

U.S. Fish and Wildlife Service  
Klamath Field Office  
1312 Fairlane Road  
Yreka, CA 96097

Tel. 916/842-5763

March 17, 1989

TO: Klamath Fisheries Management Council Members  
FROM: Ron Iverson  
SUBJECT: Draft Management Council notes for February 22, 1989 meeting

Enclosed for your review are minutes of the Eureka meeting of February 22, 1989, along with several attachments. I have followed each motion passed, assignmet made, or other decision point with a line of asterisks.

# DRAFT

## KLAMATH FISHERY MANAGEMENT COUNCIL

PROCEEDINGS OF THE MEETING HELD 22 FEBRUARY 1989

EUREKA, CALIFORNIA

Chairman Fullerton convened the meeting at 9:10 p.m., with a quorum present (see roster, Attachment 1). The meeting agenda (Attachment 2) was approved, with review of the minutes of the last meeting deferred until next meeting.

### Report of the Technical Advisory Team

1989 ocean stock size projections Chairman Scott Boley distributed Attachment 3, indicating a 1989 projected ocean stock size for Klamath chinook somewhat larger than the preseason projection for 1988. Confidence interval for the point estimate for age 3 stock size is very wide, but the estimate for age 4 stock size, predicted with more confidence, indicates a relatively high ocean abundance. The ocean stock size of Sacramento chinook is predicted to remain high - at about the average of the last three years - while the Rogue chinook stock is predicted to decline to about the 10 - year average, or about 50-60% of the 1988 level. Confidence in predictions of these two stocks is low. For the Sacramento, the best correlation seems to be with pounds of hatchery production. The 1988 Rogue chinook run was >60% 4s, with jacks scarce...so both 3s and 4s are expected to be less abundant in 1989.

The Tech Team was asked to label the data points in the two figures of Attachment 3 by year, and Scott said this would be done.

\*\*\*\*\*

1988 fall fisheries took 2568 Klamath chinook after 1 September 1988, which will be accounted as part of the 1989 harvest. The Eel River special ocean fishery took 1770 Klamath chinook...9.5% of the total harvest of 18,600 chinook.

The page of Attachment 3 labeled "Appendix A" shows that stock size of both age groups has been underpredicted for the past three years...but Scott said the KGHM model would have overpredicted stock size in the previous four years.

Allowable harvest rate combinations are displayed in the next to last page of Attachment 3. These calculations by L.B. Boydston indicate that the .325/.525 harvest allocation of the Five-Year Agreement are too high to preserve natural chinook stocks.

Scott explained the significance of these figures using an example of a .39 ocean/.38 inriver harvest rate, applied to "fully vulnerable" 4s and 5s: An ocean catch of 39 of 100 4s leaves 61 unharvested; of these, 7 will remain in the sea to become 5s; 54 will return to the river. A .38 inriver harvest rate takes 21 fish, leaving 33 as spawning escapement. The total harvest rate for 4s and 5s = catch/catch + escapement = 60/60+33 = .65, which meets the PFMC guideline.

The last page of Attachment 3 indicates that total estimated harvest rate of four-year-old Klamath chinook has averaged .68 over the last three years. Ocean harvests have exceeded the Five-Year Agreement while inriver harvest has fallen short, the combined harvest falling pretty close to target. These estimates of ocean harvest rate have wide confidence intervals.

Comments

o Q: Has Tech Team found any ways to improve stock projections?

A: Team looked at catch/unit of effort as an abundance indicator...there appeared to be a correlation between cpue and Klamath stock size in the Fort Bragg fishery, but data points have a wide scatter. This variable is worth looking at further, but probably can't be used for 1989 stock prediction.

o Most of the variation in stock size prediction for Klamath chinook can be accounted for by the three-year-old component, which has less impact on inriver run size.

o Regarding alleged overescapement of Klamath chinook in recent years, this seems true of some tributary stocks, not others.

o Total harvest rates were high in 1983 and 1984, yet progeny of those runs made up part of the very large stocks of recent years.

o The Tech Team has looked at catch of non-Klamath stocks foregone at various ocean harvest rates. That information will be provided later.

\*\*\*\*\*

Council discussion of harvest allocation

Masten Sue provided a handout stating concerns of non-Hoopa Indian people, including:

o Yuroks desire to maintain the economic benefits they have recently received from an expanded net fishery

o Economic problems of ports and day boat trollers in the KMZ are a concern

o Adequate spawning escapement must be maintained

o Indian netters expected a compromise allocation of about 30% of the total fall chinook harvest in early years of the Five-year Agreement, but their share has remained around 15%.

o The ODFW proposal of .38/.39 inriver/ocean harvest rates would cost Indians too much income...not acceptable.

o Sue's proposal is to retain the harvest allocation established in the Five-year Agreement, and to request PFMC to regulate Fort Bragg and Coos Bay fisheries to prevent continued overharvest.

Marshall

o The Hoopa proposal presented earlier to the harvest allocation committee still stands. It was an attempt to provide adequate season and harvest in the KMZ, while holding to the harvest allocation formula of the Five-year agreement.

o Regarding the ODFW strawman, it appears to ignore the six-month effort of the harvest allocation committee...I am concerned about the proposed change in harvest allocation, substitution of other stocks for fall chinook...and the lack of any specifics on how the ocean harvest rate target would be enforced. How do we know that spring chinook will be available to be harvested? How do we know that natural stocks of spring chinook wouldn't be impacted? If an ocean harvest rate target of .325 has resulted in an actual harvest rate of .50, what will a target of .38 result in? ODFW proposal, moreover, lacks a mechanism for shifting effort into the KMZ...and for giving KMZ boats more of a chance, which the Hoopa proposal tried to do with trip limits.

o Responses (Fullerton): Regarding concerns about enforcement of an ocean harvest rate target, I believe PFMC will insist on some kind of redlining measures to prevent the ocean harvest from running away.

o The Klamath Council, individually and collectively, should tell the Bureau of Reclamation that we are concerned about maintaining Trinity River flows, and about restoring depleted reservoirs of water.

Martin

o Responding to Lyle Marshall, my proposal was only a response to a perceived request from user groups for help from agencies...not an attempt to ignore the harvest allocation committee.

o I am listening for comments on my proposal presented at the last meeting...would like to hear specific problems with it, such as the economic impact on inriver fisheries, or the concern about control of ocean fisheries in outside areas. We can then concentrate efforts on solving those problems, and move toward consensus.

Bingham

o Our proposal for seasonal management is still on the table...It places less reliance on preseason stock size predictions, which are shown, in recent material provided by the Tech Team, to be extremely unreliable, even for four-year-old chinook.

o Trollers are willing to negotiate harvest allocation between the KMZ and outside areas in this forum, and we can even talk about harvest numbers in each of these areas, but splitting numbers won't have much effect on actual ocean harvests.

o We feel the last page of the Tech Team handout (Att. 3) shows that large spawning escapements of recent years are not needed.

o Comments/responses (Martin): Are you saying we should look at the data from most recent three years, figure out what kind of seasonal management structure would produce the desired ocean harvest rate, and impose that kind of seasonal management? Ocean harvest rate on Klamath chinook has been below 45% only once in recent years...so are you saying that ocean harvest rates of .45-.55 or so are appropriate?

(Bingham): Yes and yes, except: we don't have a recent record of seasonal management in the KMZ to rely on, and we don't want the .5 ocean harvest to come at the expense of inriver harvest, which should be sustained at current levels.

(Martin): If you are defending the "status quo" of the past several years, this means an overall chinook harvest rate of not much over .65, and an inriver harvest share of about .15-.2 of total harvest.

(Bostwick): When you seek to maintain current harvest levels by seasonal management, how would you propose this to work in the KMZ?

(Bingham): We would use KMZ seasons of the late 1970s.

(Bostwick): But we have much larger terminal fisheries now than at that time.

(Bingham): Yes, and we don't want to see those reduced. The reduction should come in the excessive escapements of recent years.

(Reed): Would trollers consider significant shifts within the ocean fishery, such as a much longer KMZ season at the expense of outside fisheries?

(Bingham): We would consider such things, after we know what the ocean harvest allocation will be.

(Reed): Do we know what kinds of redlining measures PFMC might use to hold total harvest to .65? Given the wide confidence intervals around abundance estimates, would PFMC allow some flexibility around the .65 harvest target?

(Fullerton): PFMC is expecting guidance from the Klamath Council on this...but if we give them nothing, I expect they will proceed on their own to impose constraints. On flexibility, PFMC would look to the Klamath Council for guidance as to how rigid management measures might be. They would consider a total harvest rate goal of over .65, if there were scientific evidence that this management change would contribute to the goal of restoring Klamath chinook stocks.

The Council then adjourned for private discussion of harvest allocation options. Chairman Fullerton reconvened the group and asked for results of caucuses:

Bingham Following are some highlights of troller's position on 1989 management:

- o A total chinook harvest rate of about 70% is probably justified
- o Inriver harvests should not be reduced below those of 1988
- o Given that about 1/2 of spring chinook and 1/4 of fall chinook escapement failed to spawn successfully in 1988, we need an inseason adjuster for the inriver fishery...perhaps the catch/unit effort in the Fort Bragg ocean fishery could be used.
- o We are concerned about disagreements within the Tech Team over methods of estimating abundance of 4s.
- o Target harvest rate should take into account the year-to-year variation in environmental conditions for spawning and rearing.
- o Responses Boley: Let's not make too much of differences in estimates...our predictive method is the best available.

Masten

- o We want to see how the ocean harvest rate target will be monitored and enforced. When mechanisms are proposed, we can evaluate them.
- o We feel the proposal to substitute spring for fall chinook in our fishery needs more study...we propose a study of the status of natural stocks of spring chinook.

Reed I would like to propose the following for 1989 management:

- o Keep the inriver quota the same as for 1988
- o Keep the target for total harvest at .65, but build in flexibility that will err more in the direction of greater ocean harvest...given that stock abundance seems a little greater than in 1988.
- o Institute seasonal management in all ocean areas, with appropriate dampening measures to restrain ocean catch
- o Comments/responses

(Martin): I don't think the .65 target can be met with seasonal management alone...fishing power of troll fleet is too great...consider KMZ experience in 1988. PFMC will ask us what we would propose to do if the troll fleet again catches 60,000 chinook in three days in the KMZ.

(Bingham): 1988 is not representative, because of the distorted pattern of fishing effort brought about by quotas. Let's look at the database from when we had coastwide seasons, and base our seasonal management on that. We need dampeners and monitoring tools...let's consider the catch/effort proposal of Bob Hayden. Regarding Lisle's proposal to hold

to .65, we feel a .7 harvest rate is justified given drought conditions in Klamath basin. The difference in harvest between .65 and .7 should go to the ocean fishery. We feel the Framework Plan Amendment has flexibility to allow a .7 harvest rate. Given this looks like a year of fair abundance, let's make sure no fishery is reduced in 1989.

(Masten): This proposal begins to look like another case of the inriver fisheries not getting a fair share in a year of abundance.

(Reed): No, this year should be different, because the PFMC commitment to harvest rate management should cause them to go further in limiting ocean harvest...so big ocean harvest overruns are less likely than before.

(Marshall): The Hoopa proposal included trip limits. Given that agency people seem to feel we need more dampening measures than we had last year in order to meet the harvest rate target, we still suggest that trip limits be considered.

(Martin): In 1988, constraints on the Coos Bay troll fishery were effective. If the Fort Bragg fishery had been dampened as much, we probably would have met the .65 harvest rate target. I propose the Tech Team look at the feasibility of imposing coastwide dampening measures similar to those imposed in Coos Bay last year. If the Tech Team finds that this would be effective in dampening harvest, and if the troll industry accepts this balanced dampening, I think we would be close to an agreement for 1989 management.

(Bingham): I don't want to talk about allocation between ocean areas until we agree on a total harvest rate...and we don't think .65 is acceptable.

(Martin): Okay, let's modify Reed's proposal into two options: (1) Given no reduction in inriver harvest, and given 1989 ocean stock size as projected, if we apply Coos Bay - type dampeners coastwide, would this yield the desired .65 harvest rate? (2) If an increase in harvest rate to .7 can be scientifically justified, how would the resulting increase in harvest be allocated? Let's work this out as much as possible within the Klamath Council...bump as few decisions as possible up to PFMC.

(Fullerton): As we go to lunch, can we agree that the options Jim has presented are the ones we want to pursue? (Appears to be consensus on this). Council adjourned for lunch.

Following material was displayed by Jim Martin:

#### PFMC PROCESS

27 February - Advisors briefing... Portland

7-9 March - PFMC sets range of management options...San Francisco

Late March - Public hearings on management options

4-7 April - PFMC sets final 1989 salmon seasons/regulations...Portland

KFMC goal: Agree to 1989 management plan which preserves escapement and balances the burden and benefits of conservation

Obstacles:

1. Uncertainty in stock prediction
2. Possibility of significant economic loss
3. Uncertainty of using spring chinook and coho to meet inriver fishing needs
4. Concern about enforcement of ocean harvest levels by PFMC

After reconvening, the Council debated how specific their recommendations to PFMC should be. On the one hand there was argument that the generalities provided last year by the Klamath Council were not useful, and that specific dampening measures need to be discussed so it can be determined which ones are acceptable to users and agencies. On the other hand, it was argued that the Klamath Council should leave some issues to be negotiated at PFMC. This argument was not resolved.

Chairman Fullerton asked for consensus that the KFMC proposals to PFMC will be for 1989 only. There was no dissent on this. Jim Martin commented that 1989 should be a fairly easy year to plan for, with relatively abundant fish and no major shift up or down in abundance. The Council and Tech Team should use 1989 as a planning period to look at what to do in cases of low, average, or high abundance of Klamath and other chinook stocks.

Martin suggested the Tech Team model several of the options proposed to date, to estimate what that option would yield in ocean and inriver harvest - given 1989 stock projections - and what constraints would have to be imposed. Fullerton said several options could be provided to PFMC for discussion at public meetings, and the Klamath Council could select a preferred option in the interim between the March and April PFMC meetings.

#### Options for Tech Team analysis

- o Martin asked that the ODFW strawman be analyzed
- o Masten asked that the .525/.325 allocation be modeled for 1989
- o Bingham asked that the Team determine how a "greenline" might be used for in-season liberalizing of regulations...for example, if catch/effort indicated unexpectedly abundant stocks
- o Martin asked that Lisle Reed's proposal be analyzed for .65 and .7 harvest rates, with specific dampeners identified. Reed asked that the additional option of reducing inriver harvest by 10,000 fish below the 1988 level be examined.

Bob Hayden asked the Tech Team to undertake two more assignments: The use of catch/effort as an inseason indicator of abundance, and a recalculation of the age 2 inriver/age 3 ocean regression function to include only the immediate past three years, when stock rebuilding has been successful. Scott Boley agreed the Team would look into the first issue, but said they could not have findings ready in time to apply to 1989. Regarding the regression calculation, it was argued there is no biological basis for restricting the relationship to the past three years, and a regression for only three values of the independent variable is weak.

Approval of Minutes A motion was made to approve minutes of the last meeting, with addition of missing letters from ports of Brookings and Gold Beach. The motion failed, and minutes will be considered at the next meeting.

#### Public Comment

Following are some comments made/issues raised by members of the public:

- o KFMC is accountable for the waste of fish represented by overescapement seen in the Klamath in recent years
- o Underprediction of stock size by biologists has resulted in large economic losses to ocean and inriver fisheries, in the form of harvest forgone.
- o There is no justification for the 35% escapement rate goal...the Tech Team should look into other variables besides escapement that may affect stock productivity, such as spring flows.
- o The Tech Team has erroneously insisted on numerical management and quotas...seasonal management should be instituted in the KMZ.
- o The so-called overharvest in the Fort Bragg fishery may be due in part to more than 100 boats from KMZ ports being forced to fish to the south by KMZ closure.
- o The one-fish bag limit imposed mid-season in the KMZ sport fishery was ruinous for charterboat operators.
- o The Five-year Agreement has finally brought some economic prosperity to the lower Klamath River communities...don't take this away.
- o KMZ ports need to get the commercial fishery restored, and a full-season sport salmon fishery.
- o Concerned that fall chinook run is being managed without considering other stocks...spring and fall chinook are probably already mixed in fisheries, since they can't be distinguished.
- o Concerned about reducing spawning escapements to match reduced stream flows...this could lead to weakened arguments for fish flows in Trinity.
- o Indian groups have worked on habitat restoration projects, willingly provided harvest data, held to harvest quotas...so should be treated fairly.

Discussion of next meeting

Concern was expressed about giving the Tech Team time to do their work, while having something to provide the Salmon Subpanel by March 6. It was decided to meet just before the Subpanel - at 6:30 p.m on the evening of March 5 - with the option of reconvening the next day. Jim Martin suggested that Klamath Council members be available through the Subpanel and PFMC meetings to have an influence on the treatment of Klamath options.

Scott Boley asked that options to be analyzed be given to him in writing. The Tech Team will meet prior to the Klamath Council meeting.

New Business Lisle Reed announced he will submit his resignation, but will propose to remain on the Council through March.

Meeting adjourned by acting Chair Lisle Reed.

ATTACHMENT 1

KLAMATH FISHERY MANAGEMENT COUNCIL

Attendance Roster, February 22, 1989 meeting.

Management Council Members

Nat Bingham	California Commercial salmon fishing industry
Virginia Bostwick	In-river sport fishing community
E.C. Fullerton	National Marine Fisheries Service
Robert Hayden	Offshore recreational fishing industry
Lyle Marshall	Hoopa Indian Tribe
James Martin	Oregon Department of Fish and Wildlife
Susan Masten	Non-Hoopa Indians residing in Klamath area
Lisle Reed	Department of Interior
Keith Wilkinson	Oregon commercial salmon fishing industry

Not in attendance: Richard Schwarz (Pacific Fishery Management Council)

Others Attending

Richard Taylor	Janet Butrick
Douglas Parkinson	Mel Brooks
R. Haberman	Lavina Bawers
Eugene Lewis	Mollie Reuid
Jeff Feldner	Gene/Connie Elmer
Noreen Jones	Marvin Matz
Harold Jones	Vivian Simpson
Michael Matson	W. Short
Del Robinson	Jared Williams
Walter Lara	Barney Dolan
Terry Brown	Peter Lawson
Bruce Taylor	Karole Overberg
Jack Alderson	David O'Neill
Dorothy Haberman	Rodney Vigil
Gene Schnell	W.L. Duncan
Paul Tae	Donna Marlus
L. Sundberg	Gerald Sanderson
Randy Matty	David Mathy
Mike Morford	Steve Suagee
Maurice Vinod	Richard Taya
Jean Perry	Fred Stutsman
Tina Webster	Richard Miller
Dave Bitts	

ATTACHMENT 2

KLAMATH FISHERY MANAGEMENT COUNCIL

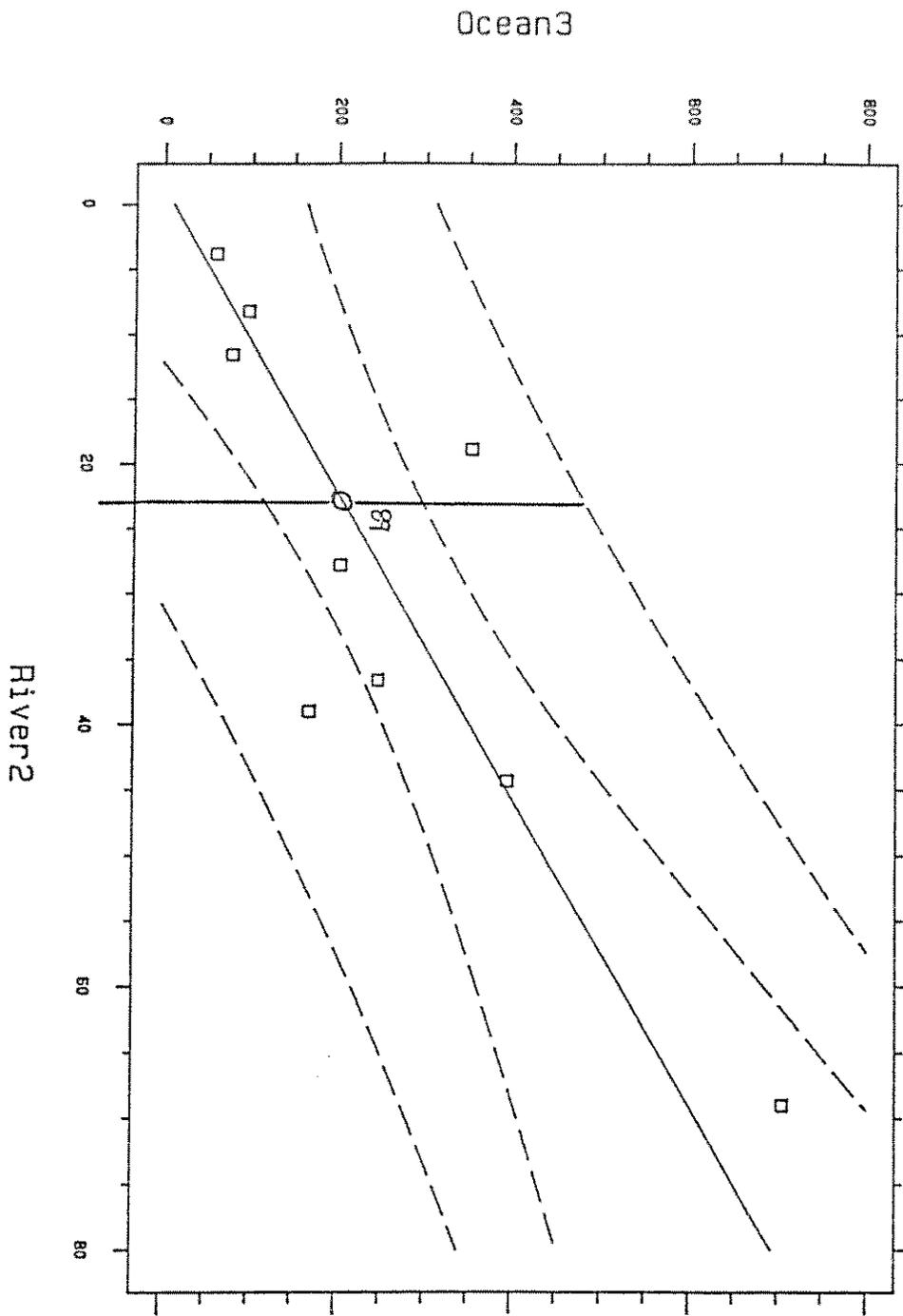
MEETING AGENDA

February 22, 1989

8:00 a.m.	Call to order
8:10	Correction and approval of agenda, distribution of minutes from last meeting
8:20	Discussion of ocean management/harvest allocation options
9:30	Break
9:45	Options discussion (continued)
12:00	Lunch
1:15 p.m.	Options discussion (continued)
2:30	Break
2:45	Council action on recommendations to Pacific Fishery Management Council
3:30	Other old business
3:45	New business
4:00	Public comment
4:30	Discussion of next meeting
4:45	Adjourn

1989 Age 3 = 206,200

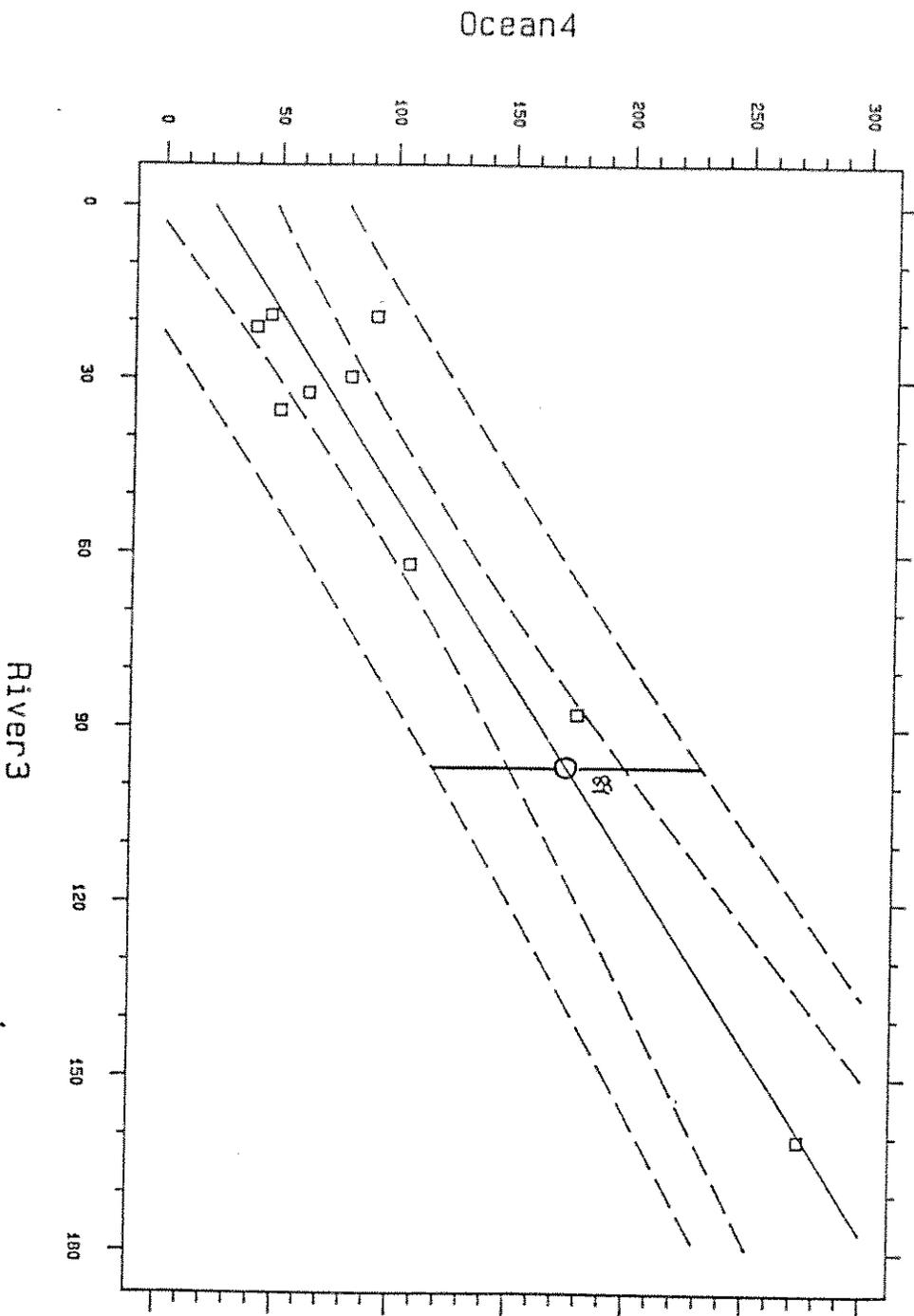
Regression of Ocean3 on River2  
95 % Confidence Limits



1989 Age 4 = 172, 400

(Age 5 = 8,100)\* (not shown)

Regression of Ocean4 on River3  
95 % Confidence Limits



Appendix A. Comparisons of Pre- and Post-season Ocean Abundance Estimates for Ages 3 and 4 Klamath River Fall Chinook, 1985-1988 Seasons

Age	Season	Preseason estimate	Postseason estimate	Pre/post
3	1985	56,500	96,500	0.59
	1986	213,000 a/	704,900	0.30
	1987	255,900	394,000	0.65
	1988	185,400	(351,900) b/	(0.53) b/
				Average 0.52
4	1985	45,500	39,400	1.15
	1986	53,000	62,700	0.85
	1987	164,900	272,900	0.60
	1988	149,100	178,200	0.84
				Average 0.86

a/ 75 percent jack count adjustment applied because most of jacks were in the Trinity River. Also, the basin jack count was outside the database.

b/ This is a very preliminary estimate as the cohort has not nearly completed its life cycle.

Klamath River Technical  
Advisory Team

November 14, 1988

From: L. B.

Allowable Harvest Rate Combinations in 0.01 Ocean Harvest Rate  
Increments.

I have run the harvest rate model to determine subject. Based on  
this run, the July 1987 harvest rate agreement overfishes the  
stock.

How we got into this situation, as I recall, was as follows:

- 1) the original negotiations were based on 5 point  
increments,
- 2) the users settled on harvest rates between two  
5 point increments.

They assumed--and we did not correct them--that the 5 point  
increments were exact on either side of the schedule and that the  
ocean and inriver harvest rates are additive. The following table  
dispells both presumptions.

<u>Ocean</u>	<u>Inriver</u>	<u>Ocean</u>	<u>Inriver</u>
0.57	0.00	0.38	0.39
0.56	0.03	0.37	0.41
0.55	0.06	0.36	0.42
0.54	0.08	0.35	0.42
0.53	0.11	0.34	0.45
0.52	0.13	0.33	0.46
0.51	0.15	0.32*	0.48
0.50	0.18	0.31	0.49
0.49	0.20	0.30	0.50
0.48	0.22	0.29	0.51
0.47	0.24	0.28	0.52*
0.46	0.26	0.27	0.54
0.45	0.28	0.26	0.55
0.44	0.30	0.25	0.56
0.43	0.31	0.24	0.57
0.42	0.33	0.23	0.58
0.41	0.35	0.22	0.59
0.40	0.36	0.21	0.60
0.39	0.38	0.20	0.61

\* denotes July 1987 agreement.

HARVEST AND ESCAPEMENT OF KLAMATH FALL CHINOOK AT AGE 4  
(in thousands of fish)

Year	Initial population	Ocean 1/ impact	River 2/ impact	3/ ESC	4/ rate	5/ rate	Ocean harvest rate	River harvest rate
1980	91.5	68.6	8.8	11.4	85		75%	10%
1981	45.6	30.1	9.6	4.2	87		66%	21%
1982	106.7	69.4	13.7	19.5	78		65%	13%
1983	80.8	57.4	5.5	15.0	78		71%	29%
1984	50.1	23.5	13.5	10.1	74		47%	27%
1985	39.4	11.0	7.3	17.9	46		28%	18%
1986	62.7	29.5	9.9	19.5	63		47%	16%
1987	272.9	150.1	46.2	63.7	72		55%	17%
1988	178.2	85.5	37.1	44.7	69		48%	21%

1/ Source: Stock projection report, ocean population.

2/ Stock projection x ocean harvest rate.

3/ Based on inriver age composition and catch adjusted for net selectivity at age 3.

4/ Inriver age 4 estimate - inriver impacts.

5/ Ocean impacts + river impacts divided by initial population.