

ALASKA BOARD OF FISHERIES**FINDINGS REGARDING SALMON FISHERIES MANAGEMENT
PLANS FOR THE COPPER RIVER DISTRICT AND DRAINAGES
ADOPTED AT THE DECEMBER 1996 BOARD MEETING**

During its meeting in Cordova, Alaska in December, 1996, the Alaska Board of Fisheries (board), after having received reports, both oral and written, from the Alaska Department of Fish and Game (department) staff and having received testimony, both oral and written, from members of the public and advisory committees, discussed and then adopted several management plans for the Copper River drainages. These management plans involve sport, guided sport, commercial and personal use. The plans considered were as follows:

- 1) Copper River District Salmon Management Plan, 5 AAC 24.360. The umbrella plan.
- 2) Copper River District Personal Use Salmon Management Plan 5 AAC 77.590. A step down plan.
- 3) Copper River Chinook Salmon Management Plan. 5 AAC 24.361. A step down plan.

Initially, to assist in organizing the work of such a broad range of topics, the board created "captains" from among its membership for the purpose of investigating all of the salient facts associated with each plan, organizing the discussion in a cogent manner, and then presenting an action plan to the whole board. This was accomplished by two board members who presented an outline as to an approach to the problems of salmon management from the marine fishery through to the spawning grounds. That working outline is contained in RC 104, as amended during board discussion, which is incorporated by reference into these findings.

Following the outline set forth in RC 104, the board held lengthy discussions with staff and among its members, and reviewed many reports and other information from the staff and the public. As is its custom, the various board members also met with members of the public during the course of deliberations to obtain the public's views on these plans. The issues considered included, the sockeye and chinook salmon biological escapement goals (BEGs), run strengths for both chinook and sockeye salmon over several years, the inriver goal for both fisheries including the effect of the board's subsistence needs determination made earlier in the meeting, the personal use fishery and the number of fish to be provided to that fishery, the sport and commercial chinook salmon fisheries and, as to all of these fisheries, whether or not there are any conservation concerns relative to both the chinook and the sockeye salmon fisheries.

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Recent years have seen record runs of sockeye salmon. In 1996 for example, more sockeye salmon were harvested in the commercial fishery than at any time in history. All of the 1990s have seen strong runs and excellent commercial harvests in the sockeye salmon fishery. This is a fortunate fact for Cordova with the failures in the herring fishery and the fall in pink and chum salmon prices. It was very apparent to the board that commercial fishing is of vital importance to the economy of Cordova.

As to the sockeye salmon run, for an inseason management tool, the department uses the Miles Lake sonar counter to determine run strength. This sonar effectively counts sockeye salmon. However, the sonar does not adequately count chinook salmon. Thus, the department has information about the run strength of the sockeye salmon, but not of the chinook salmon.

Relative to the conservation concern questions about chinook salmon, the board found that there was a substantial lack of good data on which to reach a firm conclusion. As noted, the sonar at Miles Lake does not count chinook salmon. Instead, the department has been relying on an aerial inseason count of spawning chinook in nine (9) index streams in the upper Copper River drainage.

There are forty known anadromous streams in which chinook salmon spawn. Many of these streams are glacier fed, so it is impossible to determine the number of chinook spawners by aerial survey in these streams. The department uses nine clear streams to build an index of run strength. The department has conducted aerial surveys in past years to count chinook salmon in these index streams. In 1995 there was no survey conducted. In three years in the early 1990s no aerial surveys were conducted. In many of the years when aerial surveys were conducted, the surveys were taken during periods outside of the peak of the run. In the last twenty-three years, fifteen of the years saw aerial surveys where many of the index streams were surveyed outside of the peak period. In eight of the last twenty-three years, surveys were taken during peak periods.

Over the past two years there have been record harvests of chinook salmon by the commercial drift gillnet fleet. However, there is no data on run strength so it is unknown if there is simply an increase in harvest on a stable run or an increase in harvest based upon an increase in run strength. There have also been record harvests of sockeye salmon for which there is run strength data. However, it is not known what, if any, correlation exists between the strength of the chinook salmon runs and the strength of the sockeye salmon runs.

In the personal use fishery there has also been an increase in chinook salmon harvest in recent years. However, in this fishery, the practice of dip netting from boats has increased. Most chinook salmon harvested in the personal use dip net fishery have been harvested by people dip netting from boats, although there are some chinook harvested by shore based dip netters.

In the sport fishery, there has been an increase in guided-sport fishing of some substantial significance. Again, exact data is not available. The department states that there are

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approximately 13 guides on the Gulkana River. Anecdotal evidence was presented to the board indicating that there may be as many as fifty guides operating in the area. In any event, it is clear that guided activity has increased substantially.

Information was also presented to the board as to the relative efficiency of the guided-sport fishery when compared to the unguided-sport fishery. While the guided fishery comprises between 20 and 40 percent of the fishery, the guided fishery harvest is between 40 and 60 percent of the catch. The reasons for this are obvious. The guides are on the rivers daily and know where the fish are to be found as well as what can best be used to catch the fish. The guided-sport fishery operates seven days a week twenty four hours a day.

In the unguided-sport fishery, the harvest has increased in the 1990s as it has in all of the fisheries. Again, this harvest is seven days a week, twenty four hours a day. Also, in this fishery there has been continual and increasing pressure on the spawning grounds which has resulted in some actual conservation concerns on some drainages, specifically, the Tonsina River and its drainages. Thus, the department has recommended the closure of the salmon grounds to fishing as well as certain method and means restrictions in some areas.

The Sport Fisheries Division of the department stated its vision for this drainage. Essentially, that vision is to eliminate fishing on the spawning grounds, confining fishing to the main stem of each system. It has followed this vision in the past with previous stream closings and that pattern will continue under the Department proposals presented to this Board at this meeting.

There was one solid piece of evidence as to chinook salmon escapement in 1996. The department operated a weir on the Gulkana River to count chinook salmon escapement. There was a count of over 11,000 at this weir which is indicative of a very good run, at least on that portion of the Copper River. In 1997 and beyond the department will conduct a coded-wire tagging study and, when the tagged fish are returning, the department will again operate the weir to recover some of these fish. This project, along with the continuing and regular aerial surveys to be conducted by the department, will provide a better data base on which to determine relative run strength of chinook salmon in the Copper River drainages with the ultimate goal being to establish BEGs for all of the index streams. It is anticipated that the coded-wire tagging study will take six years to complete.

The other data for the rest of the index streams in the drainage for 1996 were based on the aerial surveys. These index streams indicate a good escapement. However, the use of the index streams is based on certain assumptions which, while probably valid over time, lose a substantial amount of validity when there is not a continuous season to season accumulation of good data to support the assumptions. As noted, there is a substantial lack of good data on chinook salmon.

Because of the absence of good data relative to chinook salmon spawning escapement, no firm conclusions can be reached as to the run strength and, thus, no firm conclusions can be reached as to whether or not there are any conservation concerns. While it is true that the

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existing data does not indicate a drainagewide conservation concern department. When the absence of data is coupled with increasing harvests of chinook salmon in all fisheries, a conservative management approach is called for.

The lack of data and the increasing harvests, led the board into a discussion of the "insurance policy" concept. This concept holds that when there is poor information on run strength and escapement and when fishing pressures and harvests increase, the board should decrease the harvest potential of all fisheries in order to protect the resource. It should be clear here, that the board did not find that there were conservation concerns in the drainage, only that the lack of good data could not provide the basis for a conclusion of either adequate run strength or conservation concern. Neither the board nor the department is sure about what is happening in this fishery.

Given these facts, the board took the following actions in the various sockeye salmon fisheries:

- 1) Established the umbrella plan, the Copper River District Salmon Management Plan, 5 AAC 24.360 which established an inriver goal of 300,000 sockeye salmon. In addition, the inriver goal is to include 17,500 other salmon to account for chinook salmon including the 5% reduction in the commercial harvest, 60,000 to 75,000 for subsistence, 100,000 for personal use purposes, 15,000 for sport harvest and an annually determined amount for the hatchery return including those sockeye salmon needed for the program as well as excess hatchery sockeye salmon.

- 2) Established a step down plan for the personal use fishery, the Copper River District Personal Use Salmon Management Plan 5 AAC 77.590.

Prior to taking these actions adopting these plans, the board discussed and applied its allocation criteria.

The board also took the following actions in the various chinook salmon fisheries and adopted the Copper River Chinook Salmon Management Plan. 5 AAC 24.361:

- 1) In the commercial fishery, the harvest potential was reduced by five percent (5%). This reduction was in the form of instructions to department staff to implement time and area restrictions in the first two weeks of the fishery to put more chinook salmon into the Copper River. Since there is no way to measure the results of these actions (the board is assuming that the time and area restrictions will put more chinook salmon in the river), the board instructed the department to take some time and area actions each and every year while this plan is in effect.

- 2) In the personal use fishery, the harvest potential was reduced by five percent (5%) by reducing the bag and possession limit from five to four chinook salmon.

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3) In the sport fishery, the harvest potential was reduced by five percent (5%) by closing all drainages to guided fishing on Tuesdays. The guided-sport fishery was targeted because of its greater harvest potential, its exponential growth and the other conservation actions taken by the board relative to the unguided-sport fishery.

Again, prior to adopting these actions and this plan, the board discussed and applied its allocation criteria.

The board determined that by adopting these various management plans, it would provide a conservative plan of management for all of the chinook salmon fisheries while allowing the department to gather information upon which good decisions can be made by future boards. In this regard, the board is determined and the department has assured the board that the aerial surveys, the coded-wire tagging and the Gulkana weir project will be continued so that the essential data can be gathered for good management decision making. Based on these assurances and the promise of better data, the board included a sunset provision in the plans which have reduced the harvest potential by five percent (5%) in the commercial, sport and personal use chinook salmon fisheries.

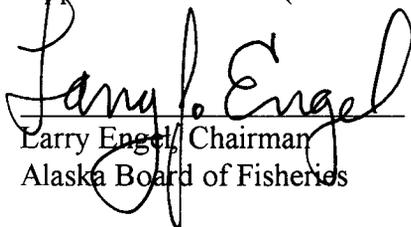
The board further directed the department to form a work group of inriver (subsistence, personal use, sport, and guided-sport) fishers and ocean (commercial) fishers with the stated purpose being to determine what resources are available for data collection and how those resources can best be spent so that the board will have accurate data on the chinook salmon. The department shall report to the board at its October 1997 work session as to the formation of this work group.

Other Board Actions:

Independent of the "insurance policy", staff recommended other conservation measures in the sport fishery to maintain the likelihood of adequate escapements in the future. Additional conservation measures were taken throughout the sport fishery to prohibit sport fishing for chinook salmon in small streams throughout the Copper River drainage and to prohibit sport fishing for chinook salmon after the onset of spawning. Also, harvest potential in the Tonsina River sport fishery was reduced by 50% in direct response to chronic inability to meet spawning escapement objectives during the 1990s in the face of a rapidly expanding sport fishery in the Tonsina River. These staff recommendations were consistent with allocative strategy and poor knowledge of stock composition in the mixed stock fisheries.

At Sitka, Alaska - Date: January 29, 1997

Approved: 6/0/0/1 (Yes/No/Absent/Abstain)


Larry Engel, Chairman
Alaska Board of Fisheries