

Dr. Don McIsaac, Executive Director
Pacific Fishery Management Council



State of California - The Resources Agency
DEPARTMENT OF FISH AND GAME
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GRAY DAVIS, Governor



March 26, 2002

VIA FACSIMILE / U.S. MAIL

MAR 27 2002

Dr. Don McIsaac, Executive Director
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, Oregon 97220-1384

Re: California Concerns Regarding Estimated Coho Impacts off California

Dear Mr. McIsaac:

I would appreciate your distributing this letter to the Council Members for discussion at our April Meeting. This is in follow-up the concerns that I expressed at the March meeting. In the following I would like to address this subject and provide a recommendation about how to proceed with adopting commercial fishing regulations off California for 2002.

My concerns relate to 1) the commercial fishing effort estimates generated by the Klamath Ocean Harvest Model (KOHM); 2) the lack of stock scaling in the model used by the Salmon Technical Team (STT) to estimate coho encounters in California fisheries; and 3) the analysis of impacts within the Coho FRAM.

KOHM: The model is primarily used to estimate fishery impacts on Klamath River fall chinook. However, one of the model's outputs is the estimated amount of fishing effort that will occur in each time/area/fishery stratum under a given regulation option. For the Fort Bragg area (and other areas as well) historic data (pre-1990s) are used to estimate fishing effort due to the lack of 1991 forward data. For example, when a full month of fishing is modeled for the 2002 troll season in the Fort Bragg area, the model estimates about 4,000 days of commercial effort. At the same time, the estimates for the San Francisco and Monterey areas are about 2,000 and 4,000 days, respectively. It is unlikely that for the month of May there will be a total of 10,000 days fished south of Horse Mountain if all areas are open; the estimate is 6,000 days if Fort Bragg remains closed. In order for 4,000 days to be generated in the Fort Bragg area, local boats will

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Dr. Don McIsaac, Executive Director
Pacific Fishery Management Council
March 26, 2002
Page 3

We understand that the CIM, as it applies to California fisheries, has been reviewed and endorsed by the STT in recent years. However, we are not aware that they have discussed it in the context of stock scaling that takes place within the Coho FRAM.

In conclusion, we believe there are two problems in the modeling of coho impacts off California this year: 1) an exaggerated estimate of fishing effort in the Fort Bragg cells under a seasonal management approach, and 2) the lack of stock scaling in the CIM as it applies to California fisheries. We do not perceive a problem in the Coho FRAM, except that stock scaling in the FRAM combined with the lack of stock scaling in the CIM results in exaggerated impacts of OCN and Rogue-Klamath coho stocks in years of low hatchery coho abundance.

Recommendation: Our primary concern for 2002 management of our commercial fishery is to provide for 1) a full season of fishing south of Point Arena and 2) greater commercial fishing opportunity in the Fort Bragg area than in the recent past. Both fisheries have been documented to target Central Valley fall chinook, a stock that has been exceeding its goal range by very large amounts in recent years (see attached graph). There is also an abundance of Klamath River fall chinook remaining in all of our options for harvest in ocean fisheries. In fact, the estimated coho impacts off California are resulting in a major shift of Klamath River fall chinook catch to Oregon fisheries under either options 2 or 3 due to coho constraints (see Pre-season Report No. 2).

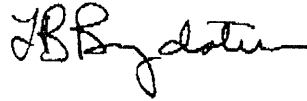
The seasonal management option for the Fort Bragg area, with 31 days of unrestricted fishing during the month of May, results in an estimated harvest rate for OCN coho of 2.0% (which, if true, represents the single largest impact on the stock on the entire west coast). We propose to control the amount of effort that will occur in that fishery by applying a chinook quota, a constrained season structure (e.g., application of daily or weekly trip limits), or a reduced season length that will result in OCN and Rogue-Klamath impacts that are slightly above those that we agreed to as a ceiling in our March meeting. We do not propose to modify the CIM until further analysis can be conducted of the model and the input data. This analysis should include the basis of the early season coho encounter rate estimates for the California troll fishery, which was closed to May coho fishing starting in 1983. We agree that the final regulations should keep us well under the 15% OCN and 13% Rogue-Klamath ceilings approved for ESA

Dr. Don McIsaac, Executive Director
Pacific Fishery Management Council
March 26, 2002
Page 4

purposes. Before next November, we would like to have CDFG staff work with ODFW staff in reviewing and updating the CIM as it applies to California fisheries and bring the results of that analysis back to the SSC and Council for use in modeling 2003 fisheries.

Thank you all for considering our request.

Sincerely,



LB Boydston, Representative
Intergovernmental Affairs Office

Enclosure

Predicted Coho Encounters in Troll Fisheries

$$D_{xz} = (V_{xz})(C_{xz})(M)$$

$$C_{xz} = (R_{xz})(T)(G)$$

Where

- C_{xz} = predicted coho per vessel day for time period x
and catch area z
- R_{xz} = mean observed coho per vessel day during 1986-92
coho fisheries (scaled to OPI abundance north of the
KMZ)
- T = chinook targeting credit (25% reduction)
- G = four-spread gear reduction credit (Oregon troll fisheries)

Mortality Rate in Troll Fisheries

$$D = (V)(C)(M_T)$$



$$M_T = M_h + M_{do}$$

Where

M_T = mortality rate - 31%

M_h = hooking mortality rate - 26%

M_{do} = drop-off mortality - 5%

CIM

FRAM Catch Estimates by Stock and Fishery

$$C_{s, f} = BPER_{s, f} * N_s * S_f$$

Where:

$C_{s, f}$ Catch of stock s in fishery f .

$BPER_{s, f}$ Base Period Exploitation Rate for stock s in fishery f .
1986-91

N_s Number of fish in the cohort for stock s .

S_f Impact scalar for fishery f relative to the base period.

Impact Scalar - S

Effort-based fisheries: S calculated by modeler and is based on projected effort versus based period effort.

Catch-based fisheries: S calculated by FRAM as follows.
Applies to quota and non-retention fishery mortality.

$$S_f = \frac{Quota_f}{\sum_s C_{s,f}}$$

Where: $C_{s,f}$ = Catch of stock s in fishery f during the base period.

Spawning escapements of adult Sacramento River fall chinook

