Brown
Grays Harbor
Westport
Leadbetter Point
Willapa Bay
Klipsan Beach
North Head
Columbia River (CZ1)
South Jetty
Columbia River Lightship Buoy (SPZ1)
Astoria
Seaside
Tillamook Head
Cape Falcon
Tillamook
Cape Kiwanda
Newport
Cape Perpetua
Heceta Head
WASHINGTON
OREGON
Coos Bay
Cape Blanco
Port Orford
Rogue River
Gold Beach
Cape Sebastian
Brookings
California/Oregon Border
Crescent City
Klamath River (CZ2)
Trinidad
Eureka
Pt. Delgada
Cape Mendocino
Fort Bragg
Pt. Arena
Tomales Pt.
San Francisco
Half Moon Bay
Santa Cruz
CALIFORNIA
Morro Bay
Santa Barbara
Santa Barbara Channel
Anacapa Island
Los Angeles
Long Beach
San Clemente
La Jolla
Santa Catalina
San Diego
MEXICO

PACIFIC FISHERY MANAGEMENT COUNCIL

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CHAIRMAN
James A. Crutchfield

EXECUTIVE DIRECTOR
Joseph C. Greenley

MEMORANDUM

DATE: March 25, 1985

TO: Interested Persons

FROM: Joseph C. Greenley, Executive Director

SUBJECT: Preseason Salmon Management Options Report

Enclosed you will find the report of the Council's Salmon Plan Development Team entitled "1985 Ocean Salmon Fisheries Proposed Regulatory Options and Regulation Impact Analyses." This is the third report in a series of four which the Council prepares during its preseason salmon management process to aid in determining the final 1985 ocean fishery regulations for recommendation to the Secretary of Commerce.

The report summarizes the Council's proposed 1985 fishery management options developed for public review and analyzes the potential impacts which these options would have on the salmon stocks as well as socio-economic impacts on the fisheries and local communities.

The Council will review this report at its April 9-11 meeting in Portland, OR and receive comments from its advisors and the public. The Council's final 1985 management recommendations will be developed at that time.

Your comments and recommendations, written or oral, are welcomed during this process. Please address written comments to Joseph C. Greenley at the above address.

JCC:mps
Enclosure

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INTRODUCTION

This is the third in a series of four reports prepared by the Pacific Fishery Management Council's (PFMC) Salmon Plan Development Team (team) and staff economist. These reports are developed to supplement the Council's overall salmon fishery management plan. They document and help guide salmon fishery management in the fishery conservation zone (FCZ) from 3 to 200 miles off the coasts of Washington, Oregon, and California. The fourth report in this series will be developed after the April Council meeting. It will analyze the impacts of the Council's final ocean salmon fishery management options for 1985.

This report provides the 1985 proposed regulatory options and regulation impact analysis for presentation at the public hearings. A number of options were developed by the Salmon Advisory Subpanel and then combined into three options jointly by the team and the subpanel.

DESCRIPTION OF OPTIONS

For 1985, the Council has adopted three troll and three recreational ocean salmon fishery management regulatory options for public review. Details of the options are described in Tables 1-6. Catch quota levels under which the various options might be managed are presented in Table 7.

The proposed management options are listed from most liberal (Option 1) to most restrictive (Option 3). For the purpose of impact analysis, the troll and recreational options have been paired according to degree of regulatory constraint. These three paired options, together with alternative quota levels proposed for the various fisheries, encompass the range of options under consideration.

Within the range of options adopted by the Council are some important considerations which are not included within the individual option tables. The following items should be considered as general footnotes to all options.

1. Within the planned U.S. vs. Washington and U.S. vs. Oregon negotiations, all harvest options will be considered from zero catch for depressed stocks of chinook and coho, to options offering more flexible management schemes which take into account regulations formulated by the U.S.-Canada Salmon Interception Treaty and the needs and requirements of all parties benefiting from the resource.

2. The number of days of fishing per week in the recreational fishery can be construed as ranging from zero to seven within the intent of these proposed regulations.

3. It is anticipated that in addition to the regulations shown in these options, Oregon Department of Fish and Wildlife (ODFW) may permit additional late season chinook-only fisheries in state waters off the mouth of the Elk River and off Tillamook Bay. Additional late season chinook fishing opportunity will be evaluated in other territorial ocean areas at stream mouths between Cape Blanco and Cape Falcon.

Table 1. Troll Option 1 of the proposed 1985 ocean salmon fishing regulations (please refer to the text under "Description of Options" for a complete account).

Area/Season	Salmon Species	Quota		Minimum Size Limit		Special Restrictions
		Chinook	Coho	Chinook	Coho	
U.S.-Mexico Border to Cape Vizcaino						
May 1 thru May 31	All except coho	None	-	26"	-	Barbless hooks; not more than 6 lines per boat
June 1 thru Sept. 30	All	None	None	26"	22"	
Cape Vizcaino to Cape Blanco						
May 16 thru May 31	All except coho	None	None	26"	-	Barbless hooks; not more than 6 lines per boat (CA only).
June 1 thru June 6	All	None	a/	26"	22"	Closed 12-mile square off Klamath River mouth (Aug. 1 thru Aug. 22)
July 16 thru Aug. 22	All	None	a/	26"	22"	
Cape Blanco to Cape Falcon						
May 1 thru June 15	All except coho	None	-	26"	-	Barbless hooks
June 16 thru earlier of Aug. 31 or coho quota	All, except no more than 1 coho may be retained for each chinook	None	a/	26"	16"	Barbless hooks
Earlier of coho quota or Sept. 1 thru Oct. 31	All except coho	None	-	26"	-	Barbless hooks
Cape Falcon to U.S.-Canada Border[b/]						
May 1 thru earlier of May 31 or chinook quota	All except coho	a/	-	28"	-	Barbless hooks, except whole bait and plugs; Conservation Zone 1 closed (Columbia River mouth)
July 1 thru earliest of July 15 or quotas	All, except no more than ___ coho may be retained for each chinook	a/	a/	28"	16"	Inside 10 miles; barbless hooks, except whole bait and plugs; Conservation Zone 1 closed (Columbia River mouth)
July 16 thru earliest of Aug. 7 or quotas	All	a/	a/	28"	16"	Barbless hooks, except whole bait and plugs; Conservation Zone 1 closed (Columbia River mouth)
Carroll Island to U.S. Canada Border						
Aug. 1 thru earliest of Aug. 31 or reserved quotas	All[d/]	a/c/	a/c/	28"	16"	Gear: flashers with bare, blued hooks only (beginning earliest of Aug. 8 or July quotas).

a/ See Table 7 for the range of quotas considered. South of Cape Falcon the alternatives considered for coho are 55,000 and 145,000. North of Cape Falcon the alternatives for chinook range from 0 to 74,200 and 0 to 165,300 for coho.

b/ SPDT may recommend area restrictions to minimize impact on critical stocks.

c/ Number estimated to prolong the fishery as was the intent in 1983.

d/ Expected catch of 350,000 pinks, 44,500 coho, and 5,700 chinook. Quotas for earlier periods will be adjusted accordingly for this expected catch. The fishery could proceed under one of the following type of options: (1) all salmon until 35,000 coho or 5,000 chinook are landed and then an all except coho and chinook fishery, or (2) all salmon, except only 1 coho may be retained for each 8 pinks landed, or (3) all salmon except chinook and coho for the entire season (August 1 thru August 31).

Table 2. Troll Option 2 of the proposed 1985 ocean salmon fishing regulations (please refer to the text under "Description of Options" for a complete account).

Area/Season	Salmon Species	Quota		Minimum Size Limit		Special Restrictions
		Chinook	Coho	Chinook	Coho	
U.S.-Mexico Border to Point Delgada						
May 1 thru June 30	All except coho	None	None	28"	-	Barbless hooks; not more than
July 1 thru Sept. 30	All	None	None	26"	22"	6 lines per boat
Point Delgada to Cape Blanco						Barbless hooks; not more than
July 1 thru July 31	All	None	a/	26"	22"	6 lines per boat (CA only)
Cape Blanco to Cape Falcon						
May 1 thru June 15	All except coho	None	-	26"	-	Barbless hooks
July 1 to earlier of coho quota or Aug. 31	All	None	a/	26"	16"	Barbless hooks
Earlier of coho quota or Sept. 1 thru Oct. 15	All except coho	None	-	26"	-	Barbless hooks
Cape Falcon to U.S.-Canada Border[b/c/]						
May 1 thru earlier of May 31 or chinook quota	All except coho	a/	-	28"	-	Barbless hooks, except whole bait and plugs; Conservation Zone 1 closed (Columbia River mouth)
July 1 thru earliest of (1) coho, or (2) chinook quota, or (3) July 31	All, except that ___[d/] coho may be retained for each chinook	a/	a/	28"	16"	Barbless hooks, except whole bait and plugs; Conservation Zone 1 closed (Columbia River mouth)
Carroll Island to U.S.-Canada Border						
Aug. 1 thru earliest of Aug. 31 or reserved quotas	All[e/]	a/e/	a/e/	28"	16"	Flashers with bare, blued hooks only

a/ See Table 7 for the range of quotas considered. South of Cape Falcon, the alternatives considered for coho are 55,000 and 145,000. North of Cape Falcon, the alternatives for chinook range from 0 to 74,200 and 0 to 165,300 for coho.
b/ Appropriate number of coho to be reserved for August pink fishery.
c/ SPDT may recommend area restrictions to minimize impact on critically depressed stocks.
d/ Number estimated to prolong the fishery as was the intent in 1983.
e/ Expected catch of 350,000 pinks, 44,500 coho, and 5,700 chinook. Quotas for earlier periods will be adjusted accordingly for this expected catch.

Table 3. Troll Option 3 of the proposed 1985 ocean salmon fishing regulations (please refer to the text under "Description of Options" for a complete account).

Area/Season	Salmon Species	Quota		Minimum Size Limit		Special Restrictions
		Chinook	Coho	Chinook	Coho	
U.S.-Mexico Border to Point Delgada						
May 1 thru June 15	All except coho	None	None	26"	-	Barbless hooks; not more than
July 1 thru Sept. 30	All	None	None	26"	22"	6 lines per boat
Point Delgada to Cape Blanco						
No troll season in this area						
Cape Blanco to Cape Falcon						
May 1 thru June 15	All except coho	None	-	26"	-	Barbless hooks
July 1 thru earlier of Aug. 31 or coho quota	All, except that no more than 1 coho may be retained for each chinook	None	a/	26"	16"	Barbless hooks
Earlier of Sept. 1 or coho quota thru Sept. 30	All except coho	None	-	26"	-	Barbless hooks
Cape Falcon to U.S.-Canada Border						
May 1 thru earlier of May 31 or chinook quota	All except coho	a/	-	28"	-	Barbless hooks, except whole bait and plugs; Conservation Zone 1 closed (Columbia River mouth)
Leadbetter Point to Cape Alava[b/]						
July 16 thru Aug. 7 quota (when either coho or chinook quota is reached, fishing will continue for all but that species)	All	a/	a/	28"	16"	Barbless hooks, except whole bait and plugs
Carroll Island to U.S.-Canada border						
Aug. 1 thru earliest of Aug. 31 or reserved quotas	All	a/	a/	28"	16"	Flashers with bare, blued hooks only

a/ See Table 7 for the range of quotas considered. South of Cape Falcon the alternatives considered for coho are 55,000 and 145,000. North of Cape Falcon the alternatives for chinook range from 0 to 74,200 and 0 to 165,300 for coho.

b/ To ensure the pink fishery in August, 44,500 coho will be saved from this season.

Table 4. Recreational Option 1 of the proposed 1985 ocean salmon fishing regulations (please refer to the text under "Description of Options" for a complete account).

Area/Season	Salmon Species	Quota[a/] Chinook	Quota[a/] Coho	Minimum Size Limit Chinook	Minimum Size Limit Coho	Special Restrictions (Bag Limit for Recreational Fishery)
U.S.-Mexico Border to OR-CA Border Closest Saturday to Feb. 15 thru Nov. 17	All	None	None	20"	20"	2 fish; barbless hooks; 12-mile square closed at mouth of Klamath River (Aug. 1 thru Aug. 31)
OR-CA Border to Cape Blanco July 1 thru earlier of Sept. 2 or coho quota	All	None	b/	20"	20"	2 fish; barbless hooks
Earlier of Sept. 3 or coho quota through Oct. 31	All except coho	None	-	20"	-	2 fish; barbless hooks
Cape Blanco to Cape Falcon July 1 through earlier of Sept. 2 or coho quota	All	None	b/	20"	20"	2 fish; barbless hooks
Cape Falcon to Leadbetter Point[c/] June 28 thru earliest of Sept. 2 or quotas, Friday thru Sunday only (31 days)	All	b/	b/	24"	16"	2 fish; barbless hooks; open inside special fihery zone south of Columbia River (same as 1984)
Water Tower (46°20'N.) to Queets River May 24 thru earlier of June 23 or chinook quota, Friday thru Sunday only (15 days)	All except coho	b/	-	24"	-	2 fish; barbless hooks; open inside 6 miles
Leadbetter Point to Queets River June 28 thru earliest of Sept. 2 or quotas, Friday thru Sunday only (31 days)	All	b/	b/	24"	16"	2 fish; barbless hooks
Queets River to Cape Flattery May 1 thru earlier of June 30 or chinook quota	All except coho	b/	-	24"	-	2 fish; barbless hooks; open inside 6 miles
July 1 thru earliest of Sept. 2 or quotas[d/]	All	b/	b/	24"	16"	2-fish bag except for 3 fish allowed from July 29 thru Sept. 2 (2 pinks and 1 chinook or coho); barbless hooks

a/ South of Cape Falcon, the alternative is 170,000 for coho. North of Cape Falcon the alternatives range from 0 to 45,800 for chinook and 0 to 334,700 for coho. North of Cape Falcon quota allocation based on 1977-1982 split of recreational catch.

b/ See Table 7 for the range of quotas considered.

c/ Buoy 10 fishery may be considered to equitably divide recreational fishing opportunities between the coastal communities north of Cape Falcon. Buoy 10 fishery shall be opened concurrent with the closure of the ocean fishery.

d/ In the area north of the Queets River, if it becomes apparent that the chinook quota will be reached prior to the coho quota, the area outside the Bonilla-Tatoosh line shall be closed.

Table 5. Recreational Option 2 of the proposed 1985 ocean salmon fishing regulations (please refer to the text under "Description of Options" for a complete account).

Area/Season	Salmon Species	Quota[a/] Chinook	Quota[a/] Coho	Minimum Size Limit Chinook	Minimum Size Limit Coho	Special Restrictions (Bag Limit for Recreational Fishery)
U.S.-Mexico Border to Point Delgada						
Closest Saturday to Feb. 15 thru Nov. 17	All	None	None	20"	20"	2 fish; barbless hooks
Point Delgada to OR-CA Border						
Closest Saturday to Feb. 15 thru Nov. 17, except closed Mondays and Tuesdays from July 15 thru Sept. 15	All	None	None	20"	20"	2 fish; barbless hooks; 12-mile square closed at mouth of Klamath River (Aug. 1 thru Aug. 31)
OR-CA Border to Cape Blanco						
May 25 thru earlier of Sept. 2 or coho quota, Sunday thru Thursday only	All	None	b/	None	None	First 2 fish per day, no more than 6 in possession in 7 days; (barbed hooks allowed)
Earlier of Sept. 3 or coho quota thru Oct. 31	All except coho	None	-	None	None	First 2 fish
Cape Blanco to Cape Falcon						
June 22 thru earlier of Sept. 2 or coho quota, Sunday thru Thursday only	All	None	b/	None	None	First 2 fish per day, no more than 6 in possession in 7 days; (barbed hooks allowed)
Cape Falcon to Leadbetter Point[c/]						
June 30 thru earliest of Sept. 5 or quotas, Sunday thru Thursday only (50 days)	All	b/	b/	26"	16"	2-fish bag; barbless hooks; open inside special fishery zone south of Columbia River (same as 1984)
Water Tower (46°20'N.) to Queets River						
May 26 thru earliest of June 27 or chinook quota, Sunday thru Thursday only (25 days)	All except coho	b/	-	26"	-	2-fish bag; barbless hooks; open inside 6 miles
Leadbetter Point to Queets River						
June 30 thru earliest of Sept. 5 or quotas, Sunday thru Thursday only (50 days)	All	b/	b/	26"	16"	2-fish bag; barbless hooks
Queets River to Cape Flattery						
May 1 thru earlier of June 30 or chinook quota	All except coho	b/	-	26"	-	2 fish; barbless hooks; open inside 6 miles
July 1 thru earliest of Sept. 2 or quotas[d/]	All	b/	b/	26"	16"	2-fish bag except for 3 fish allowed from July 29 thru Sept. 2 (2 pinks and 1 chinook or coho); barbless hooks

a/ South of Cape Falcon, the alternative is 170,000 for coho. North of Cape Falcon the alternatives range from 0 to 45,800 for chinook and 0 to 334,700 for coho. North of Cape Falcon quota allocation based on 1977-1982 split of recreational catch.

b/ See Table 7 for the range of quotas considered.

c/ Buoy 10 fishery may be considered to equitably divide recreational fishing opportunities between the coastal communities north of Cape Falcon. Buoy 10 fishery shall be opened concurrent with the closure of the ocean fishery.

d/ In the area north of the Queets River, if it becomes apparent that the chinook quota will be reached prior to the coho quota, the area outside the Bonilla-Tatoosh line shall be closed

Table 6. Recreational Option 3 of the proposed 1985 ocean salmon fishing regulations (please refer to the text under "Description of Options" for a complete account).

Area/Season	Salmon Species	Quota[a/] Chinook	Quota[a/] Coho	Minimum Size Limit Chinook	Minimum Size Limit Coho	Special Restrictions (Bag Limit for Recreational Fishery)
U.S.-Mexico Border to Point Delgada Saturday nearest Feb. 15 thru Nov. 17	All	None	None	20"	20"	2 fish; barbless hooks
North of Point Delgada No season						
OR-CA Border to Cape Blanco No Season						
Cape Blanco to Cape Falcon June 22 thru earlier of Sept. 2 or coho quota, Sunday thru Thursday only	All	None	b/	None	None	First 2 fish per day, no more than 6 in possession in 7 days (barbed hooks allowed)
Cape Falcon to Leadbetter Point[c/] June 30 thru earliest of Sept. 5 or quotas, Sunday thru Thursday only (50 days)	All	b/	b/	26"	16"	2-fish bag; barbless hooks; open inside special fishery zone south of Columbia River (same as 1984)
Water Tower (46°20'N) to Queets River May 26 thru earlier of June 27 or chinook quota, Sunday thru Thursday only (25 days)	All except coho	b/	-	26"	-	2-fish bag; barbless hooks; open inside 6 miles
Leadbetter Point to Queets River June 30 thru earliest of Sept. 5 or quotas, Sunday thru Thursday only (50 days)	All	b/	b/	26"	16"	2-fish bag; barbless hooks
Queets River to Cape Flattery May 1 thru earlier of June 30 or chinook quota	All except coho	b/	-	26"	-	2 fish; barbless hooks; open inside 6 miles
July 1 thru earliest of Sept. 2 or quotas[d/]	All	b/	b/	26"	16"	2 fish bag except for 3 fish allowed from July 29 thru Sept. 2 (2 pinks and 1 chinook or coho); barbless hooks

a/ South of Cape Falcon, the alternative was 170,000 for coho. North of Cape Falcon the alternatives range from 0 to 45,800 for chinook and 0 to 334,700 for coho. North of Cape Falcon quota allocation based on 1977-1982 split of recreational catch.

b/ See Table 7 for the range of quotas considered.

c/ Buoy 10 fishery may be considered to equitably divide recreational fishing opportunities between the coastal communities north of Cape Falcon. Buoy 10 fishery shall be opened concurrent with the closure of the ocean fishery.

d/ In the area north of the Queets River, if it becomes apparent that the chinook quota will be reached prior to the coho quota, the area outside the Bonilla-Tatoosh line shall be closed.

Table 7. Council proposed alternative chinook and coho quota levels for non-treaty ocean fisheries in 1985 (thousands of fish).

Level Quota	Chinook			Coho		
	Troll	Sport	Total	Troll	Sport	Total
South of Cape Falcon						
A	None	None	None	55.0	170.0	225.0
B	None	None	None	145.0	170.0	315.0
North of Cape Falcon						
A	0.0	0.0	0.0	0.0	0.0	0.0
B	16.7	10.3	27.0	24.3	50.2	74.5
C	46.4	28.6	75.0	125.6	254.4	380.0
D	74.2	45.8	120.0	165.3	334.7	500.0

ANALYSIS PROCEDURES AND ESTIMATED STOCK IMPACTS

Procedures

Procedures used to analyze regulatory options are generally described in the Council's framework amendment and the FMP supplement "1985 Ocean Salmon Fisheries Stock Status Projections, Management Goals, and Regulation Impact Analysis," Sections II and III (March 1985). The procedures used to evaluate the impact on Columbia River chinook of fisheries in the ocean north of Cape Falcon are described in PFMC's Supplement 3 (March 1984). Ocean fishery impacts on Washington coastal and Puget Sound coho stocks are determined through the use of preseason abundance estimates and the Washington Department of Fisheries-National Bureau of Standards (WDF-NBS) catch regulation analysis model.

Chinook Salmon Assessment

In the second report for the 1985 season ("1985 Ocean Salmon Fisheries Stock Status Projections, Management Goals, and Regulation Impact Analysis"), the team provided some preliminary, and quite incomplete, data for Columbia River chinook stocks in Table I-1, page I-2. Since that time, additional revised data have become available and a replacement for Table I-1 is shown in Table 8.

A summary of impacts of the paired troll and recreational regulatory options, including 1984 observations, is presented in Table 9.

Sacramento River

The escapement goal for the Sacramento River is a range of 122,000 to 180,000 adult fall-run spawners. Any of the options presented for chinook fisheries south of Point Delgada (Cape Vizcaino in Option 1) will meet the Sacramento River goal. The escapement estimates range from 166,500 to 178,200.

Klamath River

The 1985 to 1986 escapement goal for the Klamath River is an average inriver run size of 87,200 adult fall-run chinook. There is no established single-number goal for any year during the rebuilding schedule, but rather a series of averages by four-year periods (from 1983 through 1998). However, prospects for meeting the goal for each rebuilding period can be assessed based on past escapement levels.

The projected inriver run size for Klamath River chinook under paired Options 1, 2, and 3 range from 42,200 to 58,600. Even if the most restrictive option (3) is adopted for 1985 and the projected escapement met, the 1986 goal will jump to 115,800. To meet this goal, the inriver run size would have to exceed by 27 percent the record run size since 1978 of 91,300 adults. Because of the very low 1981 and 1982 spawning escapements (38,300 and 40,500, respectively), the probability of reaching this goal is extremely remote, even with no ocean fishing in the entire PFMC management area in 1986.

In 1984, the Council approved moving the southern management boundary for Klamath River chinook northward 21 miles from Cape Vizcaino to Point Delgada

Table 8. Preliminary preseason ocean escapement forecasts for chinook stocks in 1985 compared to 1984 assuming normal ocean harvest patterns (in thousands of fish). For California stocks, estimated impacts with 1984 ocean fishing regulations and 1985 stock abundance are included. (Updated on March 11, 1985).

Stock	Preseason Forecasts 1984	Preseason Forecasts 1985	Estimated Ocean Escapements: Preliminary 1984 Observed	1985 Expected: Actual 1984 Catches	1985 Expected: Council-adopted 1984 Regulations	Spawning Escapement Goal
Central Valley Production Index (CVI)	469.4[a/]	524.8[a/]	209.0	215.2	215.2	NA
Sacramento River	-	-	162.7	165.7	165.7	122.0-180.0
Klamath River[b/]	51.0	37.7	45.3	37.7	37.7	87.2[c/] (1985-1986)
Oregon Coastal chinook	Preseason estimates not made			Preseason estimates not made		150.0-200.0
Columbia River[d/]						
Upriver Spring	50.0	50.0	47.4	NA	NA	100.0-120.0
Lower River Spring (Willamette)	65.0	70.0	84.2	NA	NA	30.0-35.0
Upriver Summer	18.0	20.7	22.4	NA	NA	80.0
Upriver Bright (URB)	90.1	159.1	133.1	159.1	159.1	40.0
Bonneville Pool Hatchery (BPH)	21.3	34.9	46.9	46.8	45.8	10.6[e/]
Lower River Wild (LRW)	16.7	12.9	13.9	12.9	12.9	NA
Lower River Hatchery (LRH)	69.6	81.5	109.9	109.4	106.9	35.0[f/]
Washington Coastal						
Willapa Bay	16.3	NA	NA	NA	NA	See Table I-2

a/ Central Valley production index represents total abundance rather than ocean escapement.

b/ Estimate for 1984 assumes normal ocean distribution pattern; 1985 estimate assumes southern population shift. Both estimates were modeled based on a 60-day season between Point Delgada and Cape Blanco.

c/ Ocean escapement goal.

d/ Preseason forecasts for 1984 and 1985 are based on average ocean harvest rates.

e/ At the hatchery. Inriver run is 18.6.

f/ At the hatchery. Inriver run is 65.5

Table 9. Impacts of 1985 management options on California, Oregon, and Washington chinook fisheries and escapements including 1984 observations (thousands of fish).

Area	Option 1	Option 2	Option 3	1984
OCEAN HARVEST OF CHINOOK				
California				
South of Point Delgada[a/]				
Troll	266.0	273.2	264.0	262.8
Sport	85.2	85.2	87.2	81.3
Total	351.2	358.4	351.2	344.1
California-Oregon				
Point Delgada to Cape Blanco[a/]				
Troll	88.0	44.8	0	52.5
Sport	18.9	19.7	0	17.0
Total	106.9	64.5	0	69.5
Oregon				
Cape Blanco to Cape Falcon				
Troll	42.4	38.3	36.7	35.6
Sport	10.3	9.0	8.8	7.5
Total	52.7	47.3	45.5	43.1
Oregon-Washington[b/]				
North of Cape Falcon				
Troll[c/]	82.5[b/]	54.7[b/]	25.0[b/]	18.1[b/]
Sport	45.8[b/]	28.6[b/]	10.3[b/]	8.6[b/]
Total	128.3[b/]	83.3[b/]	35.3[b/]	26.7[b/]
ESCAPEMENT				
California				
Klamath[d/]	42.2	50.9	58.6	43.3
Sacramento	166.5	167.5	178.2	162.7
Oregon Coast	150-200	150-200	150-200	150-200
Columbia River[b/]				
Bright	159.1	159.1	159.1	133.1
Tules:				
Lower River Hatchery	78.4	92.2	106.9	109.9
Bonneville Pool Hatchery	36.6	39.5	45.8	46.9

a/ Except for troll Option 1 which specifies Cape Vizcaino as the boundary rather than Point Delgada.

b/ Ocean catches north of Cape Falcon and the Columbia River chinook escapements presented here are the result of different levels of allowable catch quotas in any option, arranged from the least to most restrictive quota under Option 1 through 3, respectively. The quotas used include the treaty-troll harvest and were 120,000; 75,000; 25,000 and the 1984 harvest level (18,100). The table does not include the most restrictive catch level analyzed (zero).

c/ Includes non-treaty and treaty troll fisheries.

d/ Inriver run size.

(Shelter Cove area). Fishing regulations between these two landmarks provided for a continuous five-month season whereas approved troll regulations for the area immediately to the north of Point Delgada provided for a two-month season. The northward movement of the southern boundary offsets somewhat the savings realized by reducing the northern California-southern Oregon fishing season from 90 days in 1983 to 60 days in 1984. Further exacerbating the situation in 1984 was the apparent southern shift of the Klamath River population.

An analysis of moving the southern management boundary for Klamath River chinook from Cape Vizcaino to Point Delgada was presented in 1984 (Supplement 3, "Analysis of Impacts of 1984 Regulatory Options Adopted by the Council for Public Review"). Under a no-troll option in the northern California-southern Oregon management area, it was estimated that moving the management boundary northward would reduce the Klamath River inriver run size by about 5 percent in 1984.

Southern Oregon coastal chinook, which are projected to be below average in abundance in 1985, would also benefit from more restrictive regulations in the Shelter Cove area. The impact would probably be comparable to estimated impacts on Klamath River chinook.

Oregon Coast South of Cape Falcon

The escapement goal for Oregon coastal chinook stocks is a range of 150,000 to 200,000 wild adult spawners for all stocks and river systems combined south of Cape Falcon. Any of the options presented for ocean fisheries between Cape Blanco and Cape Falcon will meet the overall Oregon coastal escapement goal range; however, southern Oregon chinook stocks would continue to remain depressed. Evaluation of fishery harvests indicate troll and recreational landings will exceed 1984 levels under all options.

Columbia River

Regulation impacts are described only for Columbia River fall tule chinook produced at Lower River (LRH) and Bonneville Pool hatchery (BPH) facilities. These stocks combined represent the largest component of the ocean chinoook harvest from Cape Falcon to the U.S.-Canada border. The analysis provides stock specific ocean harvest and escapement resulting from each of four potential quota levels. It has been assumed that the three regulation options vary in their impact on tule chinook only according to the total chinook catch allowed (quotas) for treaty troll, non-treaty troll, and recreational fisheries.

Ocean escapement of LRH and BPH fall chinook under the four allowable harvest (quota) levels, including quotas for each fishery, are presented in Table 9. Under a zero harvest quota, which is not displayed in Table 9, the LRH stock escapement is 117,200, and the BPH escapement is 50,200. Under the most liberal ocean catch quota analyzed (128,300), the LRH escapement is reduced to 78,400 and the BPH escapement is 36,600. The ocean escapement level (not including allowances for inriver harvest) that meets basic hatchery production requirements is 65,500 and 18,600 for the LRH and BPH stock, respectively.

Actual season structure for chinook fisheries north of Cape Falcon will depend upon the allowable harvest of chinook and coho. Potential season structures for troll fisheries were analyzed assuming that the objective is to maximize total harvest within allowable catch constraints. The following priorities in structuring the seasons were followed: 1) assure a pink selective fishery, 2) assure an all-salmon season, and 3) assure a chinook-only season. Although all-salmon-except-coho sport and troll fisheries are provided during May and June in each option, insufficient numbers of chinook may be available, if the full allowable harvest of coho is to be taken. For example, assuming the 1984 non-treaty fishery quotas for chinook and coho of 27,000 and 75,000, respectively, and the 1984 allocation between sport and troll fisheries, only 13,600 chinook would be available for the all-salmon-except-coho May troll fishery while no May sport fishery would be allowed.

For recreational fisheries, the primary assumption for the development of alternative season structures was that all-salmon seasons are of higher priority than chinook-only fisheries. Under the 1984 allocation between sport and troll fisheries, insufficient numbers of chinook were available to harvest the full sport coho quota in the all-salmon season for the two highest paired coho and chinook quotas examined. This problem could be alleviated by utilizing species substitution or reallocating sport coho for troll chinook. For the two highest chinook and coho quota levels, full harvest of the sport and troll coho quotas could be achieved through reallocation, but this reallocation would virtually eliminate the May troll fishery.

Coho Salmon Assessment

Oregon Production Index (OPI) Area

The team's evaluation, using methodologies described in the 1985 stock status report, indicate a 1985 OPI area abundance index of 615,000 public hatchery coho and 96,800 private hatchery coho. Using these methods and stock sizes, the team has analyzed the impact of four OPI harvest levels as proposed by the Council and their impact on Oregon coastal natural escapement. This analysis appears in Table 10 and Figure 1.

In all team analyses of impacts and allowable harvest levels, it was assumed that the Oregon coastal natural rebuilding escapement goal for 1985 was 175,000 coho. The team has evaluated the potential 1985 Oregon coastal natural escapements under two slightly different data sets as shown in Figure 1. The analyses differ only by the deletion or addition of the 1979 data point in a 1977 to 1984 regression relationship comparing the measured OPI ocean escapement of adults to natural adult coho escapement to coastal streams.

The four proposed Council harvest options call for a range of OPI harvests from 225,000 to 545,000 coho (Table 10). Based on the team's analysis, none of the four Council-proposed harvest scenarios would meet the 1985 Oregon coastal escapement rebuilding goal of 175,000. Harvest Option A, allowing the lowest harvest (225,000 fish harvest south of Cape Falcon and no Columbia River area catch), comes the closest to meeting the goal with a projected natural escapement estimated at 126,000 to 137,000 depending on the analytical relationship used in Figure 1. Under the highest harvest option of 545,000 fish (315,000 fish south of Cape Falcon and 230,000 in the Columbia River

Table 10. Estimated regulation option impacts on 1985 Oregon Production Index (OPI) area coho and escapements based on team's analysis[a/].

Item	Council Proposed Harvest Scenarios A	B	C	D
Projected OPI Catch[b/]	225	315	455	545
Columbia River	0	0	230	230
South of Cape Falcon	225	315	225	315
OPI Area Index	616	616	616	616
Private Hatchery Catch[c/]	22	31	45	54
OPI Ocean Escapement[d/]	413	332	206	125
Oregon Coastal Natural Escapement Analysis				
Team Analysis[e/]				
1. Excluding the 1979 data point	126	107	78	59
2. With the 1979 data point	137	117	86	66
ODFW Analysis[f/]	191	160	168	137

a/ Analysis based on current team methodologies as described in "1985 Ocean Salmon Fisheries Stock Status Projections, Management Goals, and Regulations Impact Analysis," section III.

b/ Troll-sport allocations are as shown in the Pacific Fishery Management Council (PFMC) salmon framework amendment.

c/ Private hatchery catch projected by independent estimate based on past survival characteristics, estimated stock size, and anticipatd OPI fishery harvest rate.

d/ OPI ocean escapement calculated by subtracting projected ocean harvest from OPI stock size (i.e., OPI index value plus private hatchery catch).

e/ The team has analyzed the level of predicted Oregon coastal natural escapement using the regression relationship of measured OPI ocean escapement to Oregon coastal natural escapement as shown in Figure 1. Two separate estimates were made using a 1977-1984 data base. The first estimate excluded the 1979 data point as was done in 1984 and the second included it as was done in the 1980 to 1982 analyses at the request of the Scientific and Statistical Committee.

f/ Estimates of natural escapement shown are based on a modified ODFW methodology of partitioning the OPI into individual stocks and utilizing the WDF-NBS catch-regulation analysis model for input analysis. The method was presented at the March 12 Council meeting jointly by Oregon and Washington and currently is under review.

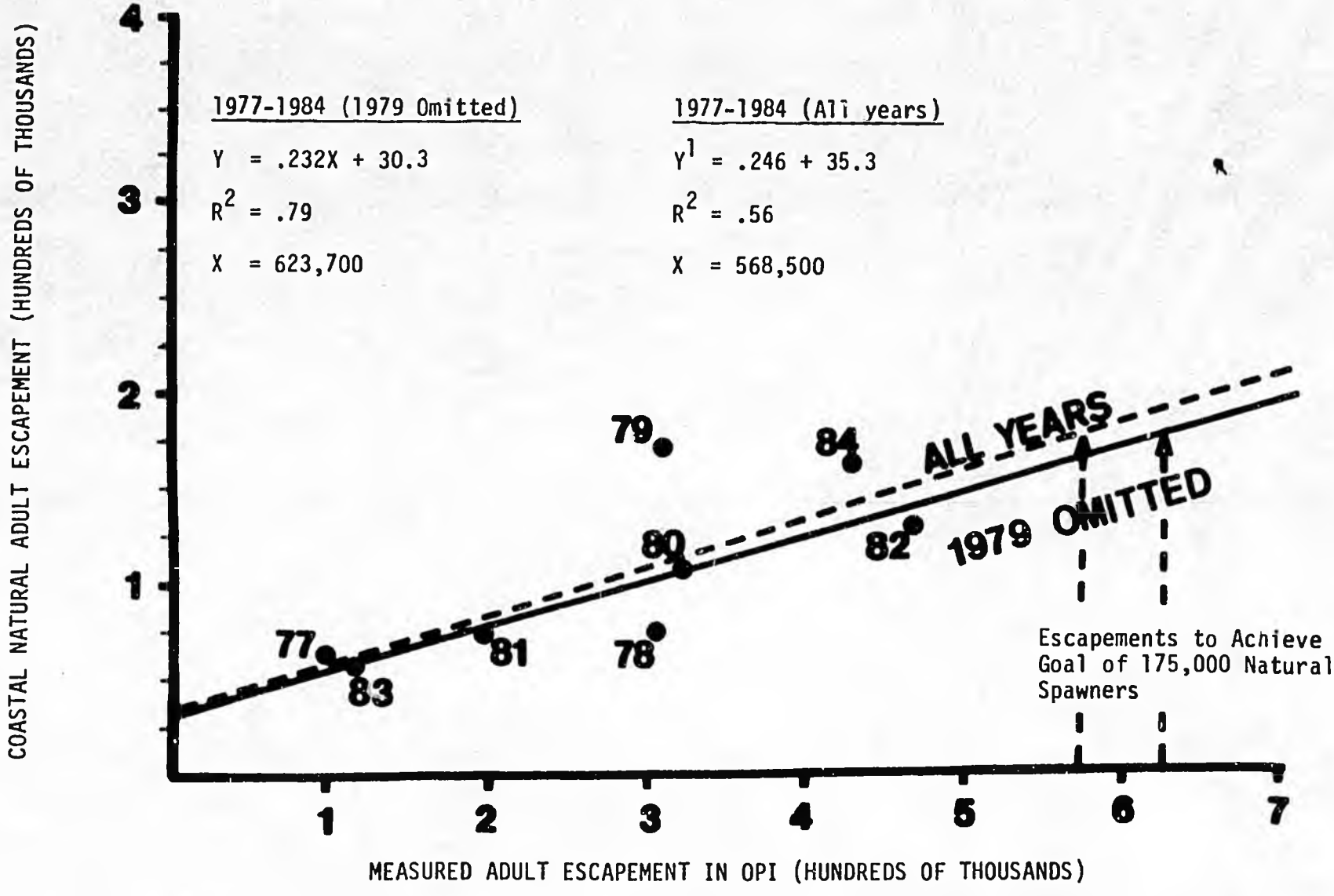

Figure 1. Relationship between the natural adult coho escapement to Oregon coastal rivers and the measured escapement of adult coho to the Oregon Production Index (OPI), 1979-1984.

area), projections of coastal natural escapement would be only 59,000 to 66,000 fish.

Concerns have been expressed by some team members that use of the current team methodologies for determining allowable harvest of OPI area stocks should be reevaluated due to alterations in conditions underlying the relationship between Oregon coastal natural and OPI index area ocean escapements. ODFW has estimated impacts of 1985 fishery regulations using an alternative method, and the results are included in Table 10. The team is currently evaluating the acceptability of this alternative method.

Washington Coast and Puget Sound

Ocean escapement for selected Washington coastal and Puget Sound coho stocks, resulting from ocean fishery regulations proposed by the Council under four total coho harvest levels (quotas), is presented in Table 11. Since no regulation option was proposed for the treaty Indian troll fishery the 1984 harvest level was used for analysis.

In summary, even under the most restrictive option/quota (zero harvest north of Cape Falcon) the escapement goal for Skagit River natural coho would not be achieved. All other stocks examined show ocean escapements at levels which are in excess of spawning escapement goals or lie within the acceptable escapement range in the absence of inside area incidental or directed harvest.

Pink Salmon Troll Fishery Assessment

All three troll options provide for an August fishery north of Carroll Island with gear restricted to flashers with bare, blued hooks. The estimated pink harvest in this fishery is dependent upon quotas selected for coho and chinook.

Results from a 1983 observer program conducted by Washington Department of Fisheries (WDF) to evaluate the selectivity of this gear determined that 1,404 coho (86 percent legal and 14 percent sublegal) and 468 chinook (6 percent legal and 94 percent sublegal) were hooked for every 10,000 pinks. Using a 30 percent hook-and-release mortality rate for sublegal chinook and coho, it is estimated that 1,271 coho and 163 chinook would be landed or killed incidentally for each 10,000 pinks taken.

If no harvest of either coho or chinook is permitted, then incidental impacts on these species would preclude the harvest of pinks. Under any north of Cape Falcon chinook quota option, other than Option A (Table 7), the harvest of pinks would not be constrained by impacts on chinook.

With north of Cape Falcon troll coho quota Option B of 24,300, the harvest of pinks would be limited to 190,000. With either troll coho quota Options C or D, the estimated pink harvest is 350,000, a level approximating the average catch during 1977, 1979, and 1981. Unrestricted by incidental impacts on chinook or coho, the 1985 pink catch is expected to be significantly higher than the 1983 level due to the increased length of the season, the ability to retain other species, and the demonstrated effectiveness of the gear.

Table 11. Ocean escapement of selected natural spawning coho stocks and ocean catch in 1985, under preliminary ocean fishery regulations and quotas considered by the Council (numbers of fish in thousands).

	Coho Quota North of Cape Falcon (Non-Treaty Fisheries)				
	0	75	380	500[a/]	
Stock	Ocean Escapement				Spawning Escapement Goal
Skagit	28.7	27.6	23.9	NA	30,000
Stillaguamish	27.3	26.7	25.0	NA	17,000
Quillayute Falls	23.5	22.5	17.1	NA	6,200-15,800
Hoh	8.1	7.7	5.9	NA	2,000- 5,000
Queets	13.8	13.2	11.0	NA	5,800-14,500
Grays Harbor	63.6	62.1	55.2	NA	35,400
Fishery	Ocean Catch				
North of Cape Falcon[b/]	44.8	68.1	196.9	NA	
Troll[c/]	0	57.9	228.9	NA	
Sport					
South of Cape Falcon[d/]					
Troll	55.1	55.1	146.4	NA	
Sport	169.4	169.2	167.1	NA	

a/ Not available at time of printing.
b/ Sport-troll allocation same as occurred under actual 1984 quotas.
c/ Includes treaty-troll catch which was assumed to be 44,800 for all quota levels.
d/ The quota levels south of Cape Falcon which were matched to the north of Cape Falcon quotas included 225,000 and 315,000.

SPECIAL MANAGEMENT PROBLEMS AND CONCERNS

Salmon Plan Development Team

Klamath River Chinook Salmon

The Klamath River chinook salmon resource of northwestern California has been a major concern of the Council since 1978 when the Council adopted a spawning escapement goal for this stock of 115,000 adult spawners, including 97,500 natural spawners and 17,500 hatchery spawners. Since that year, annual goals have been reduced. In 1980 the goal was lowered to 86,000 adults because of adverse drought conditions in 1977 and 1978. In 1983 the goal was changed to inriver run size and the escapement lowered to an average inriver adult run size during 1983 to 1986 of 68,900 adults. Ocean harvest restraints have been applied to varying degrees, but the runs have continued to decline. The decline of the Klamath River resource is graphically portrayed in Figure II-5 of the Council's "1984 Ocean Salmon Fisheries Review." In 1984, the Klamath River spawning escapement of 22,700 adults was the lowest since 1978, when comprehensive, basin-wide escapement monitoring began.

In addition to adverse environmental conditions, including 1977 through 1978 drought conditions and the 1983 El Nino event, inconsistencies between ocean and inland fishery management plans have contributed to the decline. The issue for 1985 is not what has happened in the past, but what must be done beginning in 1985 to rebuild this resource in a timely manner.

The stock projection for 1985 is for a lower population size than any year since 1978. Even with no ocean fishing in the northern California and southern Oregon management area, there is little prospect of meeting the 1983-1986 adult inriver run size rebuilding goal of 68,900.

Because the population of Klamath River chinook has reached such critically low levels, every effort should be undertaken in 1985 to protect and rebuild this stock, including expanding the ocean management area at least as far south as Cape Vizcaino and closing ocean chinook fisheries in the entire Cape Vizcaino to Cape Blanco area.

We are also very concerned that because of the relatively small number of chinook projected to return to the Klamath River in 1985, under any regulatory option, some fishing interests may construe that those relatively few fish have minimal potential for future production. The Klamath River system has historically contributed substantial numbers of chinook to northern California and southern Oregon fisheries and the capacity of the system to support spawning fish and produce juvenile out migrants is very high. An increase in spawning stock at such a low level of seeding is extremely important for quickly rebuilding the run. The stock is currently severely depressed and it will continue to be depressed until fishery impacts are adequately constrained.

The team also is concerned that the viability of some of the production subunits within the basin may already have been irreparably damaged. Rebuilding of these subunits will depend on straying, rather than reproduction of the native stock.

We strongly urge that all of the management entities involved with ocean or inriver management of Klamath River chinook jointly develop a plan for increasing the spawning escapement of this stock. The Council must ensure every effort to meet the existing management goal.

Coho - Chinook Quota Interaction

For the area north of Cape Falcon, the Council has applied a number of potential coho and chinook quotas for the three troll and three sport regulatory options. However, because of interaction between fisheries for different species, these quotas must be evaluated concurrently. Many combinations of these quotas are incompatible with the objective of achieving a full harvest. For example, the recreational fishery chinook quotas are not sufficient to permit the full coho harvests under coho quotas of 254,300 and 374,700.

The team is extremely concerned over the complexity created in the regulatory option analysis by the selection of a range of quotas by the Council members. Under the regulatory package approved by the Council for public review, at least 16 different recreational season structures and 32 different troll season structures are possible for analysis under each regulatory option. Even with analysis limited to three paired regulatory options, the number of possible combinations is over 1,500, just for fisheries north of Cape Falcon. Further, the simple addition of a single footnote for alternative ways to conduct troll seasons multiplies this problem of complex analysis.

Troll catches and season structures for combinations of chinook and coho quotas, under the assumption that catch during any all-salmon season would be split 50-50 in the Grays Harbor-Columbia River areas and Grays Harbor-Quillayute areas, are provided in Tables 12 and 13, respectively. Table 14 provides recreational catches and season structures for combinations of the chinook and coho quotas approved by the Council for public review. Under these combinations, the "optimum" is dependent upon individual perspective on preferred species and seasons.

Presenting the public with complex or unrealistic options for review causes undue confusion and reduces the chance for meaningful comment. The team urges the Council to exercise restraint in recommending quota levels for team analysis and public comment. Otherwise, a tremendous amount of work is generated for the team that has little value to the Council or the public.

Continuation of Single Species Fisheries after Quota Achievement

Regulations which allow continued fishing after the quota for one species is reached (e.g. troll Option 3 - Leadbetter Point to Cape Alava), are likely to lead to exceeded quotas. There is a great deal of uncertainty in the preseason determination of when the quota will be reached and the allowance of the necessary hooking mortality after that point to assure that an overall quota will not be exceeded. Since quotas for each fishery are based on the total allowable harvest for critical chinook and/or coho stocks, all anticipated fishery impacts, in the form of landed catch or indirect (hooking) mortality, must be included in the formulation of fishery quotas.

It is expected that in 1985, quotas for one species may preclude full harvest of the other species' quota. Compatible design of fisheries, including troll-sport allocation of allowable harvest will help reduce management problems with dual species quotas. However, quotas which are ultimately adopted should not necessarily be considered as a guaranteed harvest. Additional, unanticipated fishery impacts should not be allowed in the pursuit of full harvest of all quotas.

Three-Fish Bag Limit North of Queets River

All three recreational options provide for changing to a three-fish bag limit (two pinks and one coho or chinook) after July 28 in the area north of the Queets River. In similar time/area strata during previous odd years, high coho and chinook catch rates per pink have been observed under a two-fish bag limit. Although the team did not attempt to quantify it, considerable shaker mortality of coho and chinook could occur as a result of this bag limit restriction.

Salmon Advisory Subpanel

The Salmon Advisory Subpanel is concerned about possible fishing effort shifts to southern California and the impact this would have on Sacramento River stocks. If this effort shift actually occurs, the advisors suggested some inseason triggering mechanism be developed to adjust regulations appropriately.

They also suggested that California should assure, through legislative action, that commercially licensed boats which fish under a recreational license in 1985 should be prohibited from future commercial licensing.

California advisors also felt that any harvest restrictions should be accompanied by the following.

1. Strong Council support for a coordinated study to greatly improve the information available for determining spawning escapement needs in the Klamath River.

2. Proper adjustment of water flows over Lost Creek Dam on the Rogue River and construction of fish passage facilities around the dam.

3. Full and proper protection and monitoring of salmon stocks impacted by the Winchester Dam hydro project on the Umpqua River.

Finally, the advisors recommended that the Council should encourage the State of California, official representatives of tribal governments on the Klamath River system, and troll industry representatives to begin negotiations regarding inriver harvest management and spawning escapement levels for that system.

Table 12. Season total non-treaty troll catches of coho, chinook, and pink salmon north of Cape Falcon under chinook and coho quota combinations, assuming all salmon catches are distributed 50-50 between Grays Harbor and Columbia River catch areas (thousands of fish).

Coho Quota	Season	Chinook Quota: 0			Chinook Quota: 16.7			Chinook Quota: 46.4			Chinook Quota: 74.2		
		Coho	Chinook	Pink	Coho	Chinook	Pink	Coho	Chinook	Pink	Coho	Chinook	Pink
0	Pink	0	0	0	0	0	0	0	0	0	0	0	0
	All Salmon	0	0	0	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	16.7	0	0	46.4	0	0	74.2	0
	Total	0	0	0	0	16.7	0	0	46.4	0	0	74.2	0
24.3	Pink	0	0	0	23.2	0.6	190.0	23.2	0.6	190.0	23.2	0.6	190.0
	All Salmon	0	0	0	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	13.6	0	0	43.3	0	0	71.1	0
	Total	0	0	0	23.2	14.2	190.0	23.2	43.9	190.0	23.2	71.7	190.0
125.6	Pink	0	0	0	42.5	1.1	350.0	42.5	1.1	350.0	42.5	1.1	350.0
	All Salmon	0	0	0	55.4	11.0	3.8	81.1	16.1	5.6	81.1	16.1	5.6
	May	0	0	0	0	0	0	0	24.6	0	0	52.4	0
	Total	0	0	0	97.9	12.1	353.8	123.6	41.8	355.6	123.6	69.6	355.6
165.3	Pink	0	0	0	42.5	1.1	350.0	42.5	1.1	350.0	42.5	1.1	350.0
	All Salmon	0	0	0	55.4	11.0	3.8	120.8	24.0	8.3	120.8	24.0	8.3
	May	0	0	0	0	0	0	0	16.7	0	0	44.5	0
	Total	0	0	0	97.9	12.1	353.8	163.3	41.8	358.3	163.3	69.6	358.3

Table 13. Season total non-treaty troll catch of coho, chinook, and pink salmon north of Cape Falcon under chinook and coho quota combinations, assuming all salmon catches are distributed 50-50 between Grays Harbor and Quillayute catch areas (thousands of fish).

Coho Quota	Season	Chinook Quota: 0			Chinook Quota: 16.7			Chinook Quota: 46.4			Chinook Quota: 74.2		
		Coho	Chinook	Pink	Coho	Chinook	Pink	Coho	Chinook	Pink	Coho	Chinook	Pink
0	Pink	0	0	0	0	0	0	0	0	0	0	0	0
	All Salmon	0	0	0	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	16.7	0	0	46.4	0	0	74.2	0
	Total	0	0	0	0	16.7	0	0	46.4	0	0	74.2	0
24.3	Pink	0	0	0	23.2	0.6	190.0	23.2	0.6	190.0	23.2	0.6	190.0
	All Salmon	0	0	0	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	13.6	0	0	43.3	0	0	71.1	0
	Total	0	0	0	23.2	14.2	190.0	23.2	43.9	190.0	23.2	71.7	190.0
125.6	Pink	0	0	0	42.5	1.1	350.0	42.5	1.1	350.0	42.5	1.1	350.0
	All Salmon	0	0	0	35.0	11.0	9.5	81.1	25.5	21.9	81.1	25.5	21.9
	May	0	0	0	0	0	0	0	15.2	0	0	43.0	0
	Total	0	0	0	77.5	12.1	359.5	123.6	41.8	371.9	123.6	69.6	371.9
165.3	Pink	0	0	0	42.5	1.1	350.0	42.5	1.1	350.0	42.5	1.1	350.0
	All Salmon	0	0	0	35.0	11.0	9.5	120.8	38.0	32.7	120.8	38.0	32.7
	May	0	0	0	0	0	0	0	2.7	0	0	30.5	0
	Total	0	0	0	77.5	12.1	359.5	163.3	41.8	382.7	163.3	69.6	382.7

Table 14. Season total recreational catches of coho and chinook salmon north of Cape Falcon under chinook and coho quota combinations[a/] (thousands of fish).

		Chinook Quota: 0		Chinook Quota: 10.3		Chinook Quota: 28.6		Chinook Quota: 45.8	
Coho Quota	Season	Coho	Chinook	Coho	Chinook	Coho	Chinook	Coho	Chinook
0	All Salmon	0	0	0	0	0	0	0	0
	Chinook Only	0	0	0	10.3	0	28.6	0	45.8
	Total	0	0	0	10.3	0	28.6	0	45.8
50.2	All Salmon	0	0	50.2	10.3	50.2	10.2	50.2	10.2
	Chinook Only	0	0	0	0.1	0	18.4	0	35.6
	Total	0	0	50.2	10.3	50.2	28.6	50.2	45.8
254.3	All Salmon	0	0	50.7	10.3	140.9	28.6	171.5	45.8
	Chinook Only	0	0	0	0	0	0	0	0
	Total	0	0	50.7	10.3	140.9	28.6	171.5	45.8
334.7	All Salmon	0	0	50.7	10.3	140.9	28.6	171.5	45.8
	Chinook Only	0	0	0	0	0	0	0	0
	Total	0	0	50.7	10.3	140.9	28.6	171.5	45.8

a/ Catch distribution between ports based on 1977-1982 average.

POTENTIAL SOCIO-ECONOMIC IMPACTS OF PROPOSED OPTIONS

Introduction

In the following section some potential short-term impacts are described for the three regulatory options south of Cape Falcon and for a range of 16 different chinook and coho quota combinations north of Cape Falcon. For the troll fishery, impacts are expressed in terms of changes in ex-vessel value compared to 1984. Changes in number of angler days, recreational user value, and estimated gross charterboat revenue are estimated for the ocean recreational fishery. Community impact will be addressed in terms of changes in local household income resulting from changes in commercial and recreational ocean harvest.

Impacts are expressed in terms of changes from 1984 levels. The depressed salmon stock conditions and restrictive seasons experienced during 1983 and 1984 negatively impacted ocean fisheries and related businesses. Therefore, a prediction of no change from 1984 indicates a continuation of depressed economic conditions. All impacts described are short-term impacts. The issue of long-term socio-economic costs and benefits under the various options is not addressed in this analysis.

Categories of 1985 Salmon Fishery Participants

Table 15 provides a listing of the categories of participants which may be impacted either directly or indirectly by the 1985 salmon regulations. Where possible, information on the number of vessels and/or licenses in the fishery in 1984 is provided. In terms of employment, each troll vessel will have one or two fishermen employed aboard while gillnetters generally have a two-person crew.

The number of dealer licenses include all persons buying salmon. In some cases, fishermen are selling their catch directly to the public from their vessels and are required to have dealer permits. Therefore, some individuals may be counted twice. For Oregon, only those dealers who returned at least 10 fish tickets are included.

The number of charterboats licensed to fish are included for Washington and Oregon, together with an estimate of the number of San Francisco area charter vessels. Charterboat vessels generally carry one or two crew members in addition to the skipper. Also a proportion of these operations require shoreside help to take care of bookings, etc. The total number of employees is not available.

Troll Ex-Vessel Value Impacts

Predicted changes in total ex-vessel value landed under the three options for south of Cape Falcon are shown in Table 16. Changes in chinook ex-vessel value were calculated by multiplying the expected change in harvest (see Table 9) by the average weight per chinook and the average price per pound received in 1984. If average weights more closely resembled pre-El Nino (1976 to 1982) averages, the predicted impacts would be increased by 15 percent south of Point Delgada, 6 percent from Point Delgada to Cape Blanco, and 15 percent for Cape Blanco to Cape Falcon.

Table 15. Categories of 1984 salmon fishery participants.

Category	Number of Licenses/Permits[a/]
Commercial participants	
Trollers	
Washington-based	2,109
Oregon-based	3,197
California-based	4,180
Net fishermen	
Oregon Columbia River gillnetters	437
Grays Harbor and Columbia River gillnetters	192
Willapa Bay and Columbia River gillnetters	393
Puget Sound gillnetters	1,273
Puget Sound reefnetters	54
Puget Sound purse seiners	360
Private aquaculturists (3)	
Processors, marketing agents, and consumers: the marketing sector	
Number of dealer permits issued in 1984	
Washington	263[b/]
Oregon	45[b/]
California	50[d/]
Recreational participants	
Ocean charterboat operators and anglers	
Washington charterboat fleet	280
Oregon charterboat fleet	218
California charterboat fleet	70[e/]
Private ocean sport fishermen	
Washington, Oregon, and California-based	
Inland sports fishermen	
Washington, Oregon, California, and Idaho-based	
Indian participants	
Treaty commercial fishermen	
Net fishermen: Columbia River, Washington coastal rivers, Grays Harbor, and Puget Sound	
Trollers: Washington-based	
Ceremonial and subsistence fishermen: Washington, Columbia River, and Klamath River	
Coastal communities	
In Washington, Oregon, and California	
Other participants, including federal and state taxpayers	

a/ These numbers are preliminary 1984 data. Not all permit holders actually fished in 1984.
b/ These include dealers who bought fish caught in Oregon, California, and Alaska. Some dealers which have bought fish from other dealers may also be included.
c/ Only those dealer which reported at least 10 fish tickets are included.
d/ A number of these buyers have several buying stations in different ports.
e/ This includes salmon charterboats in the San Francisco area only.

Table 16. Change in troll ex-vessel value south of Cape Falcon compared to 1984.[a/]

	Chinook	Coho[b/]
Option 1		
South of Point Delgada	$ 75,000	
Point Delgada-Cape Blanco	853,000	
Cape Blanco-Cape Falcon	158,000	
Option 2		
South of Point Delgada	244,000	
Point Delgada-Cape Blanco	- 179,000	
Cape Blanco-Cape Falcon	63,000	
Option 3		
South of Point Delgada	28,000	
Point Delgada-Cape Blanco	- 1,207,000	
Cape Blanco-Cape Falcon	26,000	

a/ Assuming 1984 average weight and prices.

b/ Coho harvest was not distributed by area south of Cape Falcon. Estimated total coho ex-vessel value south of Cape Falcon would range from $419,000 to $1,637,000 for OPI catches of 225,000 and 315,000, respectively. Compared to 1984 this would represent changes of -$268,000 to $950,000.

South of Cape Falcon

Option 1 (Chinook) - Under this option, troll harvest of chinook would be expected to increase in all three management areas south of Cape Falcon. The greatest increase would occur in the area between Cape Vizcaino and Cape Blanco, resulting in a predicted increase in ex-vessel value of $853,000. A total increase in ex-vessel value south of Cape Falcon of $1,086,000 would be expected, assuming 1984 average weights and prices.

Option 2 (Chinook) - The greatest increase in chinook ex-vessel landed value under this option is predicted in the area south of Point Delgada, while a decrease of $179,000 is estimated for the area between Point Delgada and Cape Blanco. The total increase over 1984 is estimated to be $128,000.

Option 3 (Chinook) - Under the most restrictive option, a loss of $1,207,000 between Cape Blanco and Cape Falcon would be expected as a result of a total season closure. Increases of $28,000 and $26,000 for south of Point Delgada and between Cape Blanco and Cape Falcon, respectively, are predicted. Total ex-vessel value south of Cape Falcon under this option is estimated to be down $1,153,000.

Coho South of Cape Falcon - The impacts of 1985 options on California and Oregon coho landings south of Cape Falcon are shown in Table 17. The regional distribution of troll coho catches was not predicted. Estimated total value of troll landings south of Cape Falcon would range from $419,000 to $1,637,000 for total OPI allowable catch levels of 225,000 and 315,000 coho, respectively. Compared to 1984, this would represent changes of -$268,000 to +$950,000.

North of Cape Falcon

Predicted changes in ex-vessel value landed compared to 1984 for 16 combinations of the coho and chinook quotas proposed by the Council for public review are illustrated in Tables 18 and 19. In calculating these estimates, 1984 season average weights were assumed for all-species fisheries and May 1984 weights were assumed for chinook harvests expected during the chinook-only fishery. The average of 1981 and 1983 pink salmon ex-vessel prices, inflated to 1984 dollars, and the 1979-1983 average weight was employed. If average weights more closely resembled 1979-1982 pre-El Nino weights, chinook and coho impacts would be expected to be 26 and 9 percent greater, respectively. Changes from actual 1984 harvests rather than from the 1984 preseason quotas are described. Table 18 assumes that catches are distributed 50-50 between Grays Harbor and Columbia River catch areas, while Table 19 assumes a 50-50 catch distribution between Grays Harbor and Quillayute catch areas.

Comparison of Changes in Ex-Vessel Value Landed Under Two Catch Distribution Scenarios - Under the Grays Harbor and Columbia River catch scenario, total ex-vessel value impacts range from -$612,000 under the most restrictive quota combinations to +$3,197,000 under the most liberal combination. The range for the Grays Harbor and Quillayute scenario is -$612,000 to +$3,250,000. The change in total ex-vessel value compared to 1984 begins to become positive (+$332,000) at quota levels of 24,300 coho and 16,700 chinook under either catch scenario. In addition, regardless of chinook quota or catch

Table 17. Impact of 1985 options on California and Oregon coho landings for the area south of Cape Falcon (thousands of fish).

Option	California[a/]		Oregon	Total
	South	North[b/]	South of Cape Falcon	
Option 1				
Sport	1.9	18.0	150.1	170.0
Troll	c/	c/	c/	c/
Option 2				
Sport	1.9	16.8	151.3	170.0
Troll	c/	c/	c/	c/
Option 3				
Sport	1.9	0.0	168.1	170.0
Troll	c/	c/	c/	c/

a/ California sport landings are based on 1979 to 1983 averages. During these years statewide sport landings ranged from 9.7 to 26.9 thousand coho.

b/ For Option 1, the management area is Cape Vizcaino to Oregon-California border. For Option 2, the management area is between Point Delgada and the Oregon-California border.

c/ Under a 225,000 quota south of Cape Falcon, the allowable troll impact would be 55,000. Under a 315,000 quota the allowable impact would be 145,000. From these impact levels, fish must be subtracted for hooking mortality in expected chinook-only fisheries.

Table 18. Estimated change in total ex-vessel value of non-treaty troll catches of coho, chinook, and pink salmon north of Cape Falcon under chinook/coho quota combinations, assuming all salmon catches are distributed 50-50 between Grays Harbor and Columbia River catch areas.

Coho Quota	Chinook Quota: 0			Chinook Quota: 16.7			Chinook Quota: 46.4			Chinook Quota: 74.2		
	Coho	Chinook	Pink	Coho	Chinook	Pink	Coho	Chinook	Pink	Coho	Chinook	Pink
0	-$262,000	-$350,000	- [a]	-$262,000	$83,000	- [a]	-$262,000	$835,000	- [a]	$-262,000	$1,538,000	- [a]
	Total: -$612,000			Total: -$178,000			Total: $573,000			Total: $1,277,000		
24.3	-262,000	-350,000	- [a]	-107,000	21,000	418,000 [a]	-107,000	797,000	418,000 [a]	-107,000	1,523,000	418,000
	Total: -$612,000			Total: $332,000			Total: $1,108,000			Total: $1,835,000		
125.6	-262,000	-350,000	- [a]	+451,000 [b]	-34,000	778,000	643,000	742,000	782,000	643,000	1,469,000	782,000
	Total: -$612,000			Total: $1,196,000			Total: $2,168,000			Total: $2,894,000		
165.3	-262,000	-350,000	- [a]	451,000 [b]	-34,000	778,000	940,000	742,000	788,000	940,000	1,469,000	788,000
	Total: -$612,000			Total: $1,196,000			Total: $2,470,000			Total: $3,197,000		

a/ Total available pink salmon not harvestable due to chinook or coho quota constraints.
b/ Total coho quota not available for harvest.

Table 19. Estimated change in total ex-vessel value of non-treaty troll catches of coho, chinook, and pink salmon north of Cape Falcon under chinook/coho quota combinations, assuming all salmon catches are distributed 50-50 between Grays Harbor and Quillayute catch areas.

Coho Quota	Chinook Quota: 0			Chinook Quota: 18.7			Chinook Quota: 46.4			Chinook Quota: 74.2		
	Coho	Chinook	Pink	Coho	Chinook	Pink	Coho	Chinook	Pink	Coho	Chinook	Pink
0	-$262,000	-$350,000	- [a]	-$262,000	$83,000	- [a]	-$262,000	$835,000	- [a]	-$262,000	$1,538,000	- [a]
	Total: -$612,000			Total: -$178,000			Total: $573,000			Total: $1,487,000		
24.3	-262,000	-350,000	- [a]	-107,000	21,000	+418,000 [a]	-107,000	797,000	418,000 [a]	-107,000	1,523,000	418,000 [a]
	Total: -$612,000			Total: $332,000			Total: $1,108,000			Total: $1,835,000		
125.6	-262,000	-350,000	- [a]	299,000 [b]	-34,000	791,000	643,000	742,000	818,000	643,000	1,469,000	818,000
	Total: -$612,000			Total: $1,056,000			Total: $2,203,000			Total: $2,930,000		
165.3	-262,000	-350,000	- [a]	299,000 [b]	-34,000	791,000	940,000	742,000	842,000	940,000	1,469,000	842,000
	Total: -$612,000			Total: $1,056,000			Total: $2,524,000			Total: $3,250,000		

a/ Total available pink salmon not harvestable due to chinook or coho quota constraints.
b/ Total coho quota not available for harvest.

distribution, only about half of the potential pink salmon harvest would be available to the fishery with a coho quota equal 24,300. With a chinook quota of 16,700 coupled with coho quotas of either 125,600 or 165,300, a greater proportion of the coho quota would be available for harvest under the Grays Harbor and Columbia River catch distribution. Under these same quota combinations, more pink salmon would be harvested under the Grays Harbor and Quillayute catch scenario. While total ex-vessel value received is higher for the Grays Harbor and Quillayute catch distribution at higher coho and chinook quotas there would be fewer chinook available for a chinnok-only May fishery.

Columbia River Inriver Fisheries

Regardless of the ocean regulatory regime selected, the projections for 1985 inriver fisheries indicate that harvest of Lower River hatchery chinook tule stocks and the late coho fishery involving Cowlitz River stocks will need to be severely curtailed. Negotiations are presently occurring between Indian and non-Indian harvesters over the allocation of harvest in the upriver bright chinook fishery.

In 1984, many of the early returning coho were taken in the inriver Buoy 10 sport fishery. More liberal ocean regulatory options in the Oregon and southern Washington management areas would tend to reduce the inriver availability of these fish. The late season coho fishery is impacted by ocean fisheries occurring in Washington and in Canadian waters. The more liberal these fisheries are in 1985, the greater the impact will be on the inriver commercial harvest.

Ocean Recreational Impacts

The following three measures of impacts on the ocean recreational fishery are presented in this section: changes in angler trips, recreational user value, and gross revenue to the charterboat fleets. The 1984 success rates were assumed, except for the analysis of north of Cape Falcon quota areas. In that analysis, the average of 1977-1982 success rates was used, due to the highly restrictive season in 1984. The predicted change in angler trips in the chinook-only fisheries was calculated assuming a success rate of 1.8 salmon per trip, while the 1977-1982 success rates during the July through August all-salmon fisheries were aproximately 1.0 coho per trip and 0.25 chinook per trip.

It must be stressed that recreational user value does not represent angler expenditures. Angler expenditures represent recreational fishery-related impacts on the coastal and state economies and will be used later to estimate changes in household income in coastal communities. The recreational user values represent the net economic value to ocean recreational anglers or the anglers' net willingness to pay above cost ("consumer surplus"). A recreational angler day value for ocean salmon fishing of $40 was used, based on information in an 1980 Oregon State University report by Brown, Sorhus, and Gibbs.

Gross charterboat revenues were estimated, assuming that the percentage of angler trips taken on charterboats would be the same as in 1984 and that the average charterboat rate per day is $42 in Washington and $45 in Oregon and California.

Recreational Impacts South of Cape Falcon

Table 20 summarizes predicted impacts south of Cape Falcon. Under Option 2, a Monday through Tuesday closure is proposed between July 15 and September 15 in California north of Point Delgada. In calculating the change in angler trips, it was assumed that half of the Monday-Tuesday effort would be redistributed.

Option 1 - South of Cape Vizcaino an increase of 3,900 chinook would be predicted. Using a success rate of 1.03 chinook per trip, an additional 3,800 angler trips would be expected, resulting in an increase in recreational user value of $152,000. The change in gross charterboat revenue is calculated to be $120,000, using an average rate of $45 per person per trip and assuming that 70 percent of the total trips in this area would be taken on charterboats.

From Cape Vizcaino to the Oregon-California border an increase of 6,850 angler trips compared to 1984 would be predicted during the last two weeks in June. This would result in an increase in recreational user value of $274,000. In Oregon, south of Cape Falcon, an additional 70,000 angler trips are predicted, resulting in an increase in recreational user value of $2,800,000 and an estimated increase in gross charterboat revenues of $504,000. Assuming that less than 10 percent of the California recreational effort north of Cape Vizcaino takes place on charterboats, the maximum increase in gross charterboat revenue predicted is $31,000.

Option 2 - South of Point Delgada the impacts would be the same as in Option 1 (assuming no effort shifts). Between Point Delgada and the Oregon-California border, an additional 3,250 angler trips are predicted. The Shelter Cove fishery would also be included in this area with the boundary change. Approximately 150 additional angler trips would be expected out of Shelter Cove. With the south of Cape Falcon recreational coho quota of 170,000 fish, an additional 80,000 angler trips would be expected to occur in Oregon south of Cape Falcon. Limiting fishing days to Sunday through Thursday would be expected to increase the total season length.

Option 3 - Assuming no effort shifts, the impact south of Point Delgada would be expected to be the same as under Options 1 and 2. However, with a total closure north of Point Delgada, some effort shifts may be expected, resulting in an increase in angler trips. Between Point Delgada and the Oregon-California border the total number of angler trips in 1984 was 41,000. Therefore, a loss of 41,000 angler trips compared to 1984, resulting in a decrease of $1,656,000 in recreational user value and a loss of $185,000 in gross charterboat revenues would be predicted. While an additional 100,000 angler trips would be expected in the area between Cape Blanco and Cape Falcon, there would be a total closure south of Cape Blanco. In 1984, 38,000 angler trips occurred in Oregon south of Cape Blanco. Therefore, a loss in recreational user value and gross charterboat revenues of $1,520,000 and $274,000, respectively, would be predicted for that area.

Recreational Impacts North of Cape Falcon

Tables 21 through 23 summarize the estimated changes in angler trips, recreational user value, and gross charterboat revenues under various combinations of the chinook and coho quotas proposed by the Council. Changes

Table 20. Estimated change in angler trips, recreational user value, and gross charterboat revenue south of Cape Falcon compared to 1984.

Option	Change in Angler Trips	Change in Recreational User Value	Change in Gross Charterboat Revenue
Option 1			
California			
South of Cape Vizcaino	3,800	$ 152,000	$120,000
Cape Vizcaino to OR-CA border	6,800	274,000	31,000[d/]
Oregon			
South of Cape Falcon	70,000	2,800,000	504,000
Option 2			
California			
South of Point Delgada	3,800	152,000	120,000
North of Point Delgada	3,200[a/]	128,000	14,000
Oregon			
South of Cape Falcon	80,000	3,200,000	576,000
Option 3			
California			
South of Point Delgada	3,800	152,000	120,000
North of Point Delgada; CA	-41,000[b/]	-1,640,000[b/]	-185,000[b/]
Oregon			
South of Cape Falcon	100,000[c/]	4,000,000	720,000

a/ An additional 150 angler trips expected in Shelter Cove area.

b/ This represents a total closure in this area.

c/ South of Cape Blanco there would be no recreational fishery; a loss of 38,000 angler trips compared to 1984. This would result in an estimated loss of $1,520,000 in recreational user value and $274,000 in charterboat gross revenues to this area.

d/ Assuming 90 percent of angler trips north of Point Delgada occur on private pleasure craft.

Table 21. Expected changes in recreational angler trips north of Cape Falcon under chinook/coho quota combinations.

Coho Quota	Season	Chinook Quota: 0	Chinook Quota: 10.3	Chinook Quota: 28.6	Chinook Quota: 45.8
0	All Species	-46,000	-46,000	-46,000	- 46,000
	Chinook Only	- 3,700	2,000	12,000	22,000
	Total	-49,700	-44,000	-34,000	- 24,000
50.2	All Species	-46,000	2,200	2,200	2,200
	Chinook Only	- 3,700	- 3,700	6,500	16,000
	Total	-49,700	- 1,500	8,700	18,200
254.3	All Species	-46,000	2,700	90,000	114,000
	Chinook Only	- 3,700	- 3,700	- 3,700	- 3,700
	Total	-49,700	- 1,000[a/]	86,300[a/]	110,300[a/]
334.7	All Species	-46,000	2,700	90,000	114,000
	Chinook Only	- 3,700	- 3,700	- 3,700	- 3,700
	Total	-49,700	- 1,000[a/]	86,300[a/]	110,300[a/]

a/ Total coho allocated not availabe for harvest.

Table 22. Expected changes in recreational user value north of Cape Falcon under chinook/coho quota combinations.

Coho Quota	Season	Chinook Quota: 0	Chinook Quota: 10.3	Chinook Quota: 28.6	Chinook Quota: 45.8
0	All Species	-$1,840,000	-$1,840,000	-$1,840,000	-$1,840,000
	Chinook Only	- 148,000	80,000	480,000	880,000
	Total	- 1,988,000	- 1,760,000	- 1,360,000	- 960,000
50.2	All Species	- 1,840,000	88,000	88,000	88,000
	Chinook Only	- 148,000	- 148,000	260,000	640,000
	Total	- 1,988,000	- 60,000	348,000	728,000
254.3	All Species	- 1,840,000	108,000	3,600,000	4,560,000
	Chinook Only	- 148,000	- 148,000	- 148,000	- 148,000
	Total	- 1,988,000	- 40,000	3,452,000	4,412,000
334.7	All Species	- 1,840,000	108,000	3,600,000	4,560,000
	Chinook Only	- 148,000	- 148,000	- 148,000	- 148,000
	Total	- 1,988,000	- 40,000	3,452,000	4,412,000

Table 23. Expected changes in gross charterboat revenue north of Cape Falcon under chinook/coho quota combinations.[a/]

Coho Quota	Season	Chinook Quota: 0	Chinook Quota: 10.3	Chinook Quota: 28.6	Chinook Quota: 45.8
0	All Species	-$ 966,000	-$966,000	-$ 966,000	-$ 966,000
	Chinook Only	- 78,000	42,000	252,000	462,000
	Total	- 1,044,000	- 924,000	- 714,000	- 504,000
50.2	All Species	- 968,000	46,000	46,000	46,000
	Chinook Only	- 78,000	- 78,000	137,000	336,000
	Total	- 1,044,000	- 32,000	183,000	382,000
254.3	All Species	- 968,000	57,000	1,890,000	2,394,000
	Chinook Only	- 78,000	- 78,000	- 78,000	- 78,000
	Total	- 1,044,000	- 21,000	1,812,000	2,316,000
534.7	All Species	- 968,000	57,000	1,890,000	2,394,000
	Chinook Only	- 78,000	- 78,000	- 78,000	- 78,000
	Total	- 1,044,000	- 21,000	1,812,000	2,316,000

a/ Assume 1984 charterboat: private craft angler trip ratio (50 percent total trips taken on charterboats).

in angler trips range from -49,700 to +110,000 under the most and least restrictive quota combinations. Quotas of at least 50,200 coho and 28,600 chinook are required before an increase in angler trips compared to 1984 can be expected. If allowable coho harvests are greater than zero, the only quota combinations which would allow May through June (chinook only) recreational opportunity would be 50,200 coho coupled with either 28,600 or 45,800 chinook.

Weekly fishing opportunity is distributed differently between the three options. Option 1 proposes weekly openings between Friday and Sunday while Options 2 and 3 allow recreational fishing between Sunday and Thursday. According to SPDT analysis either of these alternatives, assuming some effort redistribution, will reduce fishing effort per week by approximately 20 percent. Therefore, the time between initial opening and final closure of the season would be expected to be 20 percent longer than if fishing was allowed every day of the week. The impacts of the different fishing days scenarios may differ for private vessel and charterboat anglers. Information on the proportion of charterboat angler trips to private boat angler trips for the two fishing day options may be available by the April meeting.

Community Impacts

Estimating Impacts on Household Income Associated with Commercial and Recreational Salmon Ocean Fishing

Input-output (I/O) analysis[1/] is used to estimate the distributive impacts of a change in the economy of a region. Such changes might include starting or closing a manufacturing plant, or public policy changes in public resource management such as allowable harvest of public timber or availability of fish for harvest. In this case, it has been employed to examine the impact of the 1985 regulatory options.

The overall impact can be decomposed into direct, indirect, and induced impacts. Direct impacts result from an initial change (an increase or decrease in fish sold). The indirect income is the increase or decrease in personal income of dependent sectors (for example, an increase or decrease in gasoline sold). Then, the induced impacts occur as the general wage earners and businesses experience changes in their salaries and profits and consequently increase (or decrease) their personal expenditures. The sum of these direct, indirect, and induced effects is the total household income effect.

Information on the expenditures of the local businesses directly affected by the change is introduced into the I/O model to estimate the total impact on the local community. Through I/O analysis, estimates of the effect on total household income (salary and other income), total output (sales), r employment may be made. Because of the seasonality of employment in the

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1/ For this analysis, a software system called IMPLAN, developed by the U.S. Forest Service has been used to construct I/O models for any area from a secondary data set derived from the U.S. Department of Commerce, Bureau of Economic Analysis and other national sources.

fisheries industry, employment impacts are not shown. Changes in total output are usually not comparable; therefore, only local household income impacts are shown.

Estimation of Recreational Impacts

In the case of the recreational fisherman who purchases goods and services to take part in a fishing trip, the expenditures cause an increase in local economic activity. Such purchases are introduced into the model. Purchases of goods and services directly affect personal income (salaries plus proprietors income) to the extent that the goods or services are locally produced. For example, on the average, for every dollar spent on gasoline, $.21 is returned to the gasoline retailer for the services he provides. If the local area has no gasoline wholesaling or refining sector the remaining $.79 leaves the local area and creates no local income impact. The total local expenditures of $15.87 per recreation day in 1980 produces local economic income of $19.35 per angler day (1984 dollars) for northern Oregon coastal communities. The local economic income calculated for Washington and California was $40.00 and $25.67, respectively. (The differences in the states are mainly the amount of charterboat activity).

Estimation of Commercial Impact

Estimates of the economic impact of changes in commercial fishery outputs, were based on information gathered by a West Coast Fisheries Development Foundation project to establish a data base to predict economic changes related to changes in resource bases. (Preliminary information was provided by Hans Radtke, contractor.)

Budgets for troll fishing and salmon processing are used to estimate the expenditures related to fish harvesting and fish processing. These are synthesized budgets taken from discussions with fishermen and processors. They do not represent a scientifically drawn sample. To estimate impacts of policy changes, only changes in variable costs are valued.

For the harvesting sector, it is estimated that for every dollar of commercially harvested fish, $1.23 of local income is generated (based on the northern Oregon coast model).

For processors, the margin per pound between the purchased price and sales price remains fairly constant (about $.52 per pound including yield percentages). A fairly large portion of the margin ($.30 of the $.52) includes fixed costs and will not change when annual policy changes are made. The remaining $.22 will generate $.28 of local personal income for coastal communities per pound of fish harvested.

Estimates of local community impacts for the proposed policy options for 1985 are displayed in Tables 24 through 28. Commercial harvest-related impacts are shown in Tables 24 through 26. Recreational fishery-related impacts are presented in Table 27 and 28. The coefficients for the northern Oregon communities are used to estimate the impacts shown in these tables. Because of time constraints and technical difficulties, the coefficients for the remaining west coast counties were unavailable for this analysis. These coefficients are presently being computed and may change, depending on the size of the local communities. However, no changes greater than 20 percent

Table 24. Estimated change in local household income resulting from changes in troll harvests south of Cape Falcon.[a/]

	Chinook	Coho (A)[b/]	Coho (B)[c/]	Total (A)[d/]	Total (B)[e/]
Option 1					
South of Point Delgada	$ 100,000	-$240,000	-$216,000	-$ 140,000	-$ 116,000
Point Delgada-Cape Blanco	1,143,000	- 52,000	38,000	1,091,000	1,181,000
Cape Blanco-Cape Falcon	200,000	265,000	668,000	465,000	868,000
Option 2					
South of Point Delgada	$ 324,000	-$240,000	-$216,000	$ 84,000	$ 108,000
Point Delgada-Cape Blanco	243,000	- 52,000	38,000	191,000	281,000
Cape Blanco-Cape Falcon	85,000	265,000	668,000	350,000	753,000
Option 3					
South of Point Delgada	$ 37,000	-$240,000	-$216,000	-$ 203,000	-$ 179,000
Point Delgada-Cape Blanco	- 1,638,000	- 52,000	38,000	-1,690,000	- 1,600,000
Cape Blanco-Cape Falcon	35,000	265,000	668,000	270,000	703,000

a/ For purposes of projecting changes in household income by management area the following assumptions concerning the distribution of coho harvest south of Cape Falcon were made: (1) the ratio of Oregon to California catch was 88:12 based on the preseason allocation in 1983, (2) The distribution between north and south California fisheries was assumed to be the same as the 1979-1982 catch averages, i.e. 26 percent caught south of Point Delgada and 74 percent north of Point Delgada.

b/ This coho catch is based upon a total (sport and troll) OPI catch south of Cape Falcon of 225,000.

c/ This coho catch is based upon a total OPI catch south of Cape Falcon of 315,000.

d/ Total (A) equals the chinook-related impact plus the predicted coho impact based on a total OPI south of Cape Falcon catch of 225,000.

e/ Total (B) equals the chinook-related impact plus the predicted coho impact based on a total OPI south of Cape Falcon catch of 315,000.

Table 25. Estimated change in household income for communities resulting from expected changes in troll harvests north of Cape Falcon under chinook/coho quota combinations, assuming all salmon catches are distributed 50-50 between Grays Harbor and Columbia River catch areas.

Coho Quota	Chinook Quota: 0			Chinook Quota: 16.7			Chinook Quota: 46.4			Chinook Quota: 74.2		
	Coho	Chinook	Pink	Coho	Chinook	Pink	Coho	Chinook	Pink	Coho	Chinook	Pink
0	-$389,000	-$371,000	-	-$389,000	$91,000	-	-$389,000	$913,000	-	-$389,000	$1,682,000	-
	Total: -$760,000			Total: -$298,000			Total: $525,000			Total: $1,294,000		
24.3	-389,000	-371,000	-	-148,000	22,000	616,000	-148,000	844,000	616,000	-148,000	1,613,000	616,000
	Total: -$760,000			Total: $490,000			Total: $1,312,000			Total: $2,081,000		
125.6	-389,000	-371,000	-	623,000	-37,000	1,146,000	892,000	811,000	1,152,000	892,000	1,606,000	828,000
	Total: -$760,000			Total: $1,732,000			Total: $2,855,000			Total: $3,326,000		
165.3	-389,000	-371,000	-	623,000	-37,000	1,146,000	1,303,000	811,000	1,161,000	1,303,000	1,606,000	1,161,000
	Total: -$760,000			Total: $1,732,000			Total: $3,275,000			Total: $4,070,000		

Table 26. Estimated change in household income for communities resulting from expected changes in troll harvests north of Cape Falcon under chinook/coho quota combinations, assuming all salmon catches are distributed 50-50 between Grays Harbor and Quillayute catch areas.

Coho Quota	Chinook Quota: 0			Chinook Quota: 16.7			Chinook Quota: 46.4			Chinook Quota: 74.2		
	Coho	Chinook	Pink	Coho	Chinook	Pink	Coho	Chinook	Pink	Coho	Chinook	Pink
0	-$389,000	-$371,000	-	-$389,000	$91,000	-	-$389,000	$913,000	-	-$389,000	$1,682,000	-
	Total: -$760,000			Total: -$298,000			Total: $525,000			Total: $1,294,000		
24.3	-389,000	-371,000	-	-148,000	22,000	616,000	-148,000	844,000	616,000	-148,000	1,613,000	616,000
	Total: -$760,000			Total: $490,000			Total: $1,312,000			Total: $2,081,000		
125.6	-389,000	-371,000	-	414,000	-37,000	1,165,000	892,000	811,000	1,205,000	892,000	1,606,000	1,205,000
	Total: -$760,000			Total: $ 1,542,000			Total: $2,908,000			Total: $1,293,000		
165.3	-389,000	-371,000	-	414,000	-37,000	1,165,000	1,303,000	811,000	1,204,000	1,303,000	1,606,000	1,240,000
	Total: -$760,000			Total: $1,542,000			Total: $3,354,000			Total: $4,149,000		

Table 27. Estimated change in household income resulting from expected angler expenditures under three regulatory options south of Cape Falcon compared to 1984.

	Change in Household Income
Option 1	
California	
South of Cape Vizcaino	$ 98,000
Cape Vizcaino-border	175,000
Oregon	
South of Cape Falcon	1,355,000
Option 2	
California	
South of Point Delgada	98,000
North of Point Delgada	92,000
Oregon	
South of Cape Falcon	1,548,000
Option 3	
California	
South of Point Delgada	5,700
North of Point Delgada; CA	-1,052,000[a/]
Oregon	
South of Cape Falcon	1,935,000[b/]

a/ This represents a total closure in this area.

b/ South of Cape Blanco there would be no recreational fishery; a loss of $735,000 in local household income compared to 1984 would be anticipated.

Table 28. Expected changes in household income resulting from expected angler expenditures north of Cape Falcon under chinook/coho quota combinations.

Coho Quota	Chinook Quota = 0	Chinook Quota = 10.3	Chinook Quota = 28.6	Chinook Quota = 45.8
0	-$1,824,000	-$1,615,000	-$1,248,000	-$881,000
50.2	- 1,824,000	55,000	319,000	668,000
254.3	- 1,824,000	37,000	3,167,000	4,048,000
334.7	- 1,824,000	37,000	3,167,000	4,048,000

for any management area are anticipated. A revised analysis of the impacts using more representative coefficients will be provided at the time of the April Council meeting.

APPENDIX A

BARBLESS HOOKS STUDY IN CALIFORNIA

SALMON CHARTERBOAT FISHERY

by

Ocean Salmon Project

California Department of Fish and Game

SUMMARY OF

BARBLESS HOOKS STUDY IN CALIFORNIA SALMON CHARTERBOAT FISHERY

by

Ocean Salmon Project
California Department of Fish and Game [1/]

California conducted a barbless hook study in 1984 on charterboats in the San Francisco and Eureka areas. This study was in response to the barbless hooks only regulation in 1984 recreational fisheries in the PFMC management area.

Test fishing off San Francisco took place throughout the season (February 18-November 18) and off Eureka between July 17 and August 8. Anglers used comparable numbers of single-point barbless and barbed hooks on study days. Convention barbed hooks were made barbless by pinching the barbs flat using a pa of pliers.

Chinook and coho catches during the study totaled 1,391 and 108 fish, respectively. Average lengths of chinook caught on barbless and barbed hooks were identical at 20.6 inches, fork length. Average length of coho caught on barbless and barbed hooks were 25.2 inches and 25.6 inches, fork length, respectively. Average length difference for coho was not statistically significant.

Catch rates using barbless and barbed hooks for the two species also were not significantly different. Chinook catches totaled 679 (49%) on barbed hooks and 712 (51%) on barbless hooks. Coho catches totaled 53 (49%) on barbed hooks and 55 (51%) on barbless hooks.

Observations by samplers indicated barbless hooks caused less physical damage to sublegal salmon (under 20 inches, total length) than barbed hooks. No data, however, were collected on relative survival rates of released fish.

It was believed important that the boat continued moving forward after a salmon was hooked in order for barbless hooks to be comparable to barbed hooks in landing a hooked fish. If constant tension is not maintained on the hooked fish, chances of the fish unhooking itself probably increase.

Coho sample size was very small in the study, and additional study for this species is recommended.

[1/] Prepared, February 1, 1985.

UNITED FISHERMEN OF ALASKA

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(907) 586-2820

Cass M. Parsons
Executive Director

TESTIMONY
ON
SB 37 & HB 235

Most of the board of fisheries decisions are allocative in nature; that is, they decide who gets to catch how many fish. When seasons are set, they are restricted for two reasons; to allow an adequate number of fish to escape and to allow an adequate number of fish to be caught by the next group up the line. About 90-95% of all the board of fisheries proposals deal with allocating fish between one user group and another by setting season's lengths, opening times, mesh size, and so on.

Major allocation battles between user groups are being conducted at almost every board meeting. The one you are probably most familiar with are the east side setnetters in Cook Inlet vs. the sportsman on the Kenai and Kasilof rivers. However, most allocation disagreements are not between commercial and sports groups, but among the commercial groups themselves. Each of these groups compile information that proves some economic, social or historic right to the resource. The board must take each of these arguments into consideration to make a fair decision.

Senate Bill 37 and House Bill 235, while an admirable attempt by the sponsors to assist the board make allocation decisions, calls for establishing "restrictions and limitations on and priorities for the use of the fishery resources" only on the basis of economical impacts on the communities and user groups. The board of fisheries needs more flexibility in order to weigh the many other important factors of the fishery as well.

If the board could boil allocation decisions down to a simple formula of who brings in most money to the state or to the communities, life for board members and fishermen would indeed be simple. Unfortunately, the fair decisions which make "best use" of the state's resources are not so simple.

If the legislature chooses to become involved in board of fisheries decisions, we would hope that your involvement would come more in the form of a resolution directing the board of fisheries to establish guidelines for making allocative decisions, rather than setting those criteria in statute.

I have attached a resolution passed by the UFA last year which requests funds for the board of fisheries for a resource economist to assist the board assess socio-economic data. As you can see, the UFA board has been interested in helping resolve allocation disputes for quite some time.

Cross Prasno for

April 17, 1985

Bob Blake
President, UFA

UNITED FISHERMEN OF ALASKA

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Cass M. Parsons
Executive Director

ANALYSIS OF SB37 & HB 235

1) Reallocation may be what the sponsor intends, because every fish is "allocated" for escapement and to user groups.

2) If reallocation is what is intended, then SB 37 line 24 first page, says that reallocation only takes place when there is a need to conserve or develop the resource; i.e., to cut back allocations and hence provide more for escapement or when more fish are made available - say from hatheries. The flexibility is not there to allow the board to reallocate in response to increased economic or social pressures alone.

3) Then, if reallocation is desired, the reallocation is made on the basis of the economic impact on the fishing group or the communities and if there are alternative fish available to provide to the group getting fish taken away from them.

4) Again, if reallocation is the word that is intended by the sponsor, Section C says that the board can only reallocate to prevent jeopardy to the maintenance of fish stocks on a sustained-yield basis.

If the sponsor intends to say "allocation" then the bill is a "make-work" program since every fish is allocated for escapement and for user groups. All fisheries in Alaska are "limited" or restricted so they do not endanger escapement levels of the stock, therefore, the board would have to state this on every management decision, creating huge amounts of senseless paperwork.

In summary, if allocation is the word the sponsor intends, the bill will require vast amounts of economic data to be compiled, most of which is unnecessary as there are many fisheries where no allocation disputes occur. If reallocation - taking fish from one group and giving to another - is the word intended, the legislation does not allow reallocation to occur unless the sustained yield of the stock is in jeopardy or there are more fish made available through surplus hatchery fish.

UNITED FISHERMEN OF ALASKA

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Cass M. Parsons
Executive Director

RESOLUTION NO. 6

WHEREAS commercially harvested fishery resources are a major factor in Alaska's economy, employing the largest number of Alaskans in a non-government industry; and

WHEREAS the Alaska Board of Fisheries is charged with regulatory authority over the state's fishery resources; and

WHEREAS decisions by the Board must be based not only on the biological well-being of the resource but also have far-reaching economic consequences; and

WHEREAS regulatory decisions by the Board must be based on the best available biological and statistical information and also on reasonable standards and criteria related to social and economic considerations; and

WHEREAS no staff expertise and analysis of the complex social and economic aspects of regulatory decisions have been made available to the Board.

THEREFORE BE IT RESOLVED that the UFA strongly urge the Governor and the Legislature to create a staff position of resource economist to provide the Board of Fisheries with pertinent social and economic resource data in order that their decisions may be based on documented information pertinent to the complex nature of regulating and allocating fisheries resources.

Cass M. Parsons
UFA Executive Director

Date: 1-30-84

IN THE SENATE BY P.FISCHER

SENATE BILL NO. 37

IN THE LEGISLATURE OF THE STATE OF ALASKA

FOURTEENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act relating to management plans and regulations adopted by the Board of Fisheries."

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

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

Sec. 16.05.252. ADOPTION OF MANAGEMENT PLANS AND REGULATIONS. (a) Unless it would be inconsistent with the requirements of AS 16.-05.251(b), a management plan or regulation adopted by the Board of Fisheries shall

(1) be designed primarily to achieve the maximum sustainable yield of the fishery resources addressed in the plan or regulation;

(2) be based on the best scientific information available from public and private sources; and

(3) minimize costs to the state and user groups of administering the plan and avoid unnecessary duplication.

(b) Except for regulations adopted under AS 16.05.251(b), if the Board of Fisheries determines that a regulation or management plan must include the allocation of fishery resources among different user groups in order to conserve or develop the fishery resources, the board shall establish restrictions and limitations on and priorities for the use of the fishery resources on the basis of the following factors:

(1) the effect on the affected user group, including economic loss, if any, that may occur as a result of the limitation or

STATE OF ALASKA
THE LEGISLATURE

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May, 1986

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Jeanie Henry

Senate Resources Committee 4/17/1985, 1:10pm

SENATE RESOURCES COMMITTEE OBSERVER/WITNESS SIGN-UP SHEET

DATE: 4-17-85 SPONSOR:

SUBJECT(S): SB 37; HB 229

NAME	REPRESENTING	ADDRESS	PHONE		Witness	HERRING	STRIPPING
Steve Pennoyer	Fish & Game	Box 3-2000 Juneau	465-4100		HB 229		
Beth Stewart	Fish & Game		465-4110		SB 37		OK
John Garner	Self - Member AK Bd of Fish	Box 4148 Juneau	586-9570				OK
Bob Blake	VFA • CDFU	Box 94 Cordova	424-3652		HB 229 SB 37 OK		OK
Janet Fries	Rep. Hermann	Pouch V	-4942		HB 229		OK
Reed Staples							OK