

KLAMATH FISHERY MANAGEMENT COUNCIL MEETING #42  
MINER'S INN, CONVENTION CENTER, YREKA, CALIFORNIA  
OCTOBER 12, 1995  
DRAFT MINUTES

The meeting was called to order by Chair McIsaac at 8:10 am. A quorum of members were present (Attachment 1).

Background (Parker)

Correspondence: Since the last Klamath Council meeting (April), the Council has received:

Agendum #3: a) Appointment letter from the Governor of Oregon (John Kitzhaber) for McIsaac and Wilkinson (Aug. 3, 1995), b) Letter designating Paul Kirk as Robert Hayden's alternate for the Calif Offshore Sport Fishery (Oct 4, 1995), c) Letter announcing that Rolf Mall, (Chief of Marine Resources, DFG) retired. L.B. Boydston will be designated as Acting Chief until further notice (July 31, 1995), and d) Letter from LB Boydston appointing Baracco as his alternate for this meeting (September 28, 1995).

Agendum #5a: Letter from Bureau of Reclamation (BOR) re: The need for continued monitoring on the Trinity River (July 12, 1995).

Agendum #9: Letter from Gene Elmer, Harbor, Oregon regarding the "Life of a Commercial Fisherman" (May 6, 1995). Copies are available at the back of the room.

Agendum #11: Letter from National Marine Fisheries Service (NMFS) re: Proposal to list three coho evolutionarily significant units (ESU's) (Oct 11, 1995).

McISAAC: Could staff please draft a letter thanking Sari Sommarstrom and Dave Webb for their help with guiding us on the field trips? Make sure to make the point that we were glad to see that, overall, the habitat degradation is being halted and the conditions are improving?

PARKER: Yes, I'll do that.

Agenda item #1: Review and approve agenda.

\*\* Motion to approve agenda (Attachment 2) (Wilkinson). Seconded.  
\*\*\*\* Consensus.

Agenda item #2: Approve minutes of March 1, April 2 & April 5.

\*\* Motion to approve minutes (Wilkinson). Seconded.  
\*\*\*\* Consensus.

Agenda item #3: Report from members on re-appointment status.

Q: (McISAAC): Is it necessary for us to have a letter appointing Dale Webster to represent the non-Hoopa Indians?

A: (IVERSON): There should be a letter in the files.

KIRK: The appointments for the four California positions are still pending with the California Governor.

BARACCO: We periodically contact the Governor's office, but we haven't heard when the appointments will be made.

BOLEY: The Chair of the PFMC (Fletcher) asked me to continue serving, but I haven't given a written letter to Ron.

McINNIS: Due to reorganization, NMFS is even more held up than usual in getting its appointments made.

\*\*Action: McISAAC: At the next meeting, we will review the list of outstanding appointments again.

Agenda item #4: Update on status of Trinity Restoration Program. [Deferred until Grover arrives later today.]

Agenda item #5: Status of TAT assignments.

a) Identification of funding for Trinity River monitoring.

BARNES: The Trinity reauthorization is still in a state of flux. DFG is still scheduled to perform monitoring on the Klamath, but the status of the \$1 million needed for monitoring on the Trinity is still unknown. The TAT was concerned about this lack of data collection, so we met in July to address this issue. Mark Zuspan, project leader on the Trinity River, helped us develop a budget for fall chinook monitoring only. This program amounts to \$230,000. But we still need coho and steelhead monitoring programs, and marking programs, so we wrote a letter (Handout A) with the details. I apologize to the Chair for sending it to Patterson, BOR, without his signature. The second handout (B) was brought about between the Tribe, the State and the BOR due to George Kautsky's efforts. For the near term, 1995 and 1996, Trinity River monitoring will be funded by the BOR.

McCOVEY: We need to continue to look at options for long term funding.

BARNES: The BOR is committed to help out in the short term, but they don't want to commit to long term monitoring in case the reauthorization does not go through. Mainstem spawning estimates and scale analysis were at risk of not being funded, but Wilkinson defended these proposals so they qualified for Klamath Task Force (TF) funding.

Q: Is there still funding for tag recovery at Trinity River Hatchery?

A: (BARNES): Yes. The Hoopa Tribe did a good job influencing BOR to tag yearlings and fingerlings for spring and fall chinook. This may have been the precedent that helped the BOR commit to other funding.

New agenda item: Funding harvest management projects.

WILKINSON: Every year, the TF approves an annual work plan for the upcoming fiscal year. This work plan consists of the proposals that are highly rated by the TF's Technical Work Group (TWG). Initially, the proposals that this Council depends on for data on salmon population monitoring fell below the funding cut-off line. Later, these proposals were moved up to be considered part of the fy96 work plan. In the future, I recommend that we emphasize the importance of these types of proposals to the TF and TWG for our work in salmon harvest management.

BARNES: Both Jim Waldvogel (Del Norte County) and Steve Jacobs (ODFW) serve in a dual membership position on both our Klamath Technical Advisory Team and the TF's TWG.

WILKINSON: We should also suggest to the TF that these continuing programs be funded on a longer term basis than just an annual basis.

\*\*Action: McISAAC: I will note that this could be an agenda item at a Three Chairs meeting. I'll also encourage those with dual memberships to remember how important these ongoing projects are to the Klamath Council.

5b) Analyze the performance of the harvest rate model -- schedule to be announced.

BARNES: Alan Baracco gave you a description of the harvest rate model a few years ago. At that time, we decided to look at some scenarios to see how use of the floor affects the harvest rate model. We decided to look at the data from low escapement brood years ('90 and '91). Since returns from those brood years are now complete, we have been reminded by staff to work on this task. We will be looking into this task soon.

Q: (BARACCO): I'm confused by this TAT assignment. The harvest rate model (HRM) is simply a performance model, it doesn't need to be analyzed. The HRM allocates fractions of allowable harvest to ocean and river fisheries. The HRM is not the model that describes the distribution of Klamath fish in the ocean -- that is the Klamath Ocean Harvest Model (KOHM). The KOHM describes ocean impacts. The technical discussions revolving around enhancing the HRM were in response to a change in the basic allocation framework. This change in the basic allocation framework is a result of the changes in tribal/non-tribal sharing. The analysis of the harvest rate model has nothing to do with the floor.

Q: (McISAAC): So, is this agenda item in regards to ODFW's memo (Handout C)

A: (BARNES): No, we received that memo just prior to this meeting, so we have not had time to work on it.

BARACCO: Since the allocation rates have been changed (between tribal and non-tribal harvesters), we now have to use the HRM a new way to get it to show relative rates. The TAT could refine the HRM to provide better flexibility in how the allocation works and give information that is closer to what is actually happening.

\*\*Action: McISAAC: Now that we are under the 50/50 tribal/non-tribal sharing constraint, the TAT could refine the HRM. We will leave this task for the TAT to consider.

New agenda item

McISAAC: The next task is the concern that the KOHM over-predicts Klamath contribution in KMZ. There may be some inherent bias in the KOHM model. I asked Don Bodenmiller of my staff to look into this issue. His memo (Handout C) addresses this concern and recommends that the TAT review the issue more thoroughly. Bodenmiller found that the predicted Klamath contribution was higher than the actual Klamath contribution in 6 out of 7 years. This could mean that there is a bias with the model. Should we ask the TAT to look into this?

BOLEY: Yes, I think we should. This model predicted .45 Klamath component in the KMZ fishery when, in reality, it was about .20. We need to look into the issue of how we are going to handle late season KMZ fisheries.

\*\*Action: BARNES: The TAT calibrates the model on an annual basis. This request could be part of that calibration.

5c) Analyze the appropriateness of the spawning escapement floor -- schedule to be announced.

BARNES: This agenda item is another place marker for an assignment that the TAT was given a long time ago. It is tough to analyze the appropriateness of the floor when we have been below the floor.

McISAAC: This Council passed a motion to do this after the '95 season -- when we had all the data on the '90 brood. I would like to see the TAT speculate on the effects of other floor levels on brood success.

BOLEY: The assignment to the TAT needs to clearly specify which data we want them to look at.

McINNIS: The Pacific Fishery Management Council's (PFMC) Salmon Management Plan is a potential trigger for an open fisheries review. The NMFS is going to be taking this spawning escapement floor quite seriously soon. Using the spawning escapement floor as a target in a given year may not be the best way to go. When the Technical Team gets this assignment the first step is to look at the 35,000 floor and the next step would be to give us some advice on where we have to be to insure that we have a greater than 50/50 potential of hitting or exceeding that floor.

BITTS: Are you suggesting that there are two values to be determined? One is the **genetic floor** and the second is the **management target**? Perhaps we might need to determine some ratio between those values.

McINNIS: What we are looking at is building up a sufficient data base so that we can do a statistical analysis to determine that we have something like a 75% probability of meeting the floor. I am hoping to approach it in that fashion rather than aiming right at 35,000. The question still remains on whether the current floor is meaningful. This issue is why we need to go through the review. The new, analyzed floor will be viewed as a meaningful **genetic floor**. The **management target** will then be something above that floor.

McCOVEY: We need to remember that we are looking at a lot of issues besides just numbers (e.g. habitat and water).

McISAAC: Rod, this potential assignment really amounts to a run forecasting track record. For example, how often do we end up planning above that floor or what should we expect based on our track record for forecasting the floor? This track record might improve every year that we gain more data.

BOLEY: If there were two numbers, one being a **genetic floor**, or a point at which your potential for reproduction from a brood year might be at risk, and another being the **management target** for a given year, it would seem like you should be able to do some statistical analysis of the data to set some parameters. For example, we need 10,000 fish more than the genetic floor in order to assure that we are not going to be going below that genetic floor. This genetic floor probably wouldn't change from year to year.

McINNIS: An annual change in the floor would be more complex than we want to deal with; it might be reviewed on some kind of a schedule (e.g. 4-5 years). If we chose a probability of falling below the floor that was acceptable to this group, the PFMC, and NMFS, then that probability should be what gets fixed. We would also fix the probability to forecast ocean impacts. If these probabilities are approved, then the absolute number of the fish that we would aim at would be higher than the floor. We might have some more leeway if we know for sure that our aim is going to be good. On the other hand, if we lose data that we are using to forecast the run sizes, the opposite would happen. What we are doing is setting a policy on how much risk we are willing to accept of falling below the floor. The probability of falling below the floor should be far less than 50%.

BARACCO: Since the PFMC and the KFMC have been in floor management, they have actually aimed for more than 50% probability of falling below the floor some of the time. For example, one year, they aimed for about 26,000 rather than 35,000. Whatever number is designated as the "lifeline" needs to have a high probability that it maintains the genetic integrity of the stock.

BITTS: The floor of 35,000 is supposed to be the level below which the ability of the stock to reproduce itself successfully, and flourish and rebuild, is jeopardized. This might not be the same as the sense in which Rod has been using it -- as in a genetic floor.

BARACCO: The two floors that are being discussed are very different. The **spawning escapement floor** of the Klamath stock (chosen by the Council to be approximately 50% of the MSY capability of the stock) is designed to preclude lengthening the time for stock rebuilding to occur. This is both a biological and economic safety net (i.e. a floor). Regarding the **genetic floor**, there has been a lot of work done on the genetic integrity of individual stocks, affected population sizes, et cetera, and those are very different things than the **escapement floor** on the Klamath was designed to accomplish.

McINNIS: I was not referring to a floor that would protect the genetic integrity of the population. That is a far lower threshold. I was referring to the purpose of reviewing the 35,000 **spawning escapement floor** and then assuring some high degree of probability that it will not fall below that.

BOLEY: The **escapement floor** has meant a lot of different things to a lot of different people. The approach that Rod is suggesting has merit in it. The public has been confused by what we mean by floor level escapement for some time.

McCOVEY: We have already lost the genetic diversity in the stocks because we don't see five or six year old fish anymore. As you saw yesterday on the field trip, you have a lot of smaller fish in the river. You don't have the big ones that used to be in there years ago. We would like a rebound to benefit everyone at this table.

BARNES: I will read you the statement from the Pacific Council approved harvest rate model: "An **escapement floor** of 35,000 natural spawners was recommended as part of the harvest rate option and this level of spawners is needed to protect the production potential of the resource in the event of several consecutive years of adverse environmental conditions." At that time, a theoretical low risk number (35,000) for rebuilding the stock was chosen. This obviously doesn't have a really good genetic basis.

McISAAC: Before the March Klamath Council meeting, we need to re-state our definition of the floor.

BITTS: I certainly hope, that in the Team's reevaluation of the floor, that they give a lot of consideration to the stock recruitment data that we have collected over the past 15 years and that they look very carefully at the production resulting from different spawning escapements. The Team would still need to decide if production is measured as three year old fish on May 1st in the ocean or if production is measured as two year old fish. This is the key relationship that has to be evaluated in determining what the floor should be.

McCOVEY: One of the reasons the Hoopa Tribe brought forth the spawner deficit accounting proposal is that we thought the floor was appropriate. Science is always getting more and more refined, so we should look at the floor as a long term solution instead of a short term issue.

McISAAC: Is there any further discussion on this? We will define the specifics to this assignment later this afternoon. Before we take a break, are there any other preliminaries on Tech Team assignments that anyone would like to bring up?

No response.

BREAK

McISAAC: Note that Dr. Iverson is representing the U.S. Fish and Wildlife Service.

Agenda Item #6: Retrospective on the 1995 Season.  
California Department of Fish & Game (CDFG).

BARACCO: Handout D relates to ocean harvest, it shows the best data we have right now for California's troll and recreational ocean harvest levels. These are catches through July in the various states. This chinook catch for California (675,000) is pretty accurate based on the preliminary information we have now. We are still waiting for ticket information and editing of our sample data bases so we can produce a solid number. The only thing different relative to the overall commercial fishery catch in California would be its distribution. There has been a one month season (September) allowed in the Fort Bragg area since this table was produced. So the zero on the table should be changed to show 6,000 chinook. This could be a relatively "normal" September. The numbers for ocean recreational fishing are reasonably accurate. North of Point Delgada, the 8,300 chinook was augmented somewhat by the late August and early September fishery in the Klamath Management Zone. It was a pretty robust harvest, on the order of 5,000 fish (in the California part of the Zone), during that 9 day period of September when the fishery was opened. The number for south of Point Arena will probably climb to 350,000 when we get final information from the charter boat operators. The ocean fishery proceeded as recommended by the PFMC this year with: #1 A staggered opening date for components of the commercial fishery the further south you got, and #2 A recreational fishery south of Horse Mountain that operated continuously (except for the month of July in the Fort Bragg Port area), and #3 Within the constraints of the seasons recommended by this Council for the Klamath Management Zone.

Q: (McISAAC): Can you tell us more about the fairly far southerly penetrations of salmon migration? I heard one story of salmon in Mexico. Is there any truth to any of that?

BARACCO: Yes, early in the recreational season we saw a rather unusual abundance of chinook salmon south of Point Conception. We extended our sampling efforts farther south to look into this anomaly. Our best estimate is that between 50-75,000 salmon were caught south of Point Conception by the recreational and commercial fishery once it started in May. It is somewhat unusual that salmon occupied this southern area for so long throughout the summer period. The California fisheries centered in the San Francisco and Monterey areas, contacted very few coho throughout the season.

Q: (McISAAC): Alan, have you had any initial peaks of coded wire tags (CWT) or any other indicators from the catches to learn anything about such things as winter chinook or Klamath fish in this southern distribution?

A: (BARACCO): Our sampling of 30 or 40 heads from down south early in the season indicated they were all from the Central Valley. We have not yet completed any tag reading from the general fishery for comparison. Our goal is to provide that information to Pacific States Marine Fishery Commission (PSMFC) by January 1st.

New Agenda Item: Discussion on Sacramento River Winter Chinook

Q: (McINNIS): Alan, I was told the other day that there was a 50% harvest rate on winter chinook. Is this true?

A: (BARACCO): Yes. Data from the 1994 ocean fishery (relative to the interception of coded wire tag winter run chinook from the Sacramento River) coupled with 1995 spawning escapement information of coded wire tagged fish produced an estimate of ocean impacts exceeding 50% for that particular population of fish. This information was provided to managers, biologists and the media.

BITTS: Rod, that information is based on a very small recovery of tags in the ocean. At the PFMC meeting in March and April, managers agreed that 18 tags were not enough to use for any statistical analysis. A lot more information was needed. Since then, apparently, someone has changed their mind and used this very small sample to come up with a harvest rate.

BARACCO: There were 17 tags collected in the 1994 ocean fishery and 8 tags recovered in the 1995 spawning escapement in Battle Creek. CDFG wouldn't presume any level of confidence to the escapement. Fish and Wildlife Service generates that data. Fish and Game acknowledged that tag recovery conditions were poor in the Battle Creek so they were not at all confident that they got a good sample.

McINNIS: The information on the quality of this data collection will be useful to NMFS for consultation under the Endangered Species Act (ESA). The consultation will take place over the next few months. Our target is to have information available to the Pacific Council before the March meeting so that they will have an idea what the incidental take allowance will be in the future. Statistically, the 50+% harvest impact in the ocean is probably not different from what was allowed in the incidental take statement in 1991. The NMFS will be looking for some consistency in how we treat each of these listed runs. That doesn't necessarily mean everything has got to meet the same mark exactly, but if they don't, we will need to elaborate on the reasons why we are not being consistent. The NMFS was interested in reopening the consultation based on the tag returns from the 1994 fishery. We waited until now so that we have the spawning run information from the 1991 cohort. We wanted to have some sort of fix, however strong or weak, that might show us what the ocean fishery impact was on the coho. This information and the information that we had used previously will form the basis for the consultation. The NMFS will be consulting with itself.

BITTS: There have been spring run genetic markers identified in the winter run fish in the captive brood stock program from that cohort. This apparently is a fairly contentious issue.

BARACCO: There is a really strong indication that virtually all of the hatchery production of winter run chinook in the 1992 brood returned to Battle Creek. The biologists associated with the program felt that there will be no production from the '92 brood spawning in Battle Creek since they spawned in lethal temperature conditions during the summer of 1995. The concern about a potential mixed brood (spring and winter fish), may not exist due to temperature limitations. Regarding escapement accountability, the total escapement estimate for winter run in 1995 is 1,361 fish. Of those fish, FWS examined about 400 of them in their various sampling programs (Battle Creek, Keswick Trap, river carcass surveillance, etc.). During those observations, no tagged winter runs were found in any place besides Battle Creek. Hatchery fish are reared at Coleman National Fish Hatchery on Battle Creek. The fish home back in to Battle Creek. The 1992 brood has a virtual 100% return rate. This is not conducive to their production since Battle Creek is not a very good place to spawn in the summer time. The hatchery program has not been very

0successful in their primary goal of augmenting the wild populations. Winter chinook are listed as an endangered species under the ESA. The 1,300 fish that returned in 1995 are from a parent brood size of approximately 1,100. The concern is that rebuilding or recovery on a brood replacement basis appears to be just barely happening. There isn't any significant growth in the population from the standpoint of parent brood size. Parent brood size for the fish that will return in 1996 was approximately 200 fish and the parent brood for those that will return in 1997 was about 150 fish. These things are a concern relative to fishery operation in the next year or so and for recovery of the species. A very detailed technical report of the methodologies and observations of the 1995 run is available at the Red Bluff FWS office.

Agenda Item #6: Retrospective on the 1996 season (continued).

California Ocean Troll Fishery:

BITTS: The catch rates in May and June this year were phenomenal in the area below Point San Pedro. When the commercial troll season opened in the Gulf of the Faralones, it was also good. At the time that these seasons closed, there were still reports of people catching as many as 200 fish a day. I am not saying that that happened every day or that very many people caught that many, but those kinds of catch rates occurred. The fish at that time were predominantly smaller fish, probably averaging 8-9 lbs dressed weight. The best fishing was happening in the area probably between Santa Cruz and Half Moon Bay in that period. I believe they did well south of Half Moon Bay, too. When the season opened above Point Reyes, the picture changed a lot. In my view, the ocean thought it was April in that area between Reyes and Point Arena when it opened on the 5th of July. It looked like there was an extreme southern shift occurring in the location of fish in July. Later in the season (August and September), we didn't find so many fish, but we found bigger fish (20 lbs and up) combined with very thin fish. I don't know if these thin fish were malnourished or if it is a strain that is thin. They seemed to be healthy.

Q: (BOLEY): This is the first time in recent history that we have had a closure below Point San Pedro. We agreed to this component of the season anticipating that we weren't going to have a southern shift of fish, we were going to have a northern shift. Do you have any perspective on whether you would do that again or not?

A: (BITTS): We were completely fooled as to where the fish were going to be this year. I would not attempt to design a season of this shape again. My log shows that I encountered my first coho on the 12th of June. By the end of June, I encountered a total of 9 coho.

Oregon Ocean Troll Fishery.

MCISAAC: The Oregon troll total, through the 24th of September, is 176,000. The fishing has been particularly good off Newport particularly after the midsummer closure. Of that 176,000, about 140,000 was out of the Port of Newport, 24,000 was out of Coos Bay and there were some strong catches up in the Tillamook area (about 8,000).

Oregon Ocean Recreational Fishery.

McISAAC: The total Oregon recreational chinook catch is 5,400; 4,900 of that out of Brookings. Two special seasons (to avoid coho) in May and June were very light. The troll fishery off the mouth of the Rogue did not meet its quota. The troll fishery in the Florence Jetty south area also came far short of meeting the quota. The KMZ sport fishery has met and exceeded the August component of the quota. Oregon interests are looking into ways to restore "historic" sharing.



New agenda item: Pacific whiting by-catch of salmon.

BOLEY: By-catch in Oregon, in the spring, was quite high. The workshop at the last Pacific Council Meeting tried to identify ways of avoiding salmon by-catch in the future. It was notable that a lot of that by-catch consisted of larger fish. This indicates that fish were available in the area.

WILKINSON: Another workshop on whiting by-catch will be held in conjunction with the March/April Pacific Council meetings. It is important that ocean recreational and commercial fishermen attend so that they can keep up-to-date and communicating on this issue.

California Ocean Recreational Fishery

KIRK: The KMZ recreational fishery on California waters closed before the last week of the 9 week fishery because we had a large catch in the 7th and 8th week. The KMZ Coalition will soon discuss the problem of the KMZ catch shift to California (e.g. the May fishery was strong in Oregon then shifted south).

River recreational fishery.

BOSTWICK: The fishing effort was up and the fish were bigger (14-15 lbs average). It was a decent season.

MARK PISANO, CDFG: Between August 6th, when the 1995 lower river (below Coon Creek Falls) angling season began and August 25 when the size restrictions were imposed, 13,749 adult chinook were caught, but only 1,341 were harvested. The rest were released. (Anglers were also permitted to take adult chinook September 2nd and 3rd (Labor Day Weekend)). This compares to 3,429 fish in 1994 (Handout E).

Q: What is the mortality rate for fish that are caught and released?

A: It is probably quite low because the regulations require anglers to use barbless hooks and to release the fish while it is still in the water. We have not heard reports of large number of mortalities.

Q: How many coho were harvested?

A: We estimate that there were 80.

Q: It seems like sport harvest is usually about 10% of the run. If that is true this year, then we may have a big run. How does the angler effort compare to the previous years?

A: The fishing was good last year which led to a build-up of excitement for fishing this year. We retained 5% of the quota for Labor Day Weekend -- and there was a big fishing effort again this year. Harvest on the mainstem Klamath resumes again tomorrow below Iron Gate Dam (IGD).

Q: How does the escapement look?

A: There are a lot of large, healthy fish. Some fish returning to the Shasta River are still silver. The Trinity Harvest estimate is produced at the Willow Creek Weir. The 28 day lag between the lower river and upper river seasons is based on the historical data (collected since 1978) designed to average the remaining 50% of the quota between the two areas.

McISAAC: When does the 28 day season begin?

A: It began on Monday the 4th of September and concluded on October 1st.

Q: How do the fish caught in the sport fishery above I-5 fit in?

A: (BARACCO): They are not part of the river sport fishery quota of 1800. They are considered to be surplus hatchery fish because they are predominantly of hatchery origin. Tomorrow, Iron Gate Hatchery expects to meet its egg take goal so the sport fishery can proceed.

#### Yurok Tribal Fisheries

DALE WEBSTER: The spring chinook fishery was the best in years (Handout F). For conservation purposes, we restricted our fishermen to two days and three nights of fishing - - this wasn't very popular. The fall run was about two weeks late. The estuary fishery went over the sub-quota by 300 fish, the mid-Klamath went over the sub-quota by 30 fish and the upper-Klamath was 300 fish under the sub-quota (as of October 3). We caught 172 jacks. The river is now completely shut down. Coho are just starting to show up.

Q: (BITTS): How did the dip net fishery go? I understand that it has been fairly successful in the last couple of years.

A: (WEBSTER): It was good. When the mouth starts to close, the dipnet fishery is the best, because the fish are fighting so hard to get up river.

Q: (McISAAC): Why did harvest in the estuary (5,100 fish) go over the sub-quota (4,836 fish)?

A: (WEBSTER): That is because of the pole fishery.

Q: (McISAAC): When the aggregate quota is reached, will all fishing stop? Am I correct in hearing that there are still fisheries planned to proceed even though the quota will be met?

A: (WEBSTER): We have not subtracted out the grilse numbers because this year's size determination for grilse has not yet been made by CDFG.

Q: (McISAAC): If I add the numbers up on the bottom of the handout, then subtract 172 jacks, I get what the Yurok Tribe has harvested so far (11,961 fall chinook). What is the overall quota?

Q: (WEBSTER): The overall quota is 12,240. We are reserving 200 fish for the pole fishery.

McCOVEY: I would like to thank the Yurok Tribe for having the foresight to structure their fishery the way they did. I think that it has had a dramatic effect on fish runs in the Trinity.

Q: Do you have a ball park estimate of how many tags you collected in the lower river net fisheries?

A: (DAVE HILLEMEIER, Yurok Tribe Biologist): No, we haven't read them yet. We will have that information soon, because we will soon be processing a couple thousand heads.

#### Hoopa Tribal Fisheries

McCOVEY: I think we met our quota for the first time this year for the spring fishery. Meeting the quota had good and bad effects. There were still a lot of fish coming in, but we had to shut down our fisheries (Handout G). That created a problem shaping our seasons in the future. In the future, we are going to have to have some

closures to be able to spread this quota through the whole season. This year, we started monitoring way before we actually started getting fish. Our spring fishery caught 1,175 fish compared to only 250 last year. It was a good year. The rebound was due to the abundance of water. The high water moved a lot of sediment around and blew a lot of the bars out. This year's gravel movement has made a lot better spawning habitat. The fall fishery has harvested 3,383 fish. We did not close our fishery sooner because we had our ceremonial dances this year. They are probably the most important events of our Tribe and we have them for about a month straight. In the past, during the ceremonial fishery, there was not enough fish so we had people complaining. This year they had enough fish to feed the multitude of people that come to watch these ceremonies. The Tribal Council acted responsibly and shut the fishery down when they got their quota. Tribal fishers only exceeded the quota by a small amount. Right now we are closed. We have seen a lot of coho coming through. Another big factor leading to the increase in the fishery this year is the pulse flows that were released during our ceremonial dances.

Q: (WILKINSON): Were the fish harvested as part of the ceremony accounted for as part of the Hoopa fishery?

A: (McCOVEY): Yes. The ceremonies are also a harvest method.

New Agenda Item: Karuk Tribal Fisheries.

Q: Do we have any numbers on the Karuk harvest?

A: The numbers have not been reported yet.

WILKINSON: Years ago, we asked the Karuks to provide these numbers to this Council.

McCOVEY: I thought CDFG (Boydston) and Interior (Shake) were going to ask the Karuks to provide those numbers so we wouldn't have a big gap in the data. The Karuks should be contacted and asked for their data.

Q: (McISAAC): What is the best way for the Council to do what Pliny is recommending? Does FWS have a communication avenue via the data collection agreement that was funded a few years ago?

A: (IVERSON): The harvest estimate done by the Karuk Natural Resources folks was a project that was funded through the Klamath TF in 1990 and 1991. Since that time, they have not submitted any more data to us. I believe they said they have gotten some funding from other sources for that purpose. My recollection was that L.B. was going to arrange a meeting with the Karuk Tribe to discuss the management of that fishery.

BARNES: I understood that BIA was funding assessment of the Tribal harvest. I haven't seen any reports.

WILKINSON: This Council could send a letter to the BIA seeking any information they might have about the numbers of fish harvested in the Karuk fishery.

WEBSTER: I would suggest going straight to the Karuks to ask for the numbers.

McISAAC: Since L.B. had indicated that he was going to contact the Karuks, let's wait to hear the results of that meeting.

Klamath Spawning Escapement (Mark Pisano, CDFG):

PISANO: When you refer to page 2 of Handout E, you'll see the preliminary numbers for the Shasta River through October 7th. For the Shasta River through yesterday, we

are now at a total of 7229 adult chinook, 107 grilse, only a couple of steelhead and no coho in the Shasta yet. In Bogus Creek, we have now counted a total of 63 adult chinook and no grilse. The season total for Iron Gate Hatchery (through yesterday) was 4,965 adults and 18 grilse. The grilse component in the run (so far) is extremely low in Shasta River and at Iron Gate. The rate at which fish are coming into Iron Gate is steadily increasing. I don't expect to see the peak in the Shasta River until this weekend. I think we could be looking at a 15,000 fish run in the Shasta this year.

Q: Is the large grilse size reflected in your adult count?

PISANO: No, we are still using the 22" cutoff as the breakoff between the adults and the grilse. We won't know until after the season what that cutoff measurement actually is, so we may have to adjust our adult/grilse count slightly. I would say we are a little bit more than 1/3rd of the way through the run at Iron Gate Hatchery. In 24 out of the last 25 years, the peak of the run has been the 3rd week of October.

### Trinity River Escapement

BARNES: I can speak for CDFG on the weir data, but I don't have any hatchery data.

BARNES: The Trinity run (above Willow Creek) is up a lot this year (Handout H). The seasonal total (through last week) for adults was just under 3,700, compared to last year's run of about 1,250. I would estimate that most of the run is through the Willow Creek weir by now. It is interesting that the run is approximately 3 times what it was last year. Adipose fin clipped fish are only a little less than double last year's numbers so it looks like the run is mostly wild fish. Jay Glase, one of the few remaining personnel in the Trinity Field Office, is heading up the data collection for separate population estimates on the mainstem Trinity River above the north fork and in the tributaries.

PISANO: The spawning escapement estimate into the Trinity River produced by mark and recapture at the Willow Creek weir may represent 99% of the run. Certainly it is a vast majority of the fish that travel above the Willow Creek Weir and spawn.

Q: What fraction of that run do these Willow Creek fish represent?

A: (PISANO): The protocol that was adopted last year is to operate the weir 5 days a week for 18 hours a day, so the weir is open incidental to that schedule.

A: (BARACCO): Typically, we see about 17 to 20% of the run at the mark, recapture location at Willow Creek. We sample 15% of the run on the Shasta. At the Willow Creek weir, they are only counting 20% of the run. The Shasta River Racks are counting 100% of the run.

Q: (WILKINSON): What are the recent observations in Cottonwood Creek in relation to run strength and the restoration programs?

A: (PISANO): Unfortunately that is not one of the tributaries that we sample. We haven't done any work in Cottonwood Creek for a number of years now, partly due to the drought that kept Cottonwood Creek dry for a number of years and now because we don't have the staffing resources to look at it. I would like to be able to sample it.

Q: (McISAAC): Will the 35,000 escapement goal be met?

PISANO: My personal opinion is that we will make the 35,000 floor this year for

natural spawning adults.

Q: (PARKER): How does the run peak compare between Iron Gate Hatchery and the Shasta River? You said the 3rd week of October was the peak of the run at Iron Gate, but what is the peak coming through the weir on the Shasta River?

A: (PISANO): The peak on the Shasta River will be right at the end of the second week and at the beginning of the 3rd week of October.

Q: Mark, do we have any information, anecdotal or otherwise, on the Scott and the Salmon Rivers to date?

A: (PISANO): I have personally seen a large number of fish holding at the mouth of the Scott River. Flows in the Scott still remain a little bit low because irrigation season is underway for a few more days. I think that once irrigation ceases, flows will return and fish will be in the Scott River. In terms of the Salmon River, we are doing our first survey of that tributary today and so I expect a lot more data at the end of the day. There were more spring run fish in the Salmon this year, but I don't know what the number was.

[Note: CDFG's megatable is enclosed for a further update on river harvest and escapement.]

#### LUNCH BREAK

#### Reconvene

GROVER: Mr. Chairman, I would like to apologize to the Council for being late. Ron Iverson was authorized by me to serve as Department of Interior's representative in my absence.

#### 1996 HARVEST MANAGEMENT SEASON

#### Agenda Item #7: Report from the Harvest Allocation Work Group.

WILKINSON: The Harvest Allocation Work Group (HAWG) did meet yesterday morning. Unique to our process, we often don't have a lot of lengthy reports to give you. However, we have documented our progress to date and distributed it to most of the HAWG members. After the Council meeting today, we will convene the subcommittee again to investigate whether we can make any more progress towards our goal, or clarify what we have printed before us. I do have a dated handout stating where the HAWG is going and how it is going to get there; it essentially repeats what we have said in the past.

#### Agenda Item #8: Council discussion on the 1996 management season.

BOLEY: If we do get a reasonable number of Shasta River fish back, then we are looking at a fairly good 3 year old population in 1996 (coupled with the holdover 4's). This means that we will be back to harvest rate management again. For ocean fisheries, as long as we stay in that harvest rate regimen and if things don't change a whole lot, we might see more stability from year to year in our season structure. A season that meets the harvest rate goal for ocean fisheries in any one year should probably meet it again in the following year and the year after that.

WILKINSON: Scott and Dave, if we are faced with some more years of abundance, do you see a rebound in troll fishing permits?

BOLEY: My personal view point is that you will not see a major rebound in the total number of Oregon fishermen fishing, but you will see some increase. The safety requirements imposed on commercial vessels fishing on the high seas and the expenses associated with that have actually been a more effective deterrent to fishing than any other single factor. The vessels that are not fishing right now will be looking

at substantial cost (probably \$10,000) to get started. I don't see a lot of people jumping into the business.

BITTS: In California, the State wants to maintain 2,500 permits. We have typically had about 1,000 boats that did not fish. I suspect we are going to find that about 1,500 boats fished in '95 so the rate of participation in California is higher than in Oregon. The potential for new permits and new boats entering the fishery is basically nil, but any time there is an abundance of fish, especially if they are close to a port, then there is going to be a little surge in participation.

BOLEY: The California and Oregon fleets have somewhat different composition. The once massive coho fishery in Oregon led to vessels that were equipped to deal only with coho.

Agenda Item #9: Public Comment

None.

Action: Council assignments to KRTAT or identification of future discussion topics in regards to #3-9.

McISAAC: The assignment to our Tech Team is to look into the KOHM. We may also make an assignment to look into the appropriateness of the 35,000 floor.

Council discussion regarding review of KOHM:

McISAAC: We could ask the Technical Team to look at the disparity in the preseason estimate of Klamath fish in the sport and the commercial fisheries in the KMZ. They need to review: 1) Bodenmiller's memorandum (Attachment C), 2) the GSI data from this year and the previous year, 3) the sport fishery stock composition to see if there is bias in the model, and then, 4) if they do identify a bias, identify if there is a simple fix (i.e., is there a way to deal with the bias without having to go back and reconstruct the model to date)? The Team ought to expect the 1995 GSI results to be provided sometime in December. The processing laboratory "guarantees" the results by the end of February, but my Newport staff expects it as soon as the end of the year.

KIRK: This issue is more than technical, it is political. I think it is ultimately important that we have this assignment back from the TAT at least by March 5-7 when we meet in Eureka so that we can have informal discussion prior to the April meeting.

BOLEY: Within the PFMC framework, we would like to have notice if a technology change is on the horizon (e.g. is there going to be a change in the KOHM?). We would need to get this change into the review process as quickly as possible. There needs to be a link between the Klamath Technical Team and the STT so that the PFMC knows what is going on. The PFMC should be informed that there is technical work being done on this issue.

BARACCO: We need to ask our Technical Team to verify, ratify, modify or reject Bodenmiller's memo (Attachment C). I don't think it is any big deal to analyze the person's work. It might be more work in figuring out how to accommodate it or what to do about it relative to the KOHM. We need to list what we want the Tech Team to look at and they can tell us when they are going to do it or when they can do it and what tools they need to accomplish it.

BITTS: I would like to ask the Team to evaluate whether the application of the model to the troll fishery south of Arena has in fact been consistent with the output of the model as far as the distribution of the Klamath catch.

BOLEY: Another assignment could be looking into the disparity between the KMZ fisheries preseason expectation and post season realization of harvest for recreational and troll fisheries. This needs to be reviewed to see if there is a bias. If so, what is the easiest fix?

BARNES: In some years there were no tags recovered, so we may have a problem. Maybe the GSI data could be used for those little sections where there was a fishery. The timetable for delivery of this assignment will probably not coincide with your needs unless you are looking at the 1997 management year because, for one thing, from December on, the Tech Team is dedicated to meeting to work on the preseason prediction. Prior to December, we are compiling catch data from all the fisheries and reading CWT in our respective agencies. The Tech Team doesn't see this GSI data until December, so we wouldn't be meeting until late December. We probably wouldn't make it to report to you in March. Right about this time in 1996, we could sit here and discuss the results that you could apply to '97 management. We also need the peer review or the acceptance of the STT.

BARACCO: Part of this assignment can proceed immediately. That is that part of the assignment having to do with the assumed stock composition in the quota in the KMZ sport fishery (based on Bodenmiller's initial investigation of it). I would recommend that issues that are potential items for consideration for '96 management be completed no later than December 1, 1995, so that digestion and discussion with the STT and the SSC can occur during their meetings in January and early February. I don't really consider these model changes so much as ongoing discussions of improvements in your performance in relation to the modelling. I don't think that you'd have to do anything for the October meeting visavis a methodology change, but certainly those parts of it that can be accomplished rather quickly should occur prior to the time that the STT gets together in January.

BARNES: The TAT will probably meet again in early February.

McISAAC: The 1991 data is pretty interesting in that the KMZ sport fishery only turned out to be 10% Klamath fish, as opposed to the 25% we expected.

KAUTSKY: Off cycle meetings in July are where we take up these additional issues. For example, spawner deficit accounting was scoped during that period. We are deferring until the data will be in hand to do these new assignments.

KIRK: I appreciate the fact that the Tech Team is doing what they can. The Coalition will also be meeting to discuss the issue of possible bias in the KOHM.

BITTS: We also need the TAT to determine the suitability of the KOHM for managing the commercial fishery below Point Arena. Specifically, the situation is that while that whole area used to be considered as one cell, it has been divided into 3 sub areas for management purposes. It looks like it will continue to be divided in that manner. Is the model as it now stands suitable for that task? Is it being appropriately applied to that task?

BARACCO: Ask our Tech Team: Is the STT's analysis of Klamath impact south of Point Arena appropriate? We need to have the TAT look into the usual set of questions (e.g. do we use zero intercept, do we not use zero intercept, do we use straight line, do we use a curved line) and the bigger concern that Klamath impacts south of Point Arena are not being modeled properly within the KOHM.

Assignment: BITTS: Let's ask them to look at the past 3 to 5 years and the 3 management subareas: 1) Point Arena to Point Reyes, 2) Pt Reyes to Pt. San Pedro, and 3) Pt. San Pedro South.

Discussion regarding the spawning escapement floor:

GROVER: The whole idea of setting a floor was generated by the Department of Interior when the Klamath Act first passed. It was a way of insuring that the habitat restoration work being undertaken by the TF was matched with an adequate natural spawning population of fall chinook. The idea was kicked around that there had to be at least a minimum escapement level back into the Klamath system to justify to the Secretary and to Congress that funds should continue to be appropriated for restoration. The 35,000 fish was a figure that was identified as being the minimum critical mass of fish necessary to provide any amount of significant reproduction. It was never intended to be the final estimate on the number of fish needed in the system. The exact intent of what exactly the 35,000 fish meant was never clear.

Q: Don't we have a schedule for the TAT to review the spawning escapement floor sometime soon?

A: (McIsaac): Yes, the schedule is for the TAT to review it this year. Our aim was to have it happen after the '91 brood was complete (motion passed in September 1991).

- The steps are: TAT to collect all the brood year information, look at the recruitment relationship, give us an MSY estimate from that recruitment relationship, and identify sub-basin concerns that might exist because that recruitment relationship is an aggregate of the whole Klamath watershed. The Klamath Council would then have to decide what is an escapement floor number of critical mass and what is a minimum target for management purposes.
- The TAT could prepare a one page summary that reiterates the definition of the escapement floor.
- Later we will have the TAT address the concept of having two separate definitions -- one being the floor (non genetic) and the other being the management target.
- If we require an amendment to the fishery management plan then we will need to get the information ready to get into the Pacific Council's process for amendments.

Action: Let's ask staff to summarize the history and definition of the floor, then have the TAT and the Council look it over. (Refer to PFMC's amendment 9 and the "Recommended Spawning Escapement Policy for Klamath River Fall Run Chinook" by the Klamath River Technical Advisory Team (Feb. 1986). Note that the language in amendment 9 is ambiguous enough that it can be interpreted in a lot of different ways. Later this Council will come to some agreement on a statement that explains exactly what that number means so that there is an official version that is in plain English and unambiguous. Perhaps it would be better to only look at what this Council has produced and leave the information produced by the PFMC and the subcommittees alone for now.

McISAAC: Here are some of the elements of the spawner recruitment curve exercise:

- Include 1976 and every brood year up through 1993
- Recruits be defined as age 2 ocean population size. Dr. Hankin had an alternative method of doing the classic spawner recruitment analysis. His alternative was to correct for ocean survival and try to take that out of the status sheet. This method probably violates some of the assumptions of spawner recruitment analysis but I would be interested in seeing the Tech Team use his approach and see how much difference that makes. They would need to look in the package that he put together for that review. He got some coded wire tag collection rates of yearlings that could be a source of ocean variability.



Q: (BITTS): Don, how did you want spawners to be defined in the Team's assignment?

A: (McISAAC): My first reaction is to use the definition for natural spawners in the Klamath River as they have been accounted in the past. That has got all of that noise in there about hatchery fish and the aggregation of populations, but it would be consistent.

BARACCO: Some of the things that you want incorporated in the future analysis have already been rejected on a technical level by the Klamath River Technical Advisory Team. The major one being Dr. Hankin and Dr. Lords methodology of results for determining ocean mortalities. That report, I believe was paid for with TF monies. It was the general feeling of the TAT that it wasn't a very useful method. It was no more useful, in fact, than varying the maturity schedule. For example, if you vary the maturity schedule, you can set the ocean survival or you can vary the ocean survival and set the maturity schedule. I don't know why you would place all these micro-constraints on what basically is a re-analysis of the spawner recruit relationship in the Klamath Basin. The original spawner recruit relationship information was based on a whole bunch of assumptions and 6 brood years of data. Anything done now is going to be based on a whole bunch of assumptions and 13 brood years of data. The Klamath Tech Team, not necessarily the Council, should be able to decide what method they want to use next.

McISAAC: I was unaware that that investigation had taken place and that it had been rejected. Scratch that one off the list then. I don't want to constrain the Tech Team.

Q: Could the Team evaluate the use of the May 1 age 3 population as an alternative to the age 2 population if they were to find that that was a superior data point?

A: (McISAAC): That could be a component of the assignment.

McISAAC: Any other discussion on spawner recruits?

Assignment: Project the '93 ocean age two recruits from the '93 brood.

McISAAC: Are there any other assignments for the Tech Team to look at? Seeing none, is there any other further business for the Council before we adjourn? I don't see anybody new in the audience since the last public comment period so we will not have another comment period.

#### OTHER REPORTS

Agenda Item #10: Report on the late season fisheries off the Elk and Chetco Rivers.

McISAAC: The '95 late season fisheries were similar to '94. One thousand fish were caught in the sport quota and 1,000 were caught in the troll quota. There were 16 commercial boats participating in the fishery. The run was strong; 260 fish were caught in the first day of the sport fishery. Off the Elk River, the fishery again will be the same as the year before. Relatively small quota of 400 will begin the first of November. Most of the Council members may have received an ODFW Staff recommendation packet. The limited areas recommended by Staff were adopted exactly.

Q: (BARACCO): Does Oregon have any plans for gathering stock composition data on those fish?

A: (McISAAC): They are going to be sampled for coded wire tag information. There is not a genetic stock identification (GSI) effort in either of those two fisheries. For the Elk River area, don't see out of system tag codes. It is a very clean stock. The Chetco fishery does have mixed history of incidents of "not-Chetco" tags.

BARACCO: In relation to Klamath Management Zone recreational fishery, I don't know that the manager really has a good feel for the amount and kinds of data that would come out of these small fisheries. Even if we sampled the 400 fish at 100% rate, we are likely to encounter less than 10 tags.

Agenda Item #11: Report on ESA status review of salmon and steelhead. (McINNIS):

COHO: On July 25, 1995, the proposed listing for coho was published in the Federal register. This proposed threatened listing encompassed three geographic areas: 1) the central California coast (from Punta Gorda south to the San Lorenzo River (in the Santa Cruz area), 2) the northern California/southern Oregon coastal drainages (north from Punta Gorda to Cape Blanco) and 3) a unit on the Oregon Coast (from Cape Blanco to just south of the Wilson River). The first two units affect the area that this Council is involved in. These units are described by the NMFS's policy statements as ESU's. That proposal's public comment period ends October 23rd. There are hearings being held tonight at Gold Beach, near Santa Rosa on October 17 and on October 18 in Eureka, California. There are also hearings on October 17 in Portland, on the 18th in Olympia, and the 16th in Seattle. A final determination for listing these coho ESU's, will be due July 25th, 1996. There is strong potential that that schedule will be interrupted, Appropriations bills that have been passed in the House have prohibited any of our budget from being used for pre-listing or listing activities under the Endangered Species Act. So if similar bills hold true in the Senate and in the Conference Committees, then that will put the brakes on any further listing activities.

STEELHEAD: A proposed listing was published in March 1995 Federal Register. The ESU that was identified was the Klamath Mountain Province steelhead. That is, all the drainages from Cape Blanco southward down to and including, the Klamath Trinity drainage. That ESU was on a schedule ahead of the review for coast wide steelhead. Hearings have been held on that already in June and July of this year. Public comment closed in mid July and a final listing determination is due in March 1996 (with a couple of provisos). One proviso is that the west coast steelhead listing may catch up to the Klamath Province steelhead for the date of the final determination. If this occurs, the two could be combined. We have already been served with a notice that the Sierra Club legal defense fund intends to sue us. Naturally, we would like to keep it on schedule for that west coast steelhead listing. The second proviso on the Klamath Mountain Province steelhead final determination date is, that could also be affected by the budget process if we are precluded from spending any money on listing or prelisting activities.

WEST COAST CHINOOK SALMON: We received a petition in January 1995 to list all the west coast chinook populations, excluding Alaska, in the lower 48 states. The status review is in progress right now. The 12 month clock is running.

Q: Can you tell us anything about the status of this petition for west coast chinook for this Klamath area? Have you had some public meetings? What is the next step and could you give us a feel for the status of those considerations? Are you on schedule for January of 1996? Do you expect this Council to assist?

McINNIS: I haven't been directly involved in the consultations. The review has been conducted by the Northwest Fisheries Science Center, the NMFS's Northwest and Southwest Regional offices. I don't think NMFS has sat down to talk with the Tribes and the states on the information we have pulled together on chinook. That will be a phase that we will go through. As far as the January 1996 date, I am sure that we are on schedule. All of the parties involved in this Council will have an opportunity to look at our information, so I don't believe that the Council entity will need to respond.

Q: (McISAAC): Alan, are you aware of any DFG aggregations of information sent to the NMFS on California chinook?

BARACCO: No, my recollection is that they are really just beginning the chinook review. Stock determination and ocean distribution will be looked at by the Northwest Center.

Q: Could you explain the candidate status category?

McINNIS: The only status that is gained by a species that is proposed for listing as a candidate listing is that the Federal Agencies are encouraged to engage in conferencing activity. If any action of that Federal agency or any action permitted by that Federal agency is likely to affect the populations proposed for listing, then conferencing needs to occur. This is similar to the Section 7 Consultation process that is required for listed species, however, it is not binding.

McISAAC: The public comment period for coho closes October 23rd. Absent the potential Congressional budget constraints, there will be a final determination on the 25th of July, 1996. Can you give us an idea of what processes go on internally between the end of the public comment period and final determination?

McINNIS: Basically it is just reviewing the information that has been provided during public comment period and determining if there is any more information that we can use to make a final determination. It is not required that we use that full length of time. That date is essentially the outer bounds of the listing process. It could be that the final listing could be published before that.

GROVER: FWS also shares responsibility under ESA. Beginning in FY96, we are precluded from expending any money in the listing category or in any activity that would lead towards any final determination or coming up with a final rule as far as listing status. This is different guidance than we received in '95. In '95, we were given limited amounts so that when we had public hearings, we could collect the information, but, just keep it on file. Now, whatever information we get just goes in a file and we are prevented from paying anyone to pursue the listing process.

BITTS: I am beginning to understand that your agencies may be caught in a double bind; you cannot possibly comply with both the requirements of the ESA (to publish the listing) and the requirement that you cannot spend any money to publish the listing. Is that essentially correct?

A: (GROVER): Yes, that is pretty much it.

GROVER: The FWS is treated separately from NMFS because we operate under different committees for our appropriations. We have not yet been told not to proceed with listings.

McISAAC: Many of you are aware that the Oregon Fish and Wildlife Commission considered listing coho under the State ESA act. They concluded that coho did not warrant listing, so the State of Oregon is in a rebuttal mode to the Federal conclusion that listing should proceed.

Agenda Item #12: Report on Klamath River flows & temperatures.

BOB DAVIS, BOR, Klamath Falls: I work with Mike Bryan who asked me to pass on the information to you (3 handouts). Handout I (page 15 in the left hand corner) is a spread sheet that projected the water use by the Klamath Project. We expected 61% of average inflow after April 1st. The Klamath Project Operations Plan (KPOP) is an annual plan for the 1995 irrigation season. Also on Handout I, you will see the Iron

Gate computations. These are flows coming out of Iron Gate for various time periods. The FERC license schedule for Iron Gate is: a) 1,000 cubic feet per second (cfs) during May, b) then it goes down to 710 during June and July, c) then it starts back up in August at 1,000 and d) then in September through the rest of the year it is 1,300 cfs. On the first column of that same page, note that on October 16th to October 31st, we projected the elevation to be 4138.82. On Handout J, you'll notice that the actual lake elevation is very close to our projected figure. Actual = 4139.43, Oct. 1-15. Note that we achieved this goal and still delivered half a million acre feet of water to the refuge and agricultural users. It is good to have a lot of water and we did have a lot of water. Last year we had negative inflow for several periods of time and in the drought of 1992, we had negative inflow into the lake. Negative inflow occurs when evaporation and the amount being diverted is greater than what is coming into the lakes. The graph (Handout K) shows how the year compared with what we were projecting for this season. We plan to enter into January with an elevation on Upper Klamath Lake of 4140.59. Our operations are governed by a biological opinion issued July 22, 1992 to protect the two endangered suckers that reside within Upper Klamath Lake. It has some levels that we have to meet in the lake. The next lake level that we have to meet is going to occur in March for spawning. We really don't make firm projections for the water year until the first of April.

Agenda Item #4: Update on the status of the Trinity Restoration Program (Grover).

GROVER: There is a bill before the House that is being negotiated. It is my understanding that there will be a hearing in October, but no specific date was given. At best, there could be a three or more year reauthorization of the Trinity River Authorization Program. At worst, a one year reauthorization. The bill may authorize a three year extension or a seven year extension, depending on which version is approved. At worst, without the legislation being approved, there is money in the BOR's budget (through the Water and Science Committee) that would continue funding for operations and maintenance, construction, monitoring and work on the EIS. Dave, have you heard anything from your people?

BITTS: Jerry, I haven't heard anything very recently or seen a recent draft Bill. It was my understanding that progress had been made on the points over which we were at odds. I understood the commercial fishermen were giving conditional support to the draft bill but I haven't seen the draft bill so I don't know the specifics.

GROVER: I think we are pretty close to having agreement.

UPDATE: On November 29, we learned that a one year extension of the Trinity Restoration program had received authorization from the President. The proposed three year reauthorization bill (H.R. 2243) made it past the full House Resources Committee two weeks ago by unanimous vote. The bill is expected to go to the full House of Representatives requiring two-thirds vote for passage.

Public Comment Period.

No comments.

New Agenda Item: Continued monitoring of salmon populations.

WILKINSON: I would like the Klamath Restoration Program to identify information needs for monitoring salmon populations as policy. Proposals to collect information used in our harvest management arena should not be up for consideration for continued funding on an annual basis. The TF proposal review and ranking process should not be used to consider these proposals.

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WILKINSON: I would like the Klamath Restoration Program to identify information needs for monitoring salmon populations as policy. Proposals to collect information used in our harvest management arena should not be up for consideration for continued funding on an annual basis. The TF proposal review and ranking process should not be used to consider these proposals.

Q: (McISAAC): Are there some habitat issues that the TF would consider to be policy level and of ongoing priority?

WILKINSON: I am not really arguing with their process. A lot of energy went into developing the prioritized funding list. TF members delegate people to the TWG to try to even out the political/emotional side of funding for projection. It just alarmed me, as a KC member, to see the preliminary list of funded restoration projects and see where those items critical to our process fell out. The monitoring proposals were below the funding cut-off line.

BARACCO: How is this dissimilar to the situation on the Trinity? If the BOR had not stepped up and provided funding for the operation of the weir this year and funding for tagging the fish next year then it would have resulted in really serious ramifications for harvest rate management. This would have been worse than not having the age composition or data collection on how many fish are spawning in the mainstem of the Klamath. I want to make very certain that the Council's needs are represented in the proposed review and rating process.

McISAAC: I can try to represent this concern at an upcoming Four Chairs meeting. I could also emphasize that those people who serve in dual roles on the TF TWG and the KC Technical Advisory Team defend the importance of the monitoring proposals.

Agenda Item #15: Identification of agenda items for future meetings. Decide on date/s and location/s.

PARKER: In the past, the Klamath Council has met primarily just prior to the Pacific Council meetings. In the fall, you meet once and then in the spring, you meet at least 2 times: #1 to get the returns on what happened the previous year and to hear stock size projections, #2 to develop the harvest options, and #3 then to shape those options. The Pacific Council is scheduled to meet in Portland at the Columbia River Red Lion the week of March 11th and in South City at the Holiday Inn the week of April 8th.

McISAAC: Let's meet 3 times. Once to hear the technical information, again with regard to the fishing season, and again for last minute advice to the Pacific Council. This would mean meeting in February, March and April.

BOLEY: Last year, the HAWG performed quite a bit of the discussions that led to the season setting ideas during the same time frame of the Santa Rosa CDFG meeting. Hopefully, we can use that format again this year.

BARACCO: The projection of Klamath fall chinook stock strength for 1996 is produced by the Klamath Tech Team prior to the time that the STT meets (end of January or the first week of February). The STT should be done with their forecast and mail it out by February 16th, but people don't receive the information until the 26th or 27th. CDFG's Santa Rosa meeting will occur during the week of February 19th. There are some pieces of information, of course, that are not provided through the STT process that the commercial fishing folks need for season shaping.

BITTS: The people I represent need to have time to receive and absorb the stock projection information so they can decide what they want to do with it. If that information could be mailed to the Council members as soon as it is available, then maybe that would be an acceptable alternative to an actual meeting.

McINNIS: Dave, you'll get the information that you are seeking in the California DFG meeting in Santa Rosa.

McISAAC: One of the things we did not get from the Santa Rosa meeting and

certainly did not get at the Newport meeting, was an in depth discussion of options. In the past, we have had more discussion. Maybe a compromise situation could be for the HAWG to get together informally around the date of the Santa Rosa meeting to have more in depth discussions. This wouldn't be a full Council meeting (with all the expense), but key individuals would still be involved. I know that last year, discussions on the conservative nature of the 2 forecasts played a lot into our thinking and recommendations for seasons. I suggest people reserve some flexibility in their calendars to attend a meeting like last year's Santa Rosa meeting. Perhaps a subgroup of the Council might get together that week. This would allow people to come together and spend some time on the numbers that came out of 1995 and the forecasts for 1996. We should expect a full Klamath Council meeting the week of March 4th. My impression is most pile up situations of meetings running right into more meetings doesn't work very well. People aren't energetic enough in the evenings and if you don't have a strong recommendation coming in the very first day of the March meeting, it is too late for the Salmon Advisory Subpanel (SAS) to consider. This proposal for informal meeting is not an extreme cost cutting measure, but it does eliminate a full Council meeting yet still allow some depth of discussion on forecasts.

BARACCO: I agree with Don that if this Council wants to exert the maximum influence that it can on what you consider reasonable for Klamath allocation, that you should have discussion prior to the March meeting. We need to have recommendations to the SAS by Monday.

KIRK: Let's have our first meeting in Eureka so the public along the southern Oregon and Northern California coast can have access.

McISAAC: OK, I suggest we block out the 5th, 6th and 7th for a meeting in Eureka. We will start at about noon on Tuesday and end at about noon on Thursday.

Q: (BARACCO): Are we going to have that much business to block out 3 days? A 2 day meeting might be ample.

A: (McISAAC): It depends on what we give our Tech Team for their assignment and how long it takes for them to report back to us.

\*\* Action Items:

McISAAC: Everyone on the Council should expect a set of mailings during the week of February 19th. The HAWG should expect to meet in Santa Rosa near the DFG meeting and the Klamath Council will meet in Eureka March 5th, 6th and 7th. The Klamath Council will also meet in the afternoon (2 pm) of March 10th in Portland and the morning of April 8th in San Francisco. The purpose of our April meeting is to recommend one of those 3 options or develop other options.

Agenda Item #5 (continued): Identification of agenda items for future meetings.

McISAAC: We will ask staff to identify normal agenda items for those time frames. Are there any other agenda items for the next meeting?

No response.

New agenda item: Technical Team resources.

BARNES: The TAT has two new members: The new Yurok representative is Dave Hillemeier and NMFS replaced Robert Kope with Michael Prager.

BOLEY: Dr. Michael Prager has taken up his spot on the Klamath Technical Team and will assist with chinook modelling. He came to this coast from Miami where he

had been working on the bluefin tuna and on the International Convention of the Conservation of the Atlantic Tunas (ICCAT) Program. He came here to work on salmon because he got tired of politics. In addition to Mike Prager, NMFS has approval to hire 2 more people who will be involved in work that will support salmon management and salmon restoration activities. John Wilson has been replaced by Bob Jones.

KIRK: Mr. Jones was nominated to the Technical Team on 2 points; his interest in the recreational fishery and his stature in the community.

ADJOURN



## **Field trips arranged for Klamath Council**

**Tuesday, October 10**

### **Scott River Field Trip (Sari Sommarstrom):**

The Scott River produces a large proportion of the natural fall chinook salmon in the Klamath River system. In four of the last six years, the Scott was the largest contributor of natural fall chinook spawners in any Klamath tributary (excluding the Trinity) or mainstem reach. In 1994, severe low flow conditions in the Scott impeded access by spawners and the data shows that the Scott's count was lower than most other sections of the Klamath watershed.

On the field trip we will view habitat conditions (e.g. salmon spawning sites, riparian fencing/planting, bank protection, river flow) in the Scott River sub-basin.

**Wednesday, October 11**

### **Shasta River Field Trip (Dave Webb):**

The Shasta River has long been recognized as the single most important tributary of the Klamath Watershed from the perspective of salmon production. Spawner counts have been made since 1930. In 1931, 82,000 salmon returned to the Shasta River to spawn. In the early 1990's, as few as 530 returned. The future of much of the sport, commercial and tribal fisheries depends on successfully returning the Shasta River to production. An understanding of the history, land uses, opportunities and needs of the Shasta River is fundamental to decision making when restoration money is in short supply.

We will visit and discuss the counting weir, irrigation impoundment sites and their alternatives, irrigation tailwater recovery, a cattle exclusion fence, and the river near Big Springs.

**Friday, October 13**

### **Bogus Creek Fish Counting Facility (Mark Pisano):**

The Bogus Creek Fish Counting Facility has been operated annually by the Department of Fish and Game (DFG) since 1981. The counting facility is located on Bogus Creek approximately 0.5 miles upstream of the confluence with the Klamath River. The purpose of the counting facility is to provide a complete count of the number of fall chinook salmon migrating upstream past the facility. Staff from DFG operate this station from mid-to-late September until late October or early November. Coho salmon and steelhead runs continue beyond this time-frame so the data collected on these species are incomplete.

For the 1995 season, the facility will operate as a marking station. An estimate of the total number of fish in Bogus Creek above the counting facility will be developed from the recovery of spawned out fish that had been marked at the counting facility. This change of operation (from previous years) is an effort by DFG to increase efficiency. More details about the new procedures will be explained to us on site.

Klamath River Fishery Management Council  
October 12, 1995  
Yreka, California

Klamath Fishery Management Council members present:

David Bitts	Calif. Commercial Salmon Fishing Industry
Scott Boley	Pacific Fishery Management Council
Alan Baracco (for LB Boydston)	California Department of Fish and Game
Virginia Bostwick	Calif. In-River Sport Fishing Community
Dale Webster (for Troy Fletcher)	Non-Hoopa Indians Residing in the Klamath Conservation area
Jerry Grover	U. S. Department of the Interior
Paul Kirk	California Offshore Recreational Fishing Industry
Rod McInnis	National Marine Fisheries Service
Pliny McCovey, Sr.	Hoopa Indian Tribe
Donald McIsaac	Oregon Department of Fish and Wildlife
Keith Wilkinson	Oregon Commercial Salmon Fishing Industry

Others

Bob Davis	United States Bureau of Reclamation
Rich Dixon	California Department of Fish and Game
Dave Hillemeier	Yurok Tribe
Ron Iverson	U. S. Fish and Wildlife Service
George Kautsky	Hoopa Valley Tribe
Judy McDaniel	U. S. Fish and Wildlife Service
Erik Nobel	Klamath County
Tricia Parker	U. S. Fish and Wildlife Service
Ronnie M. Pierce	Self
Mark Pisano	California Department of Fish and Game
Michael Rode	California Department of Fish and Game
Della Smith	U. S. Fish and Wildlife Service

DRAFT AGENDA  
Klamath Fishery Management Council  
October 10-13, 1995  
Miners Inn Convention Center, Yreka, CA  
Meeting #42

**Tuesday, October 10**

**Field trip to the Scott River sub-basin**

- 1:00 pm Meet at the Miners Inn. Announcement of field trip schedule and logistics (Parker). Load into vans for transportation to Scott Valley.
- 1:45 pm Meet with Scott River CRMP Coordinator Sari Sommarstrom in Fort Jones
- 2:00-5:00 Field trip to view habitat conditions (e.g. salmon spawning sites, riparian fencing/planting, bank protection, river flow).
- 6:00 Dinner in Etna or Yreka (group choice)

**Wednesday, October 11**

- 8:00 Convene Harvest Allocation Work Group meeting (Wilkinson)
- 11:00 Adjourn

**Field trip to the Shasta River sub-basin**

- 11:00 am Announcement of Shasta River sub-basin field trip schedule and logistics. Brief slide show overview.
- 11:30 Depart for field trip in vans with Dave Webb, Shasta River CRMP Coordinator. Visit habitat improvement projects such as fencing and tailwater recovery project sites. View examples of habitat conditions and see the salmon counting racks. Along the way, we will stop for lunch in the town of Montague.
- 5:00 Return to Yreka -- Miners Inn.

Thursday, October 12

8:00 am **Convene Klamath Council meeting.**  
Introduce members. Review background materials (Parker).

ADMINISTRATION

1. Review and approve agenda.
2. Approve minutes of meetings held March 1, April 2, and April 5.
3. Report from members on re-appointment status
4. Update on status of Trinity Restoration Program (Grover)

TECHNICAL REPORTS

- 9:00 5. Status of KRTAT assignments:
- a. identification of funding for Trinity monitoring program
  - b. analyze the performance of the harvest rate model -- schedule to be announced
  - c. analyze the appropriateness of the spawning escapement floor -- schedule to be announced

Break

1995 MANAGEMENT SEASON

- 10 :00 6. Retrospective on 1995 season (tribes, agencies, trollers, sport fishing representatives)

Lunch

1996 MANAGEMENT SEASON

- 1:30 7. Report from the Harvest Allocation Work Group (Wilkinson)
8. Council discussion

Break

- 3:00 9. Public comment

Action: Council assignments to KRTAT or identification of future Council discussion topics in regards to agenda items #3-9

## OTHER REPORTS

10. Report on late season fisheries off Elk River and Rogue River (McIsaac)
11. Report on ESA status review of salmon and steelhead (McInnis)
12. Report on Klamath River flows/temperature (Ryan, Rohde)
13. Council discussion
14. Public comment
15. Identification of agenda items for future meetings. Decide on date/s and location/s.

5:30 Adjourn

## **Friday, October 13:**

### **Field trip to Iron Gate Hatchery and Bogus Creek**

- 9:00 am Depart Yreka for Iron Gate Hatchery (45 minute trip in cars)
- 10:00 Brief overview of the hatchery (Kim Rushton/Curt Hiser, Hatchery Manager)
- 10:30- 11:30 Walk to Bogus Creek counting racks (20 minutes on nature trail). View natural spawning and learn about the 1995 counting measures that are designed to get a better estimate of hatchery straying (Mark Pisano, CDFG Fishery Biologist)
- noon Depart

List of handouts given out at the meeting:

- A. July 21, 1995 letter to Patterson from McIsaac regarding Trinity River salmon monitoring in '96
- B. August 28, 1995 letter to Raysbrook from Patterson regarding continued funding of tagging and monitoring tasks
- C. September 27, 1995 letter to McIsaac from Bodenmiller regarding KOHM predicted Klamath River fall chinook stock composition in the KMZ area
- D. Status Report of the 1995 Ocean Salmon Fisheries off WA, OR, and CA. (PFMC 8/95)
- E. CDFG Weekly Angler Summary; Weekly Fish Counts for Shasta River and Bogus Creek
- F. Yurok Reservation Harvest 1995 (preliminary data)
- G. Hoopa Net Harvest through 10/7/95
- H. Trinity River fish run data
- I. Upper Klamath Lake Projected Elevations/Appendix 2
- J. Upper Klamath Lake Projected Elevations/Projected Inflow Operations
- K. Upper Klamath Lake '95 Operations - End of Month Elevations

Please contact KRFWO if you would like a copy of any of these documents.

July 21, 1995

Mr. Roger Patterson  
Director, Mid-Pacific Region  
U.S. Department of the Interior  
2800 Cottage Way (MAP-720)  
Sacramento, CA 95825-1898

RE: Trinity River Salmon Monitoring for 1995

Mr. Patterson:

Collection of in-river run data for Klamath Basin fall Chinook is essential for mitigation assessment and fisheries management coast-wide, especially in areas managed for Klamath impacts. In 1995, necessary data will be collected by federal, state, and tribal agencies for the Klamath River portion of the Klamath Basin. For the past ten years, collection of Trinity River fishery data was accomplished by California Department of Fish and Game (CDFG) with funding from the Trinity River Restoration Program. In FY 1995 funding is uncertain. Given the essential need for these data, the Klamath River Fishery Management Council is examining alternatives by which the 1995 in-river run data for the Trinity may be collected. The KFMC has directed the Klamath River Technical Advisory Team (KRTAT) to provide an estimate of the scope and cost of the essential monitoring program needed for Trinity Basin in 1995.

The KRTAT has concluded that continuation of weir operations, as pursued in the past 18 years, is the most cost effective and accurate method for estimating fall Chinook in-river run-size for the Trinity River. This conclusion is based on analysis and comparison of the following alternatives: (1) correlation of hatchery fall Chinook returns with total natural escapement as estimated from weir data, (2) correlation of upper Trinity Basin natural area carcass surveys with weir based estimate of natural escapement, (3) correlation between Trinity and Klamath River natural escapement, and (4) correlation of Hoopa Valley Tribal Fishery harvest with weir estimated natural escapement. All of these alternatives were rejected because of the unacceptable degree of error associated with their estimation.

The KRTAT further concluded that several other activities of the ongoing Trinity River monitoring program remain essential for the management of Klamath Basin fall Chinook salmon. These activities are: (1) coded wire-tagging (cwt) and recovery, (2) fish scale collection and aging, and (3) estimation of recreational fishery harvest. In total, these efforts including the Trinity River weir, when coupled with similar continuing efforts on the Klamath River, provide the basis for fishery management and

## DEPARTMENT OF FISH AND GAME

Inland Fisheries Division  
Trinity River Project  
5341 Ericson Way  
Arcata, CA 95521-9209  
(707) 822-0328 Fax (707) 822-2855



July 19, 1995

Mr. Jerry Barnes  
U.S. Forest Service

Dear Jerry:

This is the revised (from the March 13, 1995 letter) cost estimates for continuing our salmon and steelhead project in the Trinity River basin. Costs include staff benefits where appropriate and administrative overhead. The estimates are based on actual costs in prior years.

This revised estimate assumes that we would not be refilling the position left vacant by the transfer of our Weaverville biologist. With the reduced staffing, our reports would be brief data reports. We would not be able to produce the comprehensive reports of previous years.

The reduced staffing may also require the one-time expenses of relocating an employee. This possibility would need further evaluation.

Please note that with the exception of coho salmon and steelhead, this is a "package deal". For chinook, the various components (weirs, TRH recovery, and CWT) are interdependent and it would make no sense to eliminate individual items.

Note that the costs associated with coho and steelhead monitoring are relatively low. This is because our infrastructure is in place and it is simply a matter of extending trapping and recovery seasons a little beyond that required for fall chinook. Considering the sensitivity of these species, I think it is important to continue monitoring their status.

Sincerely,

*Mark Zuspan*

Mark Zuspan, Project Leader  
Trinity River Project

cc: Ralph Carpenter (IFD, Sacramento)  
George Kautsky (Hoopa Valley Tribal Fisheries Department)



**DRAFT**

Department of Fish and Game cost estimates for continuation of Trinity River salmon and steelhead monitoring. Federal Fiscal 95-96 (October 1, 1995 - September 31, 1996)

**Fixed Costs:**

Item	Cost	Description	Function
Personnel	187,486	2 Biologists and 1 technical position.	Supervise all field operations and maintain field equipment. Edit, validate, analyze, and make timely reports detailing salmon and steelhead runs in the Trinity River basin.
Office costs	24,000	Shared office expenses based on proportioning costs between three projects.	Provide general office support.
Vehicle operations	2,160	Vehicle Insurance	Insurance for project vehicles (3 at \$60/month)
Per-diem	6,500	Personnel training and development, conference attendance, inter- and intra-departmental and agency meetings.	Maintain / develop professional skills, maintain coordination within and between departments and agencies.
<b>Total:</b>	<b>220,146</b>		

**Spring and fall chinook run-size, spawner escapement and harvest estimates:**

Item	\$ Cost	Description	Function
Junction City Weir (JCW)	53,000	JCW to operate mid-May through mid-November. Costs include seasonal aid time and operating expenses.	JCW is used to trap and tag adult migrating spring chinook. It also is used to make independent fall chinook estimates. Scales are collected and forwarded to U.S.F.W.S. for age analysis
Willow Creek Weir (WCW)	43,000	WCW to operate mid-August through mid-November. Costs include seasonal aid time and operating expenses.	WCW is used to trap and tag adult migrating fall chinook. Scales are collected and forwarded to U.S.F.W.S. for age analysis
Trinity River Hatchery (TRH) recovery	14,600	TRH recovery to operate September through November. Costs include seasonal aid time and operating expenses.	Tagged and untagged chinook are noted and biological data collected. Heads from coded-wire tagged fish are collected for use in determining the numbers of spring and fall chinook entering TRH. This activity is also a necessary component of the coded-wire tagging operations below. Scales are collected and forwarded to U.S.F.W.S. for age analysis
<b>Totals:</b>	<b>110,600</b>		

**Coded-wire Tagging (CWT) spring and fall Trinity River Hatchery Chinook:**

Item	\$ Cost	Description	Function
Coded-wire tags (CWTs)	43,000 ✓	600,000 CWTs	Tag 200,000 each fingerlings and 100,000 each yearling spring and fall chinook. Analysis of adult returns is used to evaluate hatchery effectiveness, determine the numbers of spring and fall chinook entering the hatchery (for producing run-size estimates) and performing cohort reconstruction needed for estimating ocean populations and resulting harvest allocations.
Operating expenses	21,000 ✓	Seasonal aid time and operating expenses.	Supports the coded-wire tagging operations.
Totals:	64,000		

**Coho salmon run-size, harvest, and spawner escapement, and hatchery evaluation:**

Item	\$ Cost	Description	Function
Weir operations	7,800 ✓	Extend weir trapping seasons two to three weeks. Includes seasonal aid time and operating expenses.	Trap and tag coho salmon migrating after fall chinook migration is complete.
TRH recovery	3,500 ✓	Extend recovery at TRH one month (through December)	Recover tagged and untagged coho entering TRH through their spawning period.
CWT operations	10,400 ✓	CWT 50,000 coho. Costs include seasonal aid time and operating expenses.	Evaluation of TRH coho program. Recovery of CWTs included in TRH recovery above.
Totals:	21,700		

**Fall steelhead run-size, harvest, and spawner escapement, and hatchery evaluation:**

Item	\$ Cost	Description	Function
Weir operations	4,400 ✓	Extend weir trapping seasons one to two weeks. Includes seasonal aid time and operating expenses.	Trap and tag steelhead migrating after coho migration is complete.
TRH recovery	2,100 ✓	Extend recovery at TRH three month (January-March).	Recover tagged and untagged steelhead entering TRH through their spawning period. Collect data needed to evaluate steelhead production at TRH.
Totals:	6,500		

Grand Total (all components)	422,946
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# United States Department of the Interior

BUREAU OF RECLAMATION  
 Mid-Pacific Regional Office  
 2800 Cottage Way  
 Sacramento, California 95825-1898

AUG 28 1995

IN REPLY  
 REFER TO:  
 MC-104  
 ENV-4.10

Mr. Charles Raysbrook  
 Interim Director  
 California Department of Fish and Game  
 1416 Ninth Street  
 Sacramento CA 95814

Subject: Continued Funding of Tagging and Monitoring Tasks

Dear Mr. Raysbrook:

A meeting was held on July 31, 1995, at the Trinity River Hatchery (TRH) with the California Department of Fish and Game (CDFG), Reclamation, and the Hoopa Valley Tribe (Tribe) to identify tagging and monitoring tasks needed for continued management of the Trinity River fishery.

Currently, the Tribe is working in partnership with CDFG to mark fish at the TRH. The Tribe has requested continued CDFG cooperation and assistance to deploy the Willow Creek weir during mid-August. CDFG has informed Reclamation that CDFG's participation for the remainder of fiscal year 1995 (until October 1, 1995) is contingent upon a funding commitment from Reclamation to support the CDFG tagging and monitoring efforts through fiscal year 1996.

The purpose of this letter is to inform you of Reclamation's commitment to fund both fish marking and monitoring tasks that are scheduled for the remainder of fiscal years 1995 and 1996 and are subject to Congressional approval. It is our understanding that the Tribe and CDFG have agreed to their continued partnership and will share the workload as agreed by the two parties, provided that funding is available.

Formal agreements with the Tribe and CDFG will be promulgated in the near future. However, Reclamation requests that CDFG assist the Tribe with the completion of tasks scheduled for fiscal year 1995 and assist with the installation of the Willow Creek weir.

Please contact Serge Birk at (916) 529-3890 with any questions you may have regarding this matter.

Sincerely,

*Roger Patterson*  
 ACTING FOR  
 Roger Patterson  
 Regional Director

cc: See next page

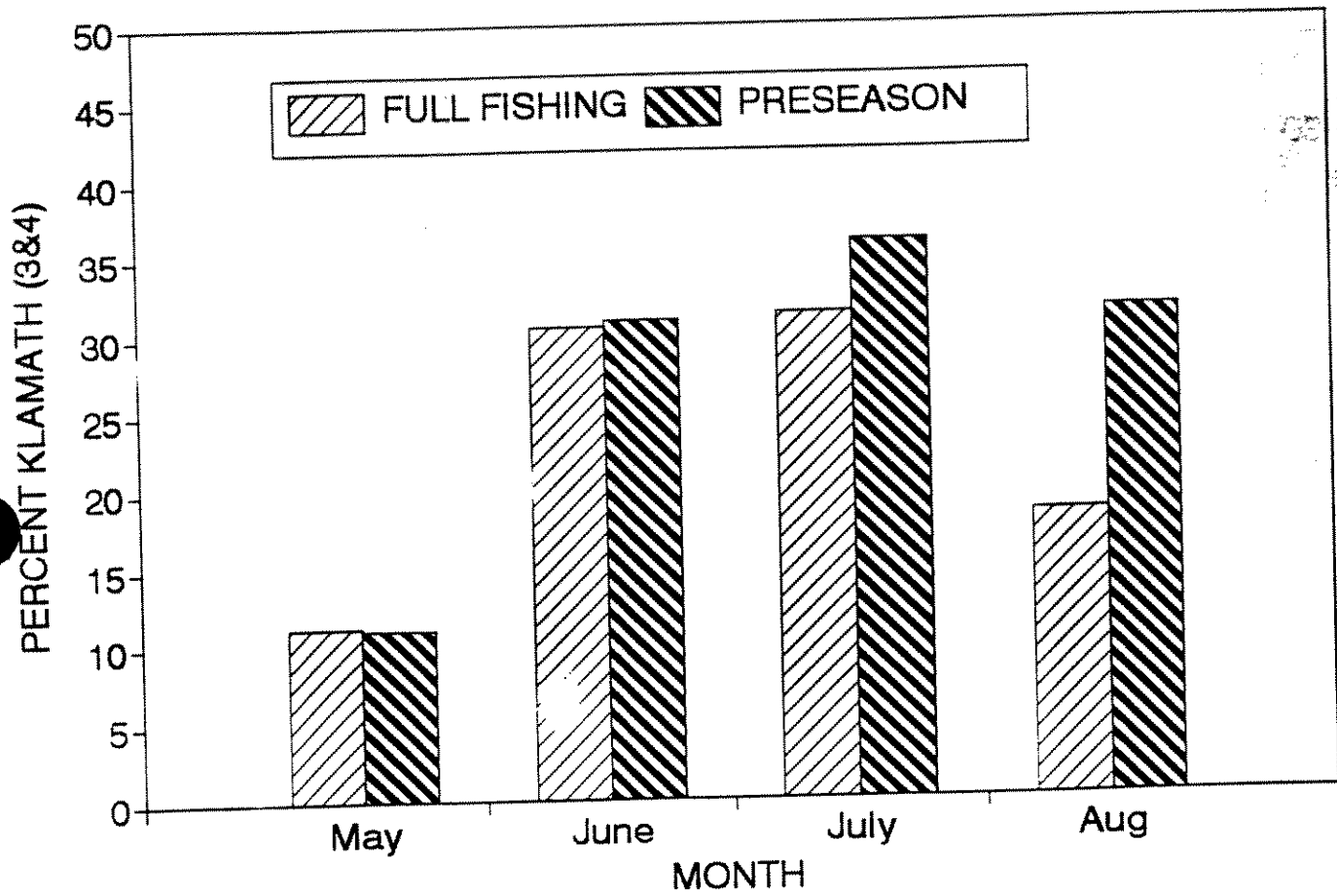


Figure 2. A comparison of monthly percent Klamath chinook (3&4) expected in the 1995 KMZ commercial troll fishery between scenarios of non-restricted fishing south of Cape Falcon and the adopted regulations based on KOHM.

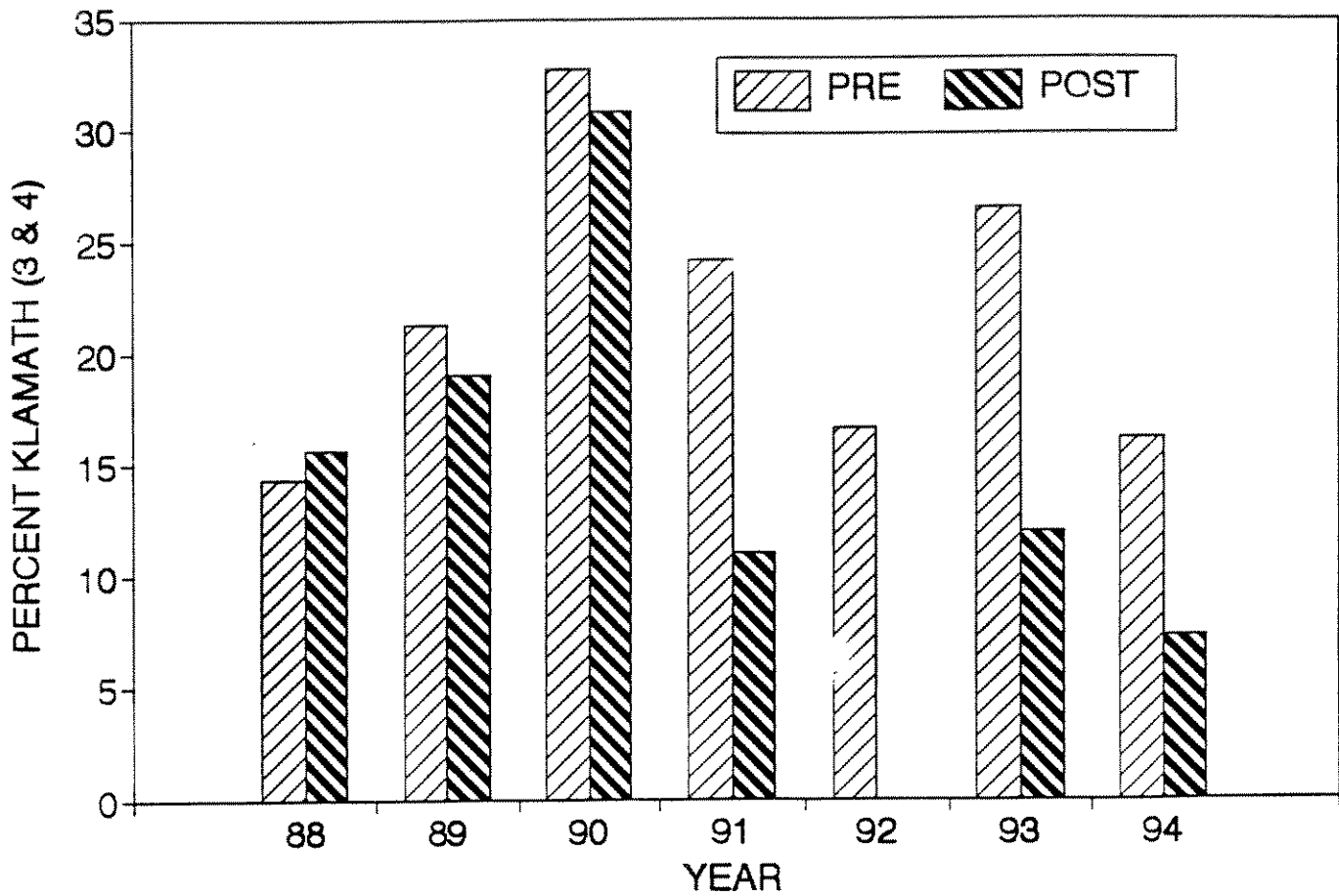


Figure 3. A comparison of preseason and postseason estimates of percent Klamath chinook (3&4) in the KMZ May-August recreational fishery, 1988-1994.

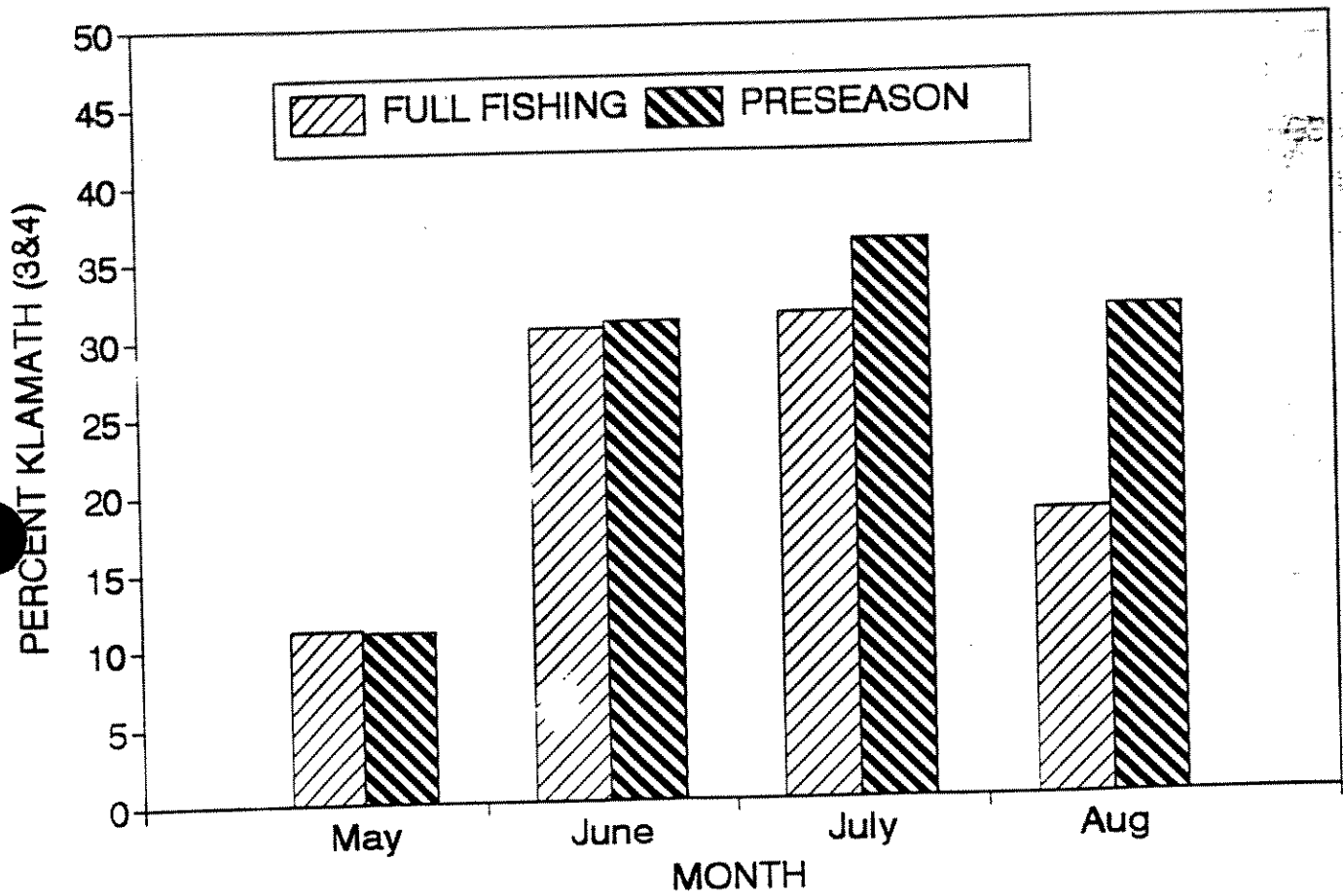


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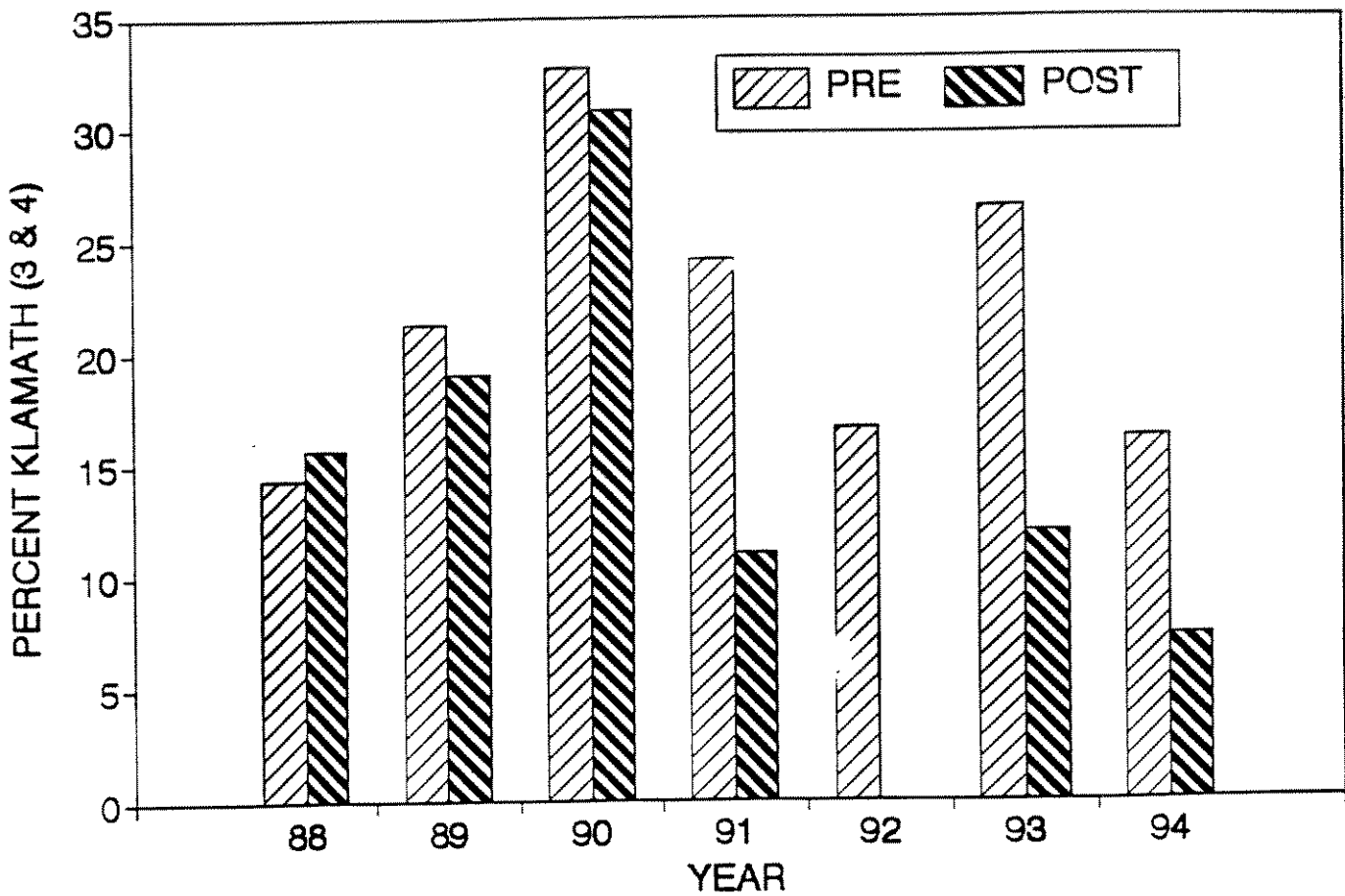


Figure 3. A comparison of pre-season and post-season estimates of percent Klamath chinook (3&4) in the KMZ May-August recreational fishery, 1988-1994.

OREGON DEPARTMENT OF FISH AND WILDLIFE MEMORANDUM

DATE: September 27, 1995  
TO: Don McIsaac  
FROM: Don Bodenmiller  
SUBJECT: KOHM predicted Klamath River fall chinook stock composition in the KMZ area.

Concern was expressed about the performance of the Klamath Ocean Harvest Model (KOHM) in predicting Klamath River fall chinook stock composition in the Klamath Management Zone (KMZ) during the 1995 preseason Klamath impact assessment process. Fishers perceived that fisheries outside the KMZ area excessively influenced, in this case increased, the predicted percent Klamath stock within the KMZ area.

I compared the monthly predicted percent Klamath chinook (3's and 4's combined) in the KMZ area between scenarios of non-restricted ocean fishing south of Cape Falcon (full fishing; exploitation rates at 1.0) and the adopted 1995 regulations (Figures 1 and 2). The expected percent Klamath stock was higher in July and August under the adopted regulation scenario. Some increase in the percent Klamath stock should be expected in these later months as ocean fisheries were structured to achieve a 9 percent Klamath ocean exploitation rate on age 4 fish and allow access and consequently higher exploitation rate on the CVI stock. Whether the revised Klamath stock composition is excessive remains questionable.

Concern was further expressed that an apparent over-prediction in percent Klamath stock in the KMZ area in recent years may be due to the mechanism in KOHM used to adjust monthly stock composition. I compared preseason and postseason annual estimates of percent Klamath (3's and 4's combined) for the KMZ May through August recreational fishery (Figure 3). The estimated percent Klamath stock postseason compared surprisingly well with preseason estimates during the more intensive south of Cape Falcon fisheries from 1988 through 1990 (age-4 harvest rate average of 50 percent). Postseason estimates of percent Klamath stock during the 1991 through 1994 period of restricted fisheries (age-4 harvest rate average of 10 percent) were substantially less than preseason estimates.

Certainly the over-prediction of Klamath River fall chinook in recent years is a factor in this difference between preseason and postseason estimates. Sample size due to few Klamath CWT recoveries is probably also a factor. How much of this difference in recent years is due to the mechanism in KOHM used to adjust the monthly Klamath stock composition remains unknown.

I recommend this issue be addressed at the Klamath Council meeting in October and the Klamath technical team investigate.

c. ODFW - Bohn, Jacobs, Kaiser, King, Lawson, McPherson, Vargas  
Others - Barnes, Baracco, Boley, Henry, Rawson



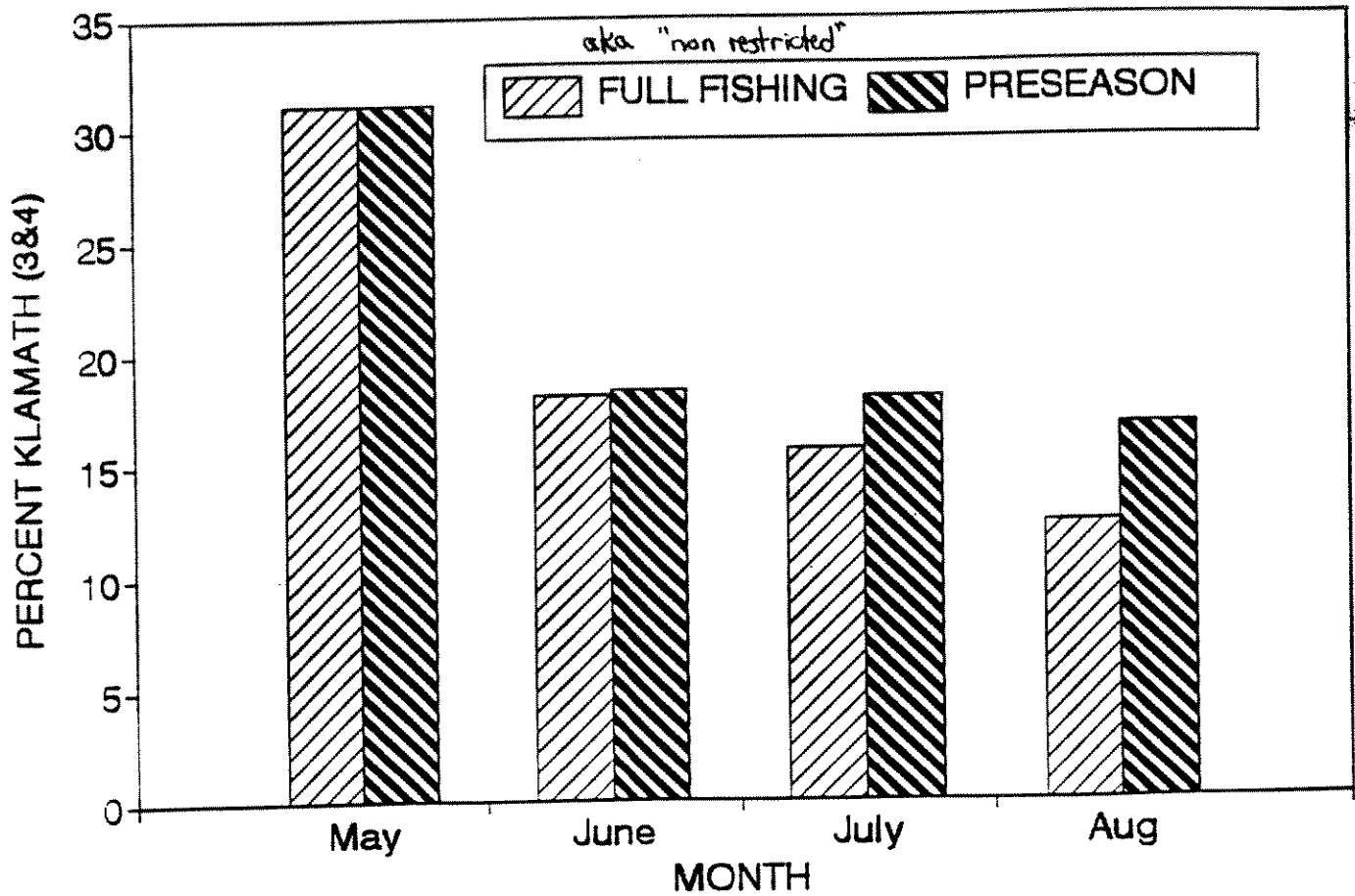


Figure 1. A comparison of monthly percent Klamath chinook (3&4) expected in the 1995 KMZ recreational fishery between scenarios of non-restricted fishing south of Cape Falcon and the adopted regulations based on KOHM.

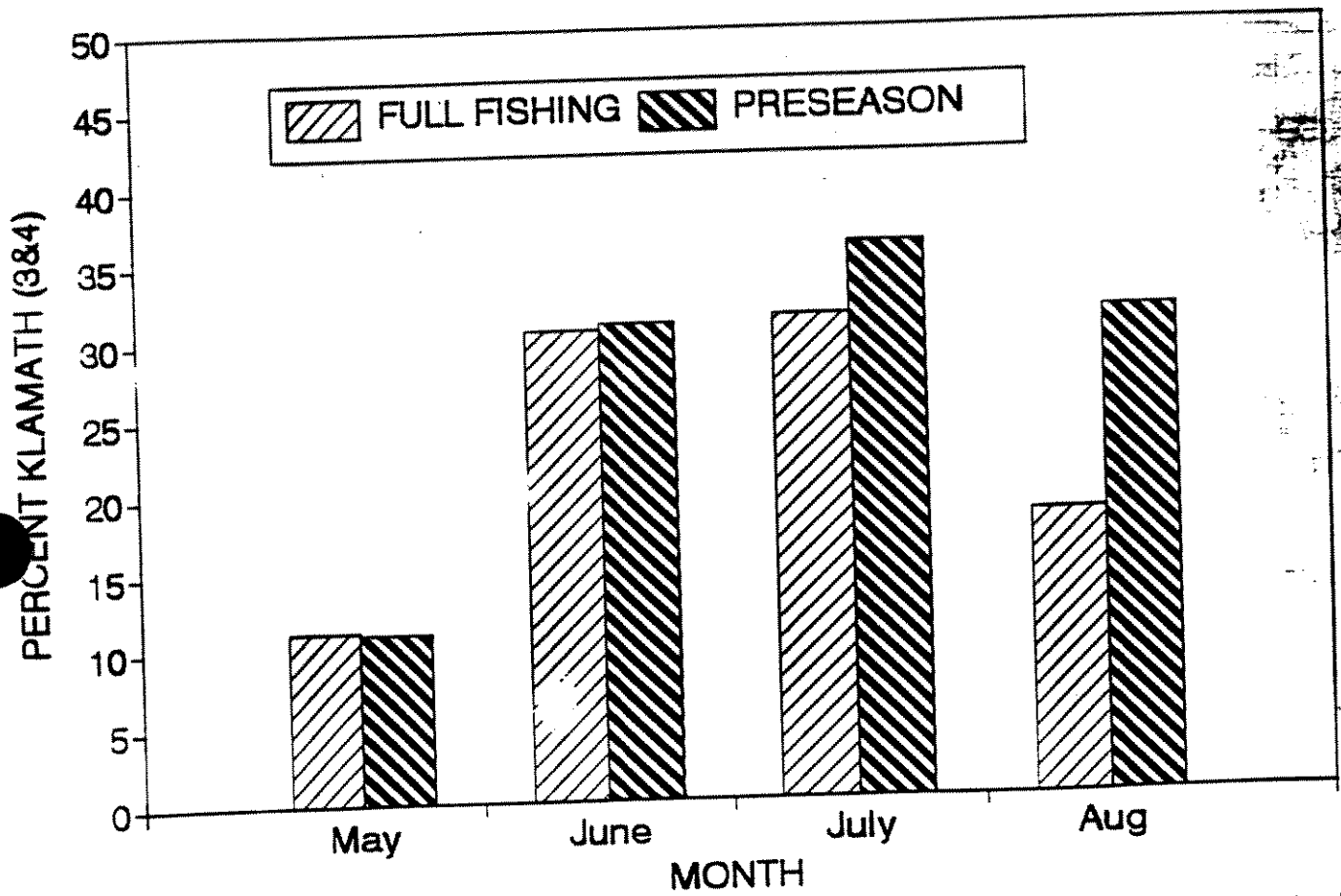


Figure 2. A comparison of monthly percent Klamath chinook (3&4) expected in the 1995 KMZ commercial troll fishery between scenarios of non-restricted fishing south of Cape Falcon and the adopted regulations based on KOHM.

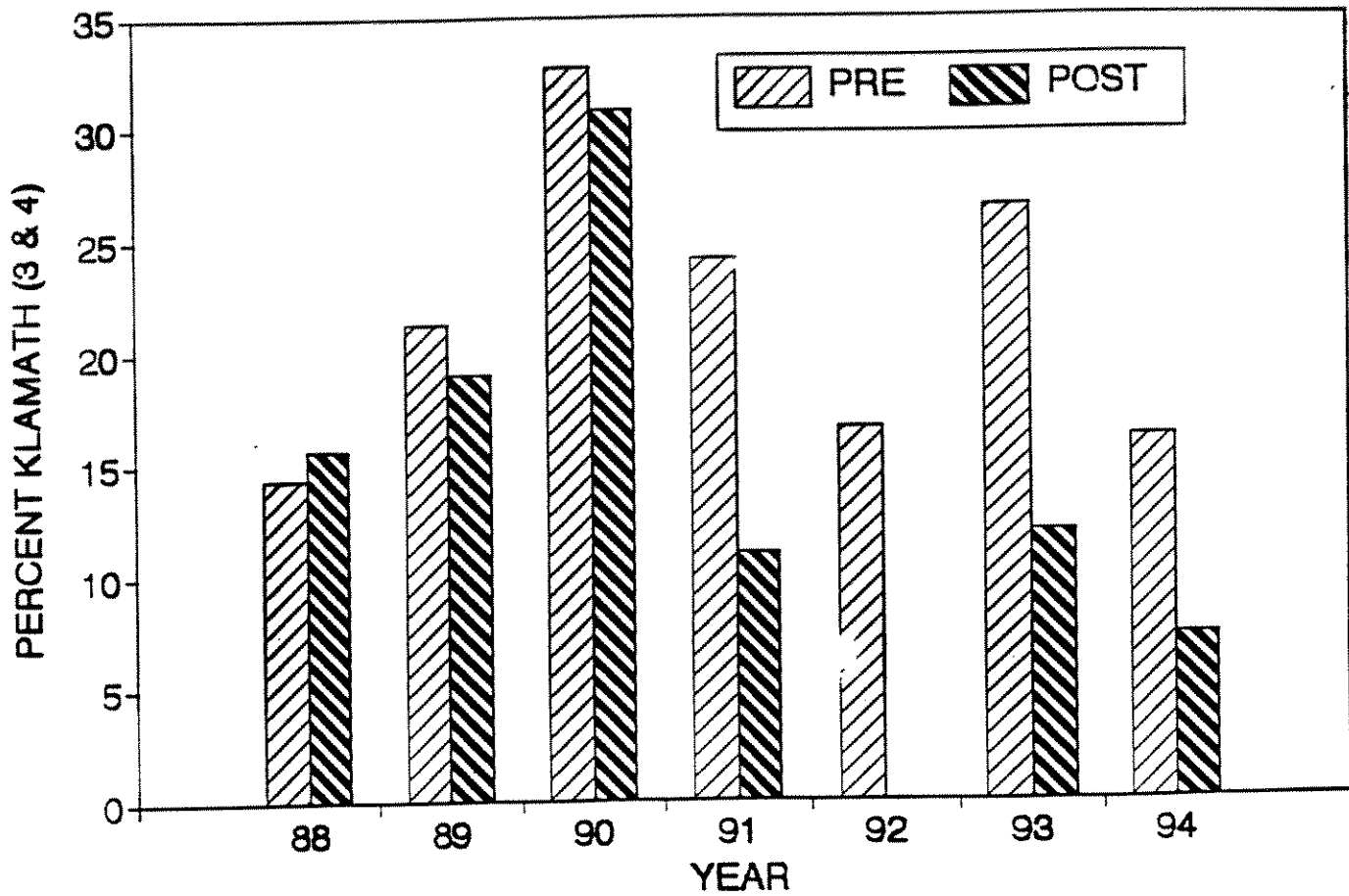


Figure 3. A comparison of pre-season and post-season estimates of percent Klamath chinook (3&4) in the KMZ May-August recreational fishery, 1988-1994.

Supplemental Attachment C.1.b  
August 1995

STATUS REPORT OF THE 1995 OCEAN SALMON FISHERIES OFF WASHINGTON,  
OREGON AND CALIFORNIA THROUGH JULY COMPARED TO  
CATCHES IN 1994 AND 1993

Catch data in this report are derived from both hard and soft data systems and should be regarded as very preliminary. Some totals may not add up due to rounding.

Pacific Fishery Management Council

South San Francisco, California

August 15, 1995

TABLE 1. Summary of 1995 PRELIMINARY Ocean Salmon Catches through July by Fishery and State with Comparative Catches in 1994 and 1993.

Species	State	-----Catch to Date-----		
		1995	1994	1993
<b>CHINOOK</b>				
-----				
Troll:				
WASHINGTON:				
	Non-Indian	0	0	27,600
	Treaty Indian a/	1,700 (700)	5,500 (4,400)	24,500 (18,000)
	State Total:	1,700	5,500	52,100
OREGON:				
	No.C.Falcon	0	0	300
	So.C.Falcon	48,900	16,800	47,900
	State Total	48,900	16,800	48,300
CALIFORNIA:				
	No. Pt.Delgada	0	0	0
	Ft. Bragg	0	0	400
	So. Pt. Arena	675,000	241,500	206,900
	State Total	675,000	241,500	207,300
<b>GRAND TOTAL TROLL</b>		<b>725,600</b>	<b>263,800</b>	<b>307,700</b>
-----				
Recreational:				
WASHINGTON:				
		100	0	3,400
OREGON:				
	No.C.Falcon	<50	0	300
	So.C.Falcon	2,100	2,200	3,200
	State Total	2,100	2,200	3,500
CALIFORNIA:				
	No. Pt.Delgada	8,300	9,000	2,600
	Ft. Bragg	14,100	9,500	3,600
	So. Pt. Arena	299,000	102,200	75,900
	State Total	321,400	120,500	82,200
<b>GRAND TOTAL RECREATIONAL</b>		<b>323,600</b>	<b>122,700</b>	<b>89,100</b>
<b>GRAND TOTAL BOTH</b>		<b>1,049,200</b>	<b>386,500</b>	<b>396,800</b>

a/ Numbers in parentheses are for catches from May 1 through July.

CALIFORNIA DEPARTMENT OF FISH AND GAME  
KLAMATH RIVER PROJECT

Preliminary Fall Chinook Salmon Weekly Angler Summary  
Lower Klamath River - 1995 Season

Week ending	Angler trips	Angler hours	Chinook salmon catch		Total
			Grilse	Adult	
<u>Mouth to Highway 101 Bridge (Area 1)</u>					
12-Aug	1,506	3,983	18	25	43
19-Aug	1,715	5,464	38	112	150
26-Aug	2,611	8,769	31	379	410
2-Sep	2,399	7,303	12	945	957
9-Sep	1,109	3,595	84	1,884	1,968
16-Sep	438	1,274	48	2,157	2,205
23-Sep	386	1,313	39	1,373	1,412
30-Sep	123	256	0	21	21
7-Oct	224	812	12	203	215
Area 1 sub-totals	10,511	32,769	282	7,099	7,381
<u>Highway 101 Bridge to Coon Creek Falls (Area 2)</u>					
12-Aug	352	1,301	12	16	28
19-Aug	784	2,578	187	93	280
26-Aug	1,336	5,172	319	269	588
2-Sep	1,735	7,145	143	360	503
9-Sep	1,504	6,118	446	1,561	2,007
16-Sep	1,149	5,319	492	2,293	2,785
23-Sep	889	3,742	179	1,078	1,257
30-Sep	623	3,255	48	357	405
7-Oct	317	1,780	77	623	700
Area 2 sub-totals	8,689	36,410	1,903	6,650	8,553
Weekly totals	541	2,592	89	826	915
1995 Season totals	19,200	69,179	2,185	13,749 <sup>a</sup>	15,934
Comparative 1994 season totals <sup>b</sup>	15,379	54,764	1,392	3,420	4,812

<sup>a</sup> Includes adult chinook harvested and caught and released

<sup>b</sup> 1994 season ended 30 September.

Number of adult chinook salmon harvested below the falls at Coon Creek Falls this season:	<b>1,341</b>
Number of adult chinook remaining in quota below Coon Creek Falls:	<b>-441</b>
Number of adult chinook caught and released after implementation of size restrictions:	<b>12,408</b>

**Notes:**

- A) 1995 season began 6 August  
 B) A size limit, restricting the harvest of adult chinook salmon, went into affect Friday evening August 25, 1995. Anglers were permitted to take adult chinook on Saturday and Sunday of Labor Day weekend.

CALIFORNIA DEPARTMENT OF FISH AND GAME  
 KLAMATH RIVER PROJECT

**Preliminary Weekly Fish Counts for Shasta River - 1995 Season**

Week Ending	<u>Chinook</u>			<u>Coho</u>			<u>Steelhead</u>		
	Adult	Grilse	Total	Adult	Grilse	Total	Adult	1/2 lb	Total
Sept 23	42	0	42	0	0	0	2	0	2
Sept 30	224	15	239	0	0	0	0	0	0
Oct 7	2,970	79	3,049	0	0	0	0	0	0

Cumulative Season Total	3,236	94	3,330	0	0	0	2	0	2
1994 Season Totals	685	374	1,059	4	0	4	0	0	0

\*/ Began operating 17 September 1995.

**Preliminary Weekly Fish Counts for Bogus Creek - 1995 Season**

Week Ending	<u>Chinook</u>			<u>Coho</u>			<u>Steelhead</u>		
	Adult	Grilse	Total	Adult	Grilse	Total	Adult	1/2 lb	Total
Sept 30	5	0	5	0	0	0	0	0	0
Oct 7	9	0	9	0	0	0	0	0	0
Cumulative Season Total	14	0	14	0	0	0	0	0	0
1994 Season Totals	264	15	279	0	0	0	0	0	0

\*/ Began operating on 24 September, 1995. Beginning this season, the Bogus Creek fish counting facility is being operated as a marking weir 4 hours/day, seven days/week. Salmon spawning ground surveys began the week of 9 October to recover fish previously marked at the weir.

CALIFORNIA DEPARTMENT OF FISH AND GAME  
 KLAMATH RIVER PROJECT  
 Preliminary Weekly Fish Counts for Iron Gate Hatchery - 1995 Season

Week Ending	Adult	<u>Chinook</u>		Adult	<u>Coho</u>		<u>Steelhead</u>		
		Grilse	Total		Grilse	Total	Adult	1/2 lb Total	
Sept 23	78	0	78	0	0	0	0	0	
Sept 30	311	0	311	0	0	0	0	0	
Oct 7	1,912	8	1,920	0	0	0	0	0	
<hr/>									
Cumulative Season		8	2,309	0	0	0	0	0	
Totals	2,301								
<hr/>									
1994 Season		56	3,384	0	0	0	0	0	
Totals	3,328								

\* Began operating on 21 September, 1995.



Preliminary Data

## YUOK RESERVATION HARVEST -- 1995

SPRING FISHERY

2700 SPRING CHINOOK  
 52 STEELHEAD  
 116 GREEN STURGEON

FALL FISHERY \*

MANAGEMENT AREA	SUBQUOTA	DATE SUBQUOTA REACHED
ESTUARY	4836	06-Sep-95
MID-KLAM	2418	26-Sep-95
UP-KLAM	4836	07-Oct-95

\* 200 FALL CHINOOK RESERVED FOR POLE AND LATE FALL FISHERY

## SUMMARY OF FALL CHINOOK HARVEST

WEEK OF:	ESTUARY		MID-KLAM		UP-KLAM	
	WEEKLY	CUMULATIVE	WEEKLY	CUMULATIVE	WEEKLY	CUMULATIVE
08-Aug-95	165.5	165.5	2.0	2.0	0.0	0.0
15-Aug-95	356.9	522.4	14.0	16.0	6.0	6.0
22-Aug-95	1286.7	1809.1	34.0	50.0	356.3	362.3
29-Aug-95	2924.3	4733.4	628.2	678.2	761.0	1123.3
05-Sep-95	81.8	4815.2	571.7	1249.9	890.4	2013.7
12-Sep-95	148.4	4963.6	644.0	1893.9	813.9	2827.6
19-Sep-95	7.0	4970.6	548.7	2442.6	1060.0	3887.6
26-Sep-95	88.2	5058.8	0.0	2442.6	532.2	4419.8
03-Oct-95	42.0	5100.8	0.0	2442.6	168.8	4588.6
					+ 50	+ 50

Note: This does not deduct approximately 172 grilse that were harvested.

### CATCH PER EFFORT IN THE ESTUARY

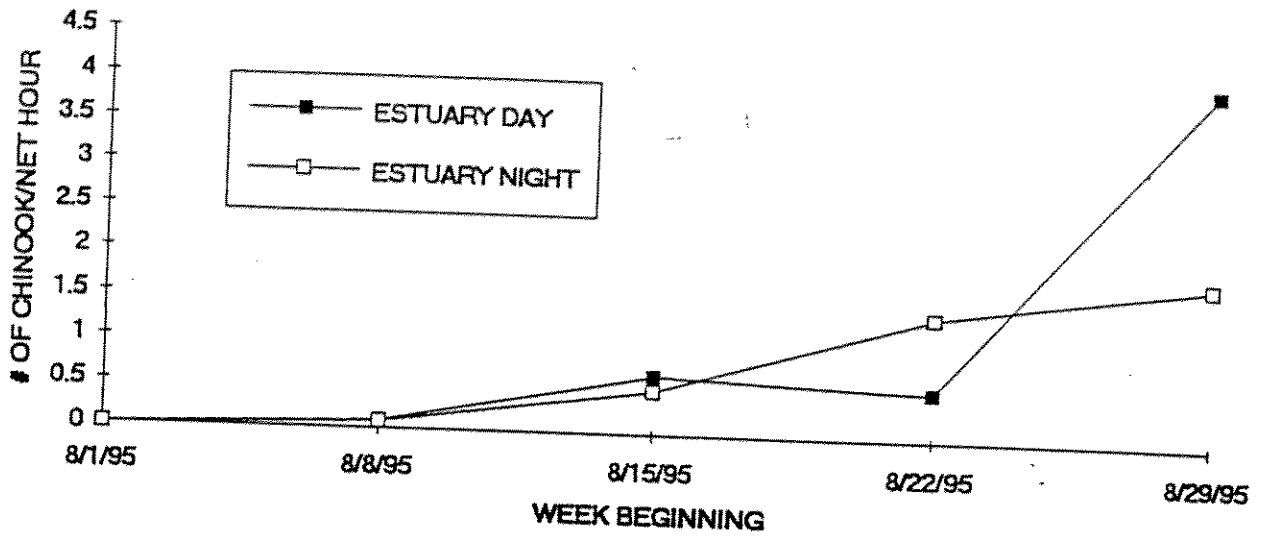


Figure 1. Average weekly catch/effort (# of chinook per net hour) during the day (7:00 a.m.-7:00 p.m.) and night (7:00 p.m.-7:00 a.m.) in the Estuary on the Yurok Indian Reservation, 1995.

### CATCH PER EFFORT IN THE MID-KLAM AND UP-KLAM

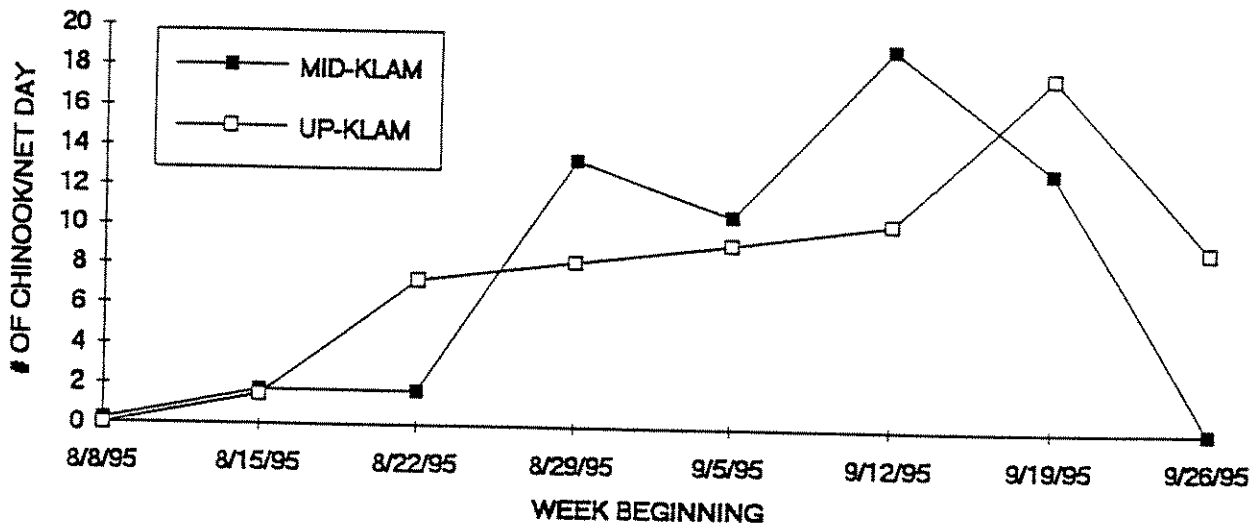
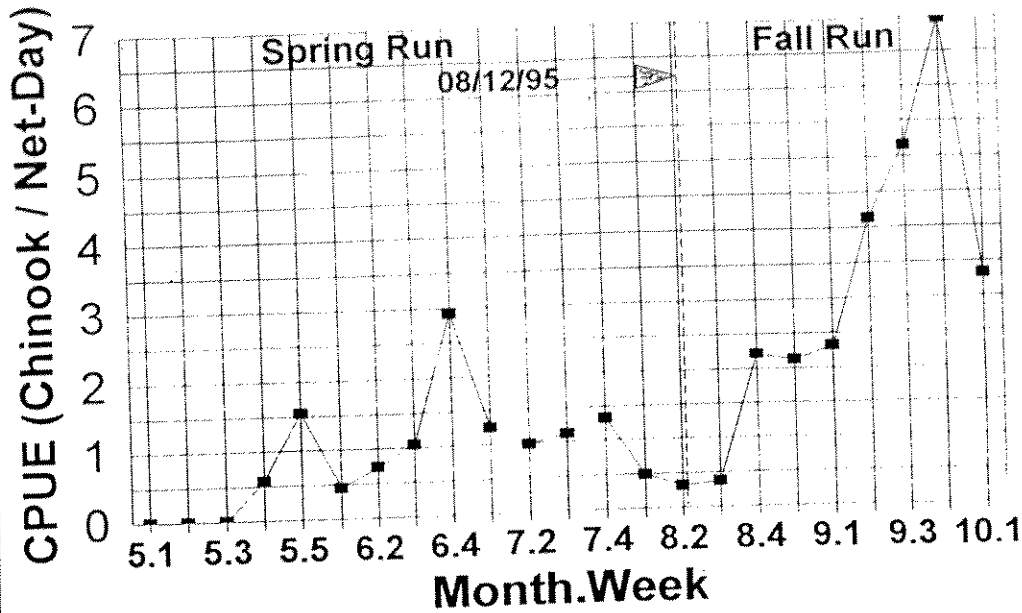


Figure 2. Average weekly catch/effort (# of chinook per net day) in the Middle Klamath (101 Bridge to Surpur Creek) and Upper Klamath (Surpur Creek to Weitchpec) Management Areas on the Yurok Indian Reservation, 1995.

## Hoopa Net Harvest through 10/07/95 Chinook CPUE



### Net Harvest Data 1995

Period Date End	Date Code	Chinook Catch	Jack Catch	Adult Catch	Cumulative Adults	Period Effort	Cumulative Effort	CPUE
05/06/95	5.1	0	0	0	0	10.50	10.50	0.00
05/13/95	5.2	0	0	0	0	14.00	24.50	0.00
05/20/95	5.3	0	0	0	0	11.70	36.20	0.00
05/27/95	5.4	44	3	41	41	77.00	113.20	0.57
06/03/95	5.5	74	6	68	109	47.88	161.08	1.55
06/10/95	6.1	53	4	49	158	119.00	280.08	0.45
06/17/95	6.2	73	5	68	226	99.80	379.88	0.73
06/24/95	6.3	93	7	86	312	89.30	469.18	1.04
07/01/95	6.4	327	24	303	615	112.00	581.18	2.92
07/08/95	7.1	153	11	142	757	122.50	703.68	1.25
07/15/95	7.2	154	11	143	900	155.40	859.08	0.99
07/22/95	7.3	143	11	133	1033	128.33	987.41	1.12
07/29/95	7.4	97	7	90	1123	73.50	1060.91	1.32
08/05/95	8.1	39	3	36	1159	80.50	1141.41	0.48
08/12/95	8.2	17	1	16	1175	53.70	1195.11	0.32
08/19/95	8.3	12	1	11	11	32.70	32.70	0.37
08/26/95	8.4	227	17	210	221	102.70	135.40	2.21
09/02/95	8.5	178	13	165	386	84.00	219.40	2.12
09/09/95	9.1	223	16	207	593	96.30	315.70	2.32
09/16/95	9.2	833	61	772	1365	201.60	517.30	4.13
09/23/95	9.3	1001	73	928	2293	194.30	711.60	5.15
09/30/95	9.4	828	61	767	3060	136.50	848.10	6.07
10/07/95	10.1	349	26	323	3383	105.00	953.10	3.32

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date run:10/06/95

DATE	CHINOOK (ad-clips) 2/		COHO (ad-clips) 2/		STEELHEAD		WATER TEMP				
	GRILSE 3/	ADULT	TOTAL	GRILSE 4/	ADULT	TOTAL	1/2LB	ADULT	TOTAL	LOW	HIGH
10/02/95	13	164 ( 12)	177 ( 12)	0	0	0	0	3	3	57.0	62.0
10/03/95	8	138 ( 4)	146 ( 4)	0	1	1	0	5	5	59.0	62.0
10/04/95	14	137 ( 9)	151 ( 9)	1	3 ( 1)	4 ( 1)	3	7	10	57.0	58.0
10/05/95	9 ( 1)	96 ( 4)	105 ( 5)	1	2 ( 1)	3 ( 1)	0	7	7	56.0	59.0
10/06/95	6 ( 1)	98 ( 7)	104 ( 8)	0	4	4	0	0	0	57.0	59.0
<b>TOTALS</b>	50 ( 2)	633 ( 36)	683 ( 38)	2	10 ( 2)	12 ( 2)	3	22	25		

SEASON	TOTALS	GRILSE 3/	ADULT	TOTAL	GRILSE 4/	ADULT	TOTAL	1/2LB	ADULT	TOTAL	LOW	HIGH
1994 5/	792 ( 24)	3,664 (209)	4,456 (233)	3	12 ( 2)	15 ( 2)	7	100	107			
1994 5/	527 ( 39)	1,257 (118)	1,784 (157)	4 ( 1)	1	5 ( 1)	21	368	389			

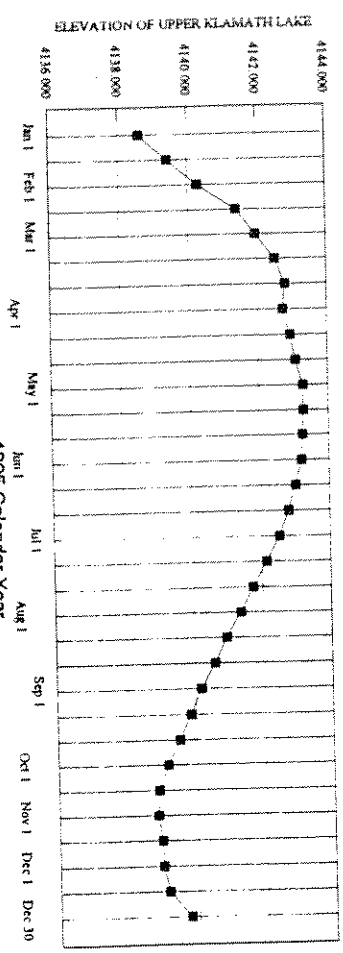
NOTES:

- 1/ Summary based on real-time unedited data. Not to be used for analysis.
- 2/ Numbers in parenthesis (if any) are adipose fin-clipped fish and are included in the counts and totals shown.
- 3/ Provisionally, chinook grilse are fish < or = to 55 cm fork length.
- 4/ Provisionally, coho grilse are fish < or = to 55 cm fork length.

Month	Actual & Projected Lake Elevation EOP	Actual & Projected Lake Storage EOP	Actual & Projected Inflow AF	Average Inflow AF	Projected Percent of Avg Inflow	Actual & Projected Outflow AF
<b>1995</b>						
DEC 31, 1994	4138.58	185,840	65.90	68.46	96%	18.50
JAN 1-15	4139.40	221,040	73.00	73.00	100%	12.10
JAN 16-31	4140.27	281,940	90.50	75.00	121%	7.70
FEB 1-15	4141.38	384,740	53.30	65.00	82%	7.70
FEB 16-28	4141.95	410,340	50.00	57.70	87%	4.20
MAR 1-10	4142.50	458,140	80.90	57.70	140%	55.60
MAR 11-20	4142.80	481,440	72.30	63.45	114%	78.30
MAR 21-31	4142.73	475,440	57.23	57.23	100%	39.54
APR 1-10	4142.93	493,132	45.78	57.23	80%	33.67
APR 11-20	4143.08	505,246	45.78	57.23	80%	29.24
APR 21-30	4143.27	521,888	27.41	44.94	61%	27.24
MAY 1-10	4143.27	521,966	27.41	44.94	61%	30.24
MAY 11-20	4143.24	516,078	30.15	49.43	61%	31.38
MAY 21-31	4143.20	500,452	15.76	25.83	61%	35.38
JUN 1-10	4143.02	480,825	15.76	25.83	61%	31.38
JUN 11-20	4142.79	459,198	15.76	25.83	61%	40.38
JUN 21-30	4142.52	424,550	7.73	12.68	61%	37.79
JUL 1-10	4141.72	391,902	8.51	13.95	61%	40.74
JUL 11-20	4141.35	362,821	8.05	13.19	61%	34.74
JUL 21-31	4140.92	303,243	8.05	13.19	61%	37.72
AUG 1-10	4140.56	274,375	8.85	14.51	61%	35.79
AUG 11-20	4140.16	250,893	12.30	20.17	61%	35.79
AUG 21-31	4139.83	227,412	12.30	20.17	61%	35.79
SEP 1-10	4139.49	203,930	12.30	20.17	61%	35.79
SEP 11-20	4139.15	185,249	24.50	40.16	61%	43.18
SEP 21-30	4138.87	181,625	26.13	42.84	61%	29.76
OCT 1-15	4138.82	190,089	33.12	54.30	61%	24.68
OCT 16-31	4138.94	191,514	33.12	54.30	61%	31.68
NOV 1-15	4138.96	203,096	40.26	66.00	61%	28.68
NOV 16-30	4139.13	246,040	42.94	70.40	61%	31.26
DEC 1-15	4139.76					
DEC 16-31						
<b>Total March-December</b>			<b>770.16</b>			

Date	Flow	Days	Total in Acre-feet (1000 AFE)	Notes
JAN 1-15	2,800	10	55.54	See Actuals on page 2
JAN 16-31	2,000	10	39.67	See Actuals on page 2
FEB 1-15	1,500	10	29.75	See Actuals on page 2
FEB 16-28	1,000	10	19.84	See Actuals on page 2
MAR 1-10	1,000	10	19.84	See Actuals on page 2
MAR 11-20	1,000	10	21.82	See Actuals on page 2
MAR 21-31	1,000	11	14.08	See Actuals on page 2
APR 1-10	1,000	10	14.08	
APR 11-20	1,000	10	14.08	
APR 21-30	1,000	10	14.08	
MAY 1-10	1,000	10	14.08	
MAY 11-20	1,000	10	14.08	
MAY 21-31	1,000	11	15.49	
JUN 1-10	710	10	14.08	
JUN 11-20	710	10	14.08	
JUN 21-30	710	10	14.08	
JUL 1-10	710	10	14.08	
JUL 11-20	710	10	14.08	
JUL 21-31	710	11	15.49	
AUG 1-10	1,000	10	19.84	
AUG 11-20	1,000	10	19.84	
AUG 21-31	1,000	11	21.82	
SEP 1-10	1,300	10	25.79	
SEP 11-20	1,300	10	25.79	
SEP 21-30	1,300	10	25.79	
OCT 1-15	1,300	15	38.68	
OCT 16-31	1,300	16	41.26	
NOV 1-15	1,300	15	38.68	
NOV 16-30	1,300	15	38.68	
DEC 1-15	1,300	16	41.26	
DEC 16-31	1,300	16	41.26	

UPPER KLAMATH LAKE PROJECTED ELEVATIONS



Appendix 2  
80% Exceedance Operations

Month	Accretions to the Klamath			Irrigation			It's		Keno Release	Total Draft	Status	Comments
	Diversion Channel	Pump F.F.F	Klamath Balance	Diversion Channel	Adj/North Canal	A Canal	Release	Release				
JAN 1-15	11.13	0.55	19.19	0.00	4.81	0.00	36.48		10.50	Actual	900 cfs Min flow below Iron Gate	
JAN 16-31	8.02	3.13	18.97	0.00	9.43	0.00	33.79		12.10	Actual	900 cfs Min flow below Iron Gate	
FEB 1-15	8.29	1.57	27.31	0.00	11.49	0.00	33.38		7.70	Actual	900 cfs Min flow below Iron Gate	
FEB 16-28	2.89	5.41	13.22	0.00	6.15	0.00	23.07		7.70	Actual	900 cfs Min flow below Iron Gate	
MAR 1-10	7.27	6.05	13.37	0.00	3.75	0.00	27.14		4.20	Actual	900 cfs Min flow below Iron Gate	
MAR 11-20	19.83	8.02	29.59	0.00	2.21	0.00	110.83		55.60	Actual	900 cfs Min flow below Iron Gate	
MAR 21-31	10.72	10.61	16.64	0.00	0.99	0.00	115.28		78.30	Actual	FERC Min or above for the of the year	
APR 1-10	6.00	4.00	8.00	0.00	2.00	0.00	55.54		39.54			
APR 11-20	2.00	4.00	8.00	0.00	2.00	6.00	39.67		33.67			
APR 21-30	1.00	4.00	8.00	0.00	2.00	10.49	29.75		29.24			
MAY 1-10	0.00	4.00	8.00	1.00	4.00	14.40	19.84		27.24			
MAY 11-20	0.00	4.00	8.00	4.00	4.00	14.40	19.84		30.24			
MAY 21-31	0.00	4.00	8.00	5.00	4.00	14.40	21.82		33.22			
JUN 1-10	0.00	2.00	7.00	6.00	3.00	17.30	14.08		31.38			
JUN 11-20	0.00	2.00	7.00	10.00	3.00	17.30	14.08		35.38			
JUN 21-30	0.00	2.00	7.00	10.00	6.00	17.30	14.08		38.38			
JUL 1-10	0.00	2.00	6.00	9.00	6.00	19.30	14.08		41.38			
JUL 11-20	0.00	2.00	6.00	5.00	6.00	19.30	15.49		40.38			
JUL 21-31	0.00	2.00	6.00	7.00	5.00	18.90	19.84		37.79			
AUG 1-10	0.00	2.00	6.00	1.00	5.00	16.90	19.84		40.74			
AUG 11-20	0.00	2.00	6.00	2.00	5.00	16.90	21.82		34.74			
AUG 21-31	0.00	2.00	6.00	3.00	5.00	16.90	25.79		37.72			
SEP 1-10	0.00	2.00	7.00	3.00	4.00	12.00	25.79		35.79			
SEP 11-20	0.00	2.00	7.00	3.00	4.00	12.00	25.79		35.79			
SEP 21-30	0.00	2.00	7.00	3.00	4.00	12.00	25.79		35.79			
OCT 1-15	0.00	2.50	10.00	0.00	2.00	15.00	38.68		43.18			
OCT 16-31	1.00	2.50	10.00	0.00	2.00	0.00	41.26		29.76			
NOV 1-15	1.00	4.00	12.00	0.00	3.00	0.00	38.68		24.68			
NOV 16-30	1.00	4.00	14.00	0.00	10.00	0.00	38.68		31.68			
DEC 1-15	1.00	5.00	14.00	0.00	10.00	0.00	41.26		28.68			
DEC 16-31	1.00	5.00	14.00	0.00	10.00	0.00	41.26		31.26			
TOTALS	82.15	106.35	337.20	79.00	150.83	271.19	1028.40					
Agricultural & Refuge Totals					501.02							

Pacific Power Substation Precipitation since October 1, 1994

Month	Actual PP&L Precip.	Summation of Precip.	Summation of Average Precip.	Percent of Average Precip.
Oct	0.16	0.16	1.06	15%
Nov	3.61	3.77	2.85	132%
Dec	0.93	4.70	4.89	96%
Jan	3.38	8.08	6.85	118%
Feb	0.31	8.39	8.27	101%
Mar	3.05	11.44	9.51	120%
Apr		11.44	10.34	111%
May		11.44	11.31	101%
Jun		11.44	12.10	95%
Jul		11.44	12.40	92%
Aug		11.44	12.79	89%
Sep		11.44	13.36	86%

NOTES

The Natural Resources Conservation Service snowfall sites show that the Klamath Basin is at 84% of normal as of March 9. The present storm systems should increase that percentage significantly. Since March 1, the PP&L Substation has reported over 1.63" of precipitation.

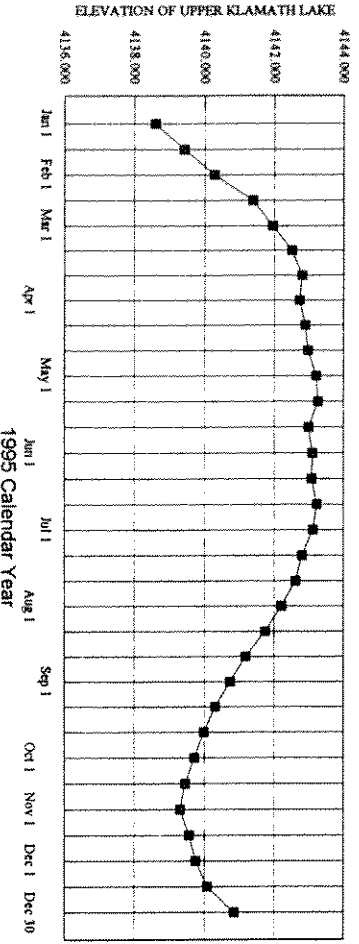
Explanation of Columns:

- Diversion Channel - Amount of water that is diverted from the Lost River to the Klamath River below Link River Dam and above Keno Dam.
- Pump F-FF - Amount of water that is returned to the Klamath River from the Lower Klamath Lake area including the Wildlife Refuges
- Klamath Balance - This amount represents accretions to the Klamath River that are not readily quantified, such as, misc. Infiltrates above Iron Gate Dam, irrigation demand over which Reclamation has no control and springs along the river
- Diversion Channel - During the summer months it is necessary to divert water from the Klamath River system to the Lost River system for delivery to project lands. The amount represents a draft on the Klamath River.
- Ady/Koth Canals - These canals divert water from the Klamath River for delivery to the Lower Klamath Lake area. Refuge water is delivered through the Ady Canal.
- A Canal - This canal is the main diversion from Upper Klamath Lake for the project. Water diverted through this canal is delivered directly and indirectly to all other districts within the project that rely upon upper Klamath Lake
- Iron Gate Release - This represent the total flow in acre-feet below Iron Gate Dam to the Klamath River. The amount is transferred to this column from Page 1, Iron Gate Computations

Month	Actual & Projected Lake Elevation EOP	Actual & Projected Lake Storage EOP	Actual & Projected Inflow AF	Average Inflow AF	Actual & Projected Percent of Avg Inflow	Actual & Projected Outflow AF
1995						
DEC 31, 1994	4138.58	185,840	65.90	68.46	96%	10.50
JAN 1-15	4139.40	221,040	73.00	73.00	100%	12.10
JAN 16-31	4140.27	281,940	90.50	75.00	121%	7.70
FEB 1-15	4141.38	364,740	50.50	65.00	82%	4.20
FEB 16-28	4141.95	410,340	50.00	57.70	140%	55.60
MAR 1-10	4142.50	456,140	80.90	63.45	114%	43.20
MAR 11-20	4142.80	481,440	72.30	57.23	115%	58.30
MAR 21-31	4142.73	475,440	56.40	57.23	99%	43.20
APR 1-10	4142.88	488,550	65.70	57.23	148%	28.30
APR 11-20	4142.96	494,950	50.50	44.94	88%	63.20
APR 21-30	4143.25	516,150	52.60	44.94	117%	74.60
MAY 1-10	4143.21	497,550	47.30	25.83	109%	38.00
MAY 11-20	4143.07	504,450	28.20	25.83	109%	30.60
MAY 21-31	4143.10	504,450	22.40	25.83	87%	32.60
JUN 1-10	4143.23	517,950	10.90	12.68	158%	38.10
JUN 11-20	4142.79	507,750	20.00	13.95	42%	39.40
JUN 21-30	4142.61	465,450	5.90	13.19	2%	39.50
JUL 1-10	4142.21	431,950	0.20	13.19	-5%	42.60
JUL 11-20	4141.78	392,650	9.70	20.17	47%	41.40
JUL 21-31	4140.74	316,350	15.30	20.17	76%	38.80
AUG 1-10	4140.30	284,350	26.10	40.16	65%	44.20
AUG 11-20	4139.97	280,850	27.85	42.84	80%	36.76
SEP 1-10	4139.69	241,250	43.44	54.30	80%	25.68
SEP 11-20	4139.43	223,154	43.44	54.30	80%	31.68
OCT 1-15	4139.30	232,005	52.89	66.00	80%	28.68
OCT 16-31	4139.73	243,767	58.32	70.40	80%	31.26
NOV 1-15	4140.07	267,888				
NOV 16-30	4140.85	324,208				
DEC 1-15						
DEC 16-31						
Total Est. Inflow 1995			1249.65			

Date	Flow	Days	Total In Acre-foot (1000 AF)	Notes
JAN 1-15				
JAN 16-31	1,300	15	38.68	See Actuals on page 2
FEB 1-15	1,300	15	41.26	See Actuals on page 2
FEB 16-28	1,300	15	38.68	See Actuals on page 2
MAR 1-10	1,300	15	38.68	See Actuals on page 2
MAR 11-20	1,300	15	38.68	See Actuals on page 2
MAR 21-31	1,300	16	41.26	See Actuals on page 2
APR 1-10				
APR 11-20				
APR 21-30				
MAY 1-10				
MAY 11-20				
MAY 21-31				
JUN 1-10				
JUN 11-20				
JUN 21-30				
JUL 1-10				
JUL 11-20				
JUL 21-31				
AUG 1-10				
AUG 11-20				
AUG 21-31				
SEP 1-10				
SEP 11-20				
SEP 21-30				
OCT 1-15				
OCT 16-31				
NOV 1-15				
NOV 16-30				
DEC 1-15				
DEC 16-31				

UPPER KLAMATH LAKE  
PROJECTED ELEVATIONS



Projected Inflow Operations



Month	Accretions to the Klamath			Irrigation			Iron Gate Release	Keno Release	Total Draft	Status	Comments
	Diversion Channel	Pump F-FE Balance	Klamath Balance	Diversion Channel	Adv/North Canals	A Canal					
JAN 1-15	11.13	0.56	19.10	0.00	4.81	0.00	36.48		12.10	Actual	900 cfs Min. flow below Iron Gate
JAN 16-31	8.02	3.13	19.97	0.00	9.43	0.00	33.38		7.70	Actual	900 cfs Min. flow below Iron Gate
FEB 1-15	8.29	1.57	27.31	0.00	11.49	0.00	33.38		7.70	Actual	900 cfs Min. flow below Iron Gate
FEB 16-28	2.89	5.41	13.22	0.00	6.15	0.00	23.07		4.20	Actual	900 cfs Min. flow below Iron Gate
MAR 1-10	7.27	6.05	13.37	0.00	3.75	0.00	27.14		55.60	Actual	900 cfs Min. flow below Iron Gate
MAR 11-20	19.83	8.02	29.59	0.00	2.21	0.00	110.83		78.30	Actual	FERC Flows or above for the of the year
MAR 21-31	10.72	10.61	16.64	0.00	0.99	0.00	61.14		43.20	Actual	
APR 1-10	5.21	5.85	9.88	0.00	0.48	0.00	83.84		59.30	Actual	
APR 11-20	4.54	2.77	20.79	0.00	0.00	3.56	43.35		29.30	Actual	
APR 21-30	3.22	4.18	11.07	0.00	0.25	4.17	88.49		63.20	Actual	
MAY 1-10	10.50	3.52	15.63	0.00	0.12	4.24	79.22		74.60	Actual	
MAY 11-20	3.64	4.53	3.42	0.00	0.51	8.46	27.73		38.00	Actual	
MAY 21-31	0.00	3.20	6.90	0.00	2.63	14.37	14.71		30.60	Actual	
JUN 1-10	0.00	2.53	5.84	0.00	3.96	15.08	24.91		24.90	Actual	
JUN 11-20	0.12	2.84	10.10	0.00	2.26	10.79	21.33		32.60	Actual	
JUN 21-30	0.00	2.65	6.65	0.00	3.16	12.64	14.34		38.10	Actual	
JUL 1-10	0.00	1.81	3.13	0.00	4.81	16.89	14.46		35.10	Actual	
JUL 11-20	0.00	2.02	4.91	0.00	4.85	18.79	16.24		39.40	Actual	
JUL 21-31	0.00	1.57	7.06	0.00	4.01	17.21	20.37		39.50	Actual	
AUG 1-10	0.00	1.10	5.32	0.00	4.30	17.13	22.71		42.60	Actual	
AUG 11-20	0.00	1.17	4.21	0.00	5.33	18.00	22.71		42.70	Actual	
AUG 21-31	0.00	1.37	8.43	0.00	5.05	15.17	26.80		41.40	Actual	
SEP 1-10	0.00	1.67	6.12	0.00	4.63	13.87	26.50		39.80	Actual	
SEP 11-20	0.00	0.66	4.87	0.00	4.40	11.33	26.59		34.60	Actual	
SEP 21-30	2.87	0.72	4.13	0.00	4.00	11.90	39.90		44.20	Actual	
OCT 1-15	4.60	1.00	6.00	0.00	4.00	6.00	41.26		36.76	Actual	
OCT 16-31	2.00	2.50	10.00	0.00	4.00	6.00	38.68		26.68	Actual	
NOV 1-15	1.00	4.00	12.00	0.00	10.00	0.00	31.68		28.68	Actual	
NOV 16-30	1.00	5.00	14.00	0.00	10.00	0.00	38.68		31.26	Actual	
DEC 1-15	1.00	5.00	14.00	0.00	10.00	0.00	41.26				
DEC 16-31	1.00	5.00	14.00	0.00	10.00	0.00					
TOTALS	109.52	101.01	345.66	54.16	136.22	236.77	1251.29				
			Agricultural & Refuge Totals								
						427.15					

Pacific Power Substation Precipitation since October 1, 1984				
	Actual PP&L Precip.	Summation of Precip.	Summation of Average Precip.	Percent of Average Precip.
Oct	0.16	0.16	1.06	15%
Nov	3.61	3.77	2.85	132%
Dec	0.93	4.70	4.89	96%
Jan	3.38	8.08	6.85	118%
Feb	0.31	8.39	8.27	101%
Mar	3.05	11.44	9.51	120%
Apr	2.65	14.09	10.34	136%
May	0.79	14.88	11.31	132%
Jun	1.86	16.74	12.10	138%
Jul	0.29	17.03	12.40	137%
Aug	0.00	17.03	12.79	133%
Sep	0.02	17.05	13.36	128%

NOTES:

The Natural Resources Conservation Service snowfall sites show that the Klamath Basin is at 84% of normal as of March 9. The present storm systems should increase that percentage significantly. Since March 1, the PP&L Substation has reported over 1.63" of precipitation.

Explanation of Columns:

Diversion Channel - Amount of water that is diverted from the Lost River to the Klamath River below Link River Dam and above Keno Dam.

Pump F-FF - Amount of water that is returned to the Klamath River from the Lower Klamath Lake area including the Wildlife Refuges

Klamath Balance - This amount represents accretions to the Klamath River that are not readily quantified, such as misc. tributaries above Iron Gate Dam, irrigation demand over which Reclamation has no control and springs along the river.

Diversion Channel - During the summer months it is necessary to divert water from the Klamath River system to the Lost River system for delivery to project lands. The amount represents a draft on the Klamath River.

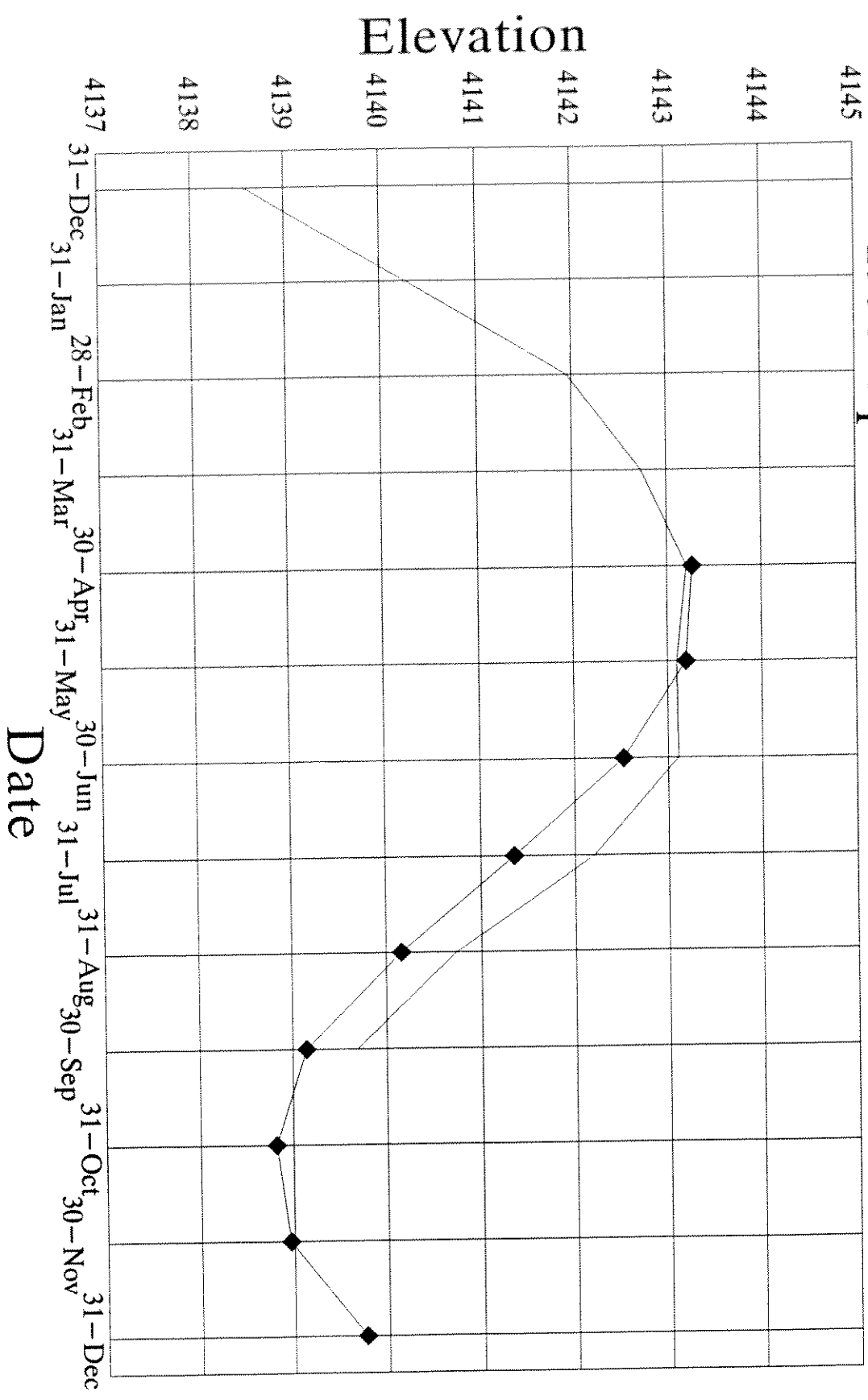
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A Canal - This canal is the main diversion from Upper Klamath Lake for the project. Water diverted through this canal is delivered directly and indirectly to all other districts within the project that rely upon upper Klamath Lake

Iron Gate Release - This represent the total flow in acre-feet below Iron Gate Dam to the Klamath River. The amount is transferred to this column from Page 1, Iron Gate Computations

# UPPER KLAMATH LAKE

## 1995 Operations – End of Month Elevations



— Actuals

◆ April 7 Plan

## DEPARTMENT OF FISH AND GAME

6 NINTH STREET  
BOX 944209  
SACRAMENTO, CA 94244-2090  
(916) 653-7667



October 25, 1995

Mr. Ross Burgess, Chairman  
Trinity County Board of Supervisors  
P. O. Drawer 1258  
Weaverville, California 96003

Dear Chairman Burgess:

The Governor has asked that I respond to your Board of Supervisors' Emergency Proclamation and Petition which requests that he issue an emergency executive order which would rescind the regulation against the taking of salmon over 22 inches on the mainstem of the Trinity River.

As I mentioned in my telephone conversation with you on October 20, our approach to this issue was from the positive side, that is we examined the various factors involved with a view to how the request might be granted rather than why it should not. Nevertheless, our final recommendation to the Fish and Game Commission which has the statutory authority for setting hunting and fishing regulations was that for it to take action to reopen the season on the upper reaches of the Trinity River would not be appropriate.

The Department is pleased with the abundance of fall-run chinook salmon this year. From trapping at Willow Creek weir, general observations and fishing reports, estimates of the run put it as substantially greater than last year, somewhere on the order of 70,000 fish. We fully expect to satisfy the egg take goal of six million eggs at the Trinity River Hatchery (the goal for spring-run chinook of four million eggs has already been satisfied). The adult fall-run chinook escapement objective of 71,000, i.e., 9,000 at Trinity River Hatchery and 62,000 in the Trinity River, has a very good chance of being met. However, please keep in mind that although there may be a surplus of hatchery fish this is not necessarily the case with natural spawners. We could safely say, based on these considerations, that there would not be damage to the resource if the season were reopened and only hatchery fish could be targeted.

Mr. Ross Burgess  
October 25, 1995  
Page Two

Governor Wilson is responsive to the needs of local government, is certainly aware of, and addressing separately, the general economic situation in Trinity County. Reopening the salmon season would generate some additional business there. From the Department's perspective, it might also generate license sales and would allow more consumptive use of a resource without undue concern over impact to it. At the same time, it is important to acknowledge the validity and value of the agreed-to, collaborative process involved in the establishment of the salmon fishing regulations for the Klamath Basin, even if earlier projections of the magnitude of this year's fall-run were inaccurate.

As you know, numerous parties representing federal and state governments, California Tribes, ocean commercial and sport fishing interests, downriver and upriver users all contribute inputs to the Pacific Fishery Management Council which develops allocation numbers that are in turn incorporated into fishing regulations set by the Fish and Game Commission through an open-hearing rulemaking process. It is even noted that the regulation this year to set a time-certain season on the Trinity River was configured and adopted by the Commission in response to requests from Trinity County (albeit, the relative success of the fall-run was not anticipated at the time). The point is that there is a multi-party allocation scheme based on trust that should be adhered to; the proposed relaxation of the 22-inch size limit in the Trinity upper reaches would cause the in-river allocation to be exceeded. Department liaison with other user groups alluded to above indicates that they would be very concerned with the imbalance and would likewise expect special consideration. To initiate something like a new allocation process to fit present circumstances, late in the season, and find agreement among all the participants is not realistic.

Further, the ability of the Fish and Game Commission to take timely unilateral action is questionable; whether or not the current situation constitutes an emergency pursuant to the pertinent section of the Fish and Game Code (Section 240) is uncertain as is its consistency with the emergency standard(s) which the Office of Administrative Law would apply. Moreover, unilateral action does not appear to be good policy when seen in the context of maintaining the integrity of the present allocation system.

Mr. Ross Burgess  
October 25, 1995  
Page Three

I think that it is worth noting that biologically speaking, the Trinity River is not "saturated" and the spawning activity which is now taking place is very beneficial. The 1995 brood year should be a great one. As for the near term, the Commission is prepared to discuss allowing an "additional season" for the Trinity, similar to that which exists below Iron Gate Hatchery on the Klamath River, wherein if the fishery exceeds expected return and hatchery production goals are satisfied the Commission would have the authority to effectively extend the salmon fishing season. The Department of Fish and Game and the Commission look forward to working closely with you, the Board, and Trinity County citizens to explore the options before we begin the process to set new Klamath-Trinity regulations next spring.

Sincerely,



C. F. Raysbrook  
Interim Director

cc: Governor's Office

Resources Agency

The Honorable Tom Woods  
Member of the Assembly

The Honorable Maurice Johannessen  
Member of the Senate

Mr. Robert Treanor, Executive Director  
California Fish and Game Commission

**Chairman**

• Paul Kirk. (707) 445-7695

**Vice Chairman**

• Bob Jones (503) 469-0831

**Oregon Representative**

• Fred Schutt. (503) 469-4431

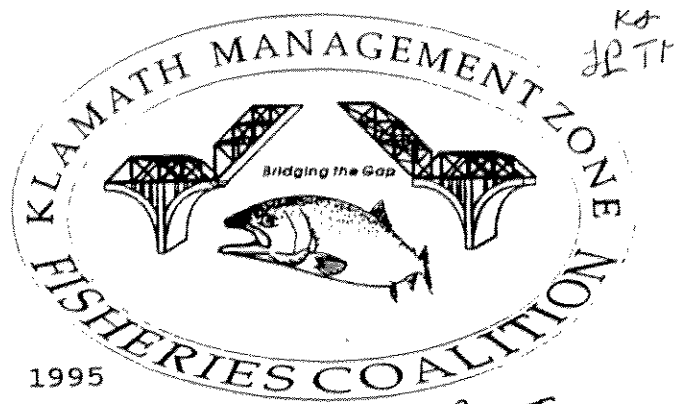
**California Representative**

• Cunningham. (707) 442 8025

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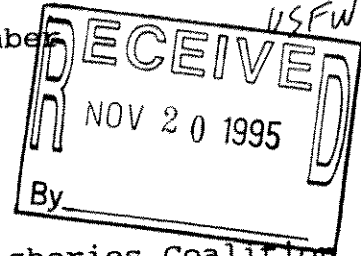
J. L. MAIL DEPT.



November 14, 1995

*Y.C: Ron Iverson  
USFWS, Yreka*

Klamath Management Council Member  
Don McIsaac, Chairman  
P. O. Box 59  
Portland, OR 97207



Dear Chairman:

The Klamath Management Zone Fisheries Coalition would like to request a review of the Klamath Ocean Harvest Model (KOHM). We feel that the KMC Technical Advisory Team needs to reevaluate sections of the model's input.

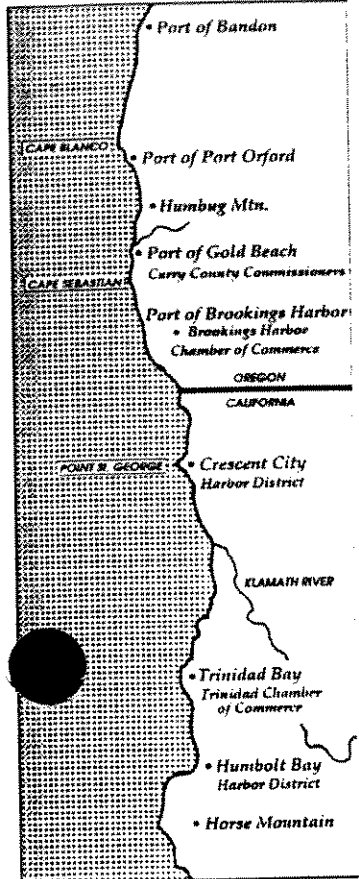
Under present harvest conditions, the KOHM does not appear to adequately reflect the chinook impacts "in or out" of the Klamath Management Zone. As you know, the KMZ fishes on a fixed quota, same as in-river sport, whereas cells to the north and south of the Zone fish on projections (season management). Given this quota management process in the KMZ, the Klamath Management Zone Fisheries Coalition would like the Technical Team to review all aspects of the model input for accuracy and improved data collection.

There is additional concern as to the KOHM being able to successfully predict small quota fisheries that take place in the KMZ. To address this concern, we are asking the Klamath Management Council to consider and investigate season management as an alternative to quota management. Recognizing the social and economic impact the fishery has on the communities in the Zone, we are requesting that the Council initiate assignments and appropriately prioritize these two requests.

Sincerely,

*Bob Jones*  
Bob Jones  
Vice-Chairman

BJ/es

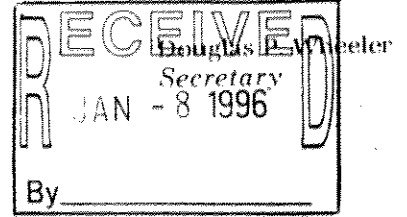


# The Resources Agency

Pete Wilson  
Governor



of California



California Conservation Corps • Department of Boating & Waterways • Department of Conservation  
Department of Fish & Game • Department of Forestry & Fire Protection • Department of Parks & Recreation • Department of Water Resources

December 19, 1995

**TO:** Interested Parties  
**FR:** John Amodio, Assistant Secretary, Resources Agency  
**RE:** Coastal Salmon Natural Community Initiative

A large, stylized handwritten signature in black ink, appearing to be "JA" or similar initials.

The purpose of this memorandum is to provide information on the Coastal Salmon Natural Community Initiative, an effort involving 22 state, federal, tribal and local government agencies as well as stakeholder interests. The goal of the Initiative is to develop an integrated program to provide long-term protection of coastal salmon natural communities, while providing certainty for landowners and local communities.

This effort came about partly due to the increasing realization that the current fragmented resources management and regulatory approach was not working. It clearly creates costly duplications of effort for both the private and public sector. Currently, there are separate regulatory efforts in regards to the Northern Spotted Owl, the Marbled Murrelet, timber harvesting on private lands, the federal Forest Plan, the Clean Water Act and others. All of these are well-intended and seek to protect important public values. However, at times, the different regulatory goals and processes seem in conflict with one another and place the landowner in a catch-22 situation.

The current regulatory approach also has failed to fully protect the health and productivity of the environment. Conservation biology is increasingly documenting the imperative to take a systems approach, with strong emphasis on sustaining functional habitat over time.

Given this new emphasis, we are committed to fully and fairly assessing how we can integrate environmental and economic values on a sustainable basis.

The Resources Building Sacramento, CA 95814 (916) 653-5656 FAX (916) 653-8102

California Coastal Commission • California Tahoe Conservancy • Colorado River Board of California  
Energy Resources, Conservation & Development Commission • San Francisco Bay Conservation & Development Commission  
State Coastal Conservancy • State Lands Commission • State Reclamation Board



The process developed as follows. In the summer of 1994, Governor Wilson was requested by four Northern California coastal counties to petition the President to declare a Natural Disaster as a result of El Nino's impact on ocean fishing. The Governor's Office of Emergency Services concluded that El Nino was a meaningful factor in the immediate reduced ocean fishery season and that California's fishery dependent, coastal communities warranted federal emergency assistance.

Simultaneously, the Resources Agency recognized that a number of other factors were contributing to a general decline in our anadromous fisheries. The Agency determined to undertake a review and assessment of California's existing policies and efforts regarding salmon protection and restoration. Due to existing commitments, particularly intense efforts focused on the Bay-Delta, the review was deferred until February 1995.

In February, leaders of the Fish, Farm and Forest Communities (Three F - an association of forestry, recreational and commercial fisheries and agricultural interests) requested the Resources Agency to participate in their continuing cooperative efforts to devise ways to better protect Coho salmon. The Three F describes itself as:

"...working to develop environmentally sound and economically feasible solutions to issues facing resource based economics...The first task of the FFF will be to address issues surrounding the possible listing of the Coho salmon as a threatened species under the federal Endangered Species Act."

After meetings in February and March, the Three F Chairman, Gil Murray, requested the Resources Agency to coordinate an expanded effort of the relevant government entities, as well as the environmental and economic stakeholders. He also noted that a number of the key stakeholders would be unwilling to engage in any process unless and until the many State and federal entities, particularly those with regulatory responsibilities, would commit to working cooperatively towards common goals

The Agency initiated a series of consultations. Through this, we learned that other environmental problems besides the Coho were also rapidly coming to a head. Specifically, a similar decline in coastal Steelhead Trout would likely lead to their proposed listing under the federal ESA. Additionally, the federal EPA was under two Notices of Intent to be sued by environmental interests over the alleged failure to enforce provisions of the Clean Water Act. Specifically, the environmental plaintiffs were seeking establishment of additional restrictions on seventeen Coho bearing streams that EPA previously listed as "impaired."

These additional challenges bolstered the need for a broader and more comprehensive approach to securing the environmental and economic values dependent on these coastal salmon watersheds. As a result of these

consultations, the Agency determined that an effective effort would require bringing together both a bottom-up and a top-down approach. The bottom-up element refers to the need for the major stakeholders and local government to play a central role in such a collaborative effort. The top-down element refers to the necessity for State and federal policy leaders to commit to engage in a cohesive and constructive manner in support of such an effort. The Framework Agreement embodies this approach.

We recognize that there are many players already doing important and significant work toward addressing these problems. The intent of this effort is not to displace them or "throw the baby out with the bath water". Rather, it is to understand and work with these existing efforts in order to better support them and supplement them as needed to achieve broader protection for our public resources while providing increased certainty for landowners and local communities. We believe that achieving a balanced environmental and economic outcome can best, and probably only, be accomplished through a combination of:

1) greater cooperation and coordination among existing players and efforts in order to allow their "sum to be greater than the parts;"

2) modifying or augmenting existing efforts to achieve a broader set of goals than most were originally designed to accomplish.

The signing process for the Framework Agreement has been completed for the state and federal signatories. Several local governments (Mendocino, Santa Cruz, and San Mateo) have become signatories, and other counties (Del Norte, Humboldt, and Sonoma) have designated liaisons to the effort.

The Framework Agreement directs the conduct of a feasibility assessment. Attached is a question and answer document which provides more detail. A workplan for the feasibility assessment is currently under preparation and will be available for review in late January.

We look forward to your participation in the feasibility assessment. Please forward any corrections or changes to your mailing address to the Resources Agency as soon and possible. If you have questions or comments, please contact Rebecca Fawver at (916) 653-5656, Resources Agency, 1416 Ninth Street, Suite 1311, Sacramento, CA 95814.

# COASTAL SALMON NATURAL COMMUNITY INITIATIVE

November 3, 1995

## Conduct of a Feasibility Assessment

The first specific effort under the Framework Agreement is to conduct an assessment as to how a cooperative ecosystem-oriented program can be effectively tailored to the unique set of variables and challenges in the coastal salmon region. While there is general agreement that this type of approach conceptually makes sense, different parties have different ideas, concerns and needs in relationship to such an effort.

Prior to formally launching an actual program with the significant resources required of such an effort, we have determined to carefully examine the biological, economic and political basis for such an approach. A number of parties have raised questions regarding the conduct of the feasibility assessment. We hope this additional information can answer those questions.

First, an acknowledgment is important. We recognize there are many players already doing important and significant work towards addressing these problems. The intent of this effort is not to displace them or seek to start from square-one on a completely new approach. Rather, it is to understand and work with these existing efforts. We believe that achieving a balanced environmental and economic outcome can best, and probably only, be accomplished through a combination of:

- 1) greater cooperation and coordination among existing players and efforts in order to allow their "sum to be greater than the parts;"
- 2) modifying or augmenting existing efforts to achieve a broader set of goals than most were originally designed to accomplish.

### **1. What is the goal of this feasibility assessment?**

The goal is to determine the feasibility of a process through which landowners and communities can achieve protection and restoration of coastal salmon natural communities as well as provide certainty for the landowner's economic use of their land. It is important that landowners will be able to meet or exceed the existing requirements of law in a more effective and efficient manner.

### **2. Why try to improve upon the existing regulatory process?**

The current fragmented regulatory approach clearly creates costly duplications of effort for both the landowner and government sector. At times, the different

regulatory goals seem in conflict with one another and place the landowner in a catch-22 situation.

The current regulatory approach also has significant defects in achieving its purpose of protecting the health and productivity of the environment. Conservation biology is increasingly documenting the imperative to take a systems approach, with strong emphasis on sustaining functional habitat over time.

Given this combination of flaws in our existing approach, we are committed to fully and fairly assessing how we can better facilitate restoring, and sustaining environmental and economic values.

Different means will be evaluated during the feasibility assessment. One approach certainly to be scrutinized is development of integrated resource management plans. Such Plans have been utilized, or are in process of being developed, in other resource areas with encouraging progress. These plans are being developed under the leadership of community based groups, particularly Resources Conservation Districts, as well as individual landownerships.

### **3. How does this program contemplate dealing with existing regulatory processes or planning efforts?**

This program will seek to consolidate existing efforts whenever feasible. A review of existing efforts will occur early in the feasibility assessment to determine their value and compatibility as elements of an integrated program. The desire is to develop a process which integrates appropriate existing efforts and builds upon or augments them as needed. By way of example, forest landowners of greater than 2,500 acres now have the option of developing sustained Yield Plans (SYPs). It is conceivable that an SYP could be the basis for meeting the diverse requirements of State and federal law. Coordinated Resource Management Plans also are a proven process that might be broadened in purpose to serve as vehicles for meeting the diverse requirements of law, as well as blue-print for enhancing the productivity of a natural community.

### **4. What has been done to date to pursue this approach?**

In February 1995, the Resources Agency determined that a review and assessment of California's existing policies and efforts regarding salmon protection and restoration was timely. This reflected concern that the state's salmon populations were generally, and for some runs significantly, in decline. The Central Valley winter-run had already been listed under the federal ESA, and the coastal Coho salmon was under consideration for listing. If Coho was listed, a traditional single species approach could have far-reaching adverse impacts on California's Northcoast.

Also in February, leaders of the Fish, Farm and Forest Communities (Three F) (an association of forestry, recreational and commercial fisheries and agriculture interests) requested the Resources Agency to discuss expansion of their on-going cooperative efforts to devise ways to better protect Coho salmon through inclusion of government officials and representatives of other stakeholder interests. The Three F describes itself as:

"...working to develop environmentally sound and economically feasible solutions to issues facing resource based economies...The first task of the FFF will be to address issues surrounding the possible listing of the Coho salmon as a threatened species under the federal Endangered Species Act."

After meetings in February and March, the Three F Chairman Gil Murray requested the Resources Agency to coordinate an expanded effort of the relevant government entities.

The Agency determined that an effective effort would require bringing together both a bottom-up and a top-down approach. The bottom-up element refers to the need for the major stakeholders and local government to play a central role in such a collaborative effort. The top down element refers to the necessity for State and federal policy leaders to commit to engage in a cohesive and constructive manner in support of such an effort. The Framework Agreement and the feasibility assessment embody this approach.

#### **5. Who will perform the assessment; who will pay for it?**

The feasibility assessment will be conducted by the California Resources Agency with the participation of the signatories to the Framework Agreement and other interested parties. There is not a specific budget for the conduct of the assessment. The principal expense will be staff time, which will be provided by the participating government entities from existing budgets.

#### **6. How will the assessment effort be structured?**

A Policy Group of government and non-government leaders will be established by the Resources Agency to help guide and oversee the assessment effort. This Policy Group will make the key decisions regarding workplan scope and determination of the recommended program approaches. A core staff from State and federal agencies will gather needed information, perform necessary analysis and prepare draft work products. In addition, an Applied Science Panel will be created to provide science-based recommendations.

**7. What will be the geographic scope of this program?**

A goal of the feasibility assessment is to determine whether a program could be developed which can then be implemented in all or part of the coho's geographic range in California. According to DFG (1994), populations of coho in California occur from California's most northern coastal river, the Smith, south to the San Lorenzo River in Santa Cruz County.

**8. How will the public and interested parties participate in the assessment?**

In order for any program to be successful, it will require broad-based public involvement. Consequently, we will pursue every feasible effort to provide information and forums for discussion and dialogue. This will include public meetings early in the assessment effort in several locations within the Coastal Salmon region. These meetings will be designed to both inform the public about the assessment and to benefit from their perspective on the key issues to be assessed. Another round of public meetings will be held to present the draft findings and recommendations of the Policy Committee, and to receive comments or suggestions regarding them.

In addition to public meetings, we will utilize mailings. We are further exploring the use of the Resources Agency's CERES program on the Internet to facilitate timely distribution of information and as another forum for dialogue.

Additionally, the Policy Group and Core Staff will structure involvement of the major economic and environmental stakeholder groups in their assessment efforts and development of draft findings.

**9. What will be the role of local government?**

Local governments possess tremendous knowledge, experience and authority regarding the spectrum of land uses and the special variables of their area. Their participation in shaping and guiding the assessment, and making final decisions, is particularly valuable. Their possible roles in the implementation of a feasible program will be explored and considered through the feasibility assessment. Ultimately, the role they serve in both the feasibility assessment and program implementation will be determined by them. It is recognized that their ability to participate is severely constrained by lack of resources. Any potential role for them in program implementation will need to address the means to finance such a role.

**10. What is the role of science in this process?**

A primary goal of the feasibility assessment is to structure the program based on the best scientific information. An Applied Science Panel will be created for making specific science-based recommendations, such as protocols for watershed assessment. The Panel would solicit the ideas and critique of the broader scientific community. Early in the feasibility assessment existing scientific information will be surveyed and analyzed for its adequacy to support the program goals.

**11. Would integrated resources management plans be required and who is the appropriate local entity to devise a plan?**

Development of such a plan would be voluntary. The decision of whether to develop such a plan will be a landowner or landowners decision. Some landowners may be able to develop such a plan for their own property; others may desire to work with other landowners through such cooperative mechanisms as Resource Conservation Districts or Watershed Associations. In some areas, local government might be a convening or lead entity. Therefore, the appropriate local entity to develop a plan would be whatever entity a landowner or landowners view is most appropriate for their situation.

**12. Who will pay for the development of integrated resource management plans?**

Possible funding sources will be thoroughly explored during the feasibility assessment. The cost for development of a plan may be covered by individual landowners or cooperative partnerships with the public and private sectors. Additionally, resources in terms of staff and other assistance would be invested by the signatories to the Framework Agreement.

**13. Who will review and approve the plans?**

Review and approval of the plans will be conducted by the government entities with legal responsibilities for the laws with which the plan seeks to comply. Thus, the number of agencies involved will depend upon the range of laws that the plan is intended to cover.

**14. Will all ownership sizes and land uses have the same requirements under this approach?**

While all landowners have the same broad obligation to meet the requirements of law, we are seeking to move away from the one-size fits all regulatory approach to solutions tailored to the greatly varying realities of different landscapes and land-uses. The means towards that common end may vary in order

to reflect the special needs and opportunities associated with different ownership sizes and uses.

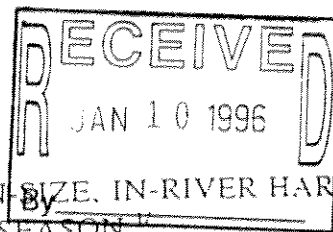
**15. What is meant by "...integrating private, public and tribal land management within a watershed"?**

It is recognized that private, public and tribal lands have different legal standings and requirements. The goal is not to blur these long-recognized distinctions, but to foster effective cooperation and coordination to optimize the overall public benefits of the different ownership goals and management.

**16. How much would a full-blown program of this nature cost, and who would pay for it?**

The determination of the cost of such a program will be a key focus of the feasibility assessment. Part of the feasibility assessment will be to research all possible funding options. Perhaps the most meaningful measure of the value of any proposed program will be whether the private and public sector are willing to finance its implementation.





KLAMATH RIVER BASIN FALL CHINOOK SALMON RUN-SIZE, IN-RIVER HARVEST  
AND SPAWNER ESCAPEMENT -- 1995 SEASON

The 1995 adult fall chinook salmon run size into the Klamath River system was the second highest on record and considerable higher than the pre-season projection. The grilse run was the sixth highest on record and the highest since 1986.

Fisheries scientists projected that 75,000 adult fall chinook would return to the Klamath River this fall. Using this figure, they project an in-river harvest of 18,400 fish (including 1,300 unlanded mortalities), leaving 56,600 adults to spawn naturally or in the hatcheries. The following table presents, in abbreviated form, 1995 pre-season adult harvest and spawner escapement projections<sup>2/</sup> along with corresponding post-season estimates.

	Preseason projection	Postseason estimate	Percent of projected
<i>Harvest</i>			
Indian net	15,300	15,557	101.7%
Angler	1,800	4,558	253.2%
Net & angler mortalities (unlanded)	1,300	1,336	102.8%
Subtotals	18,400	21,451	116.6%
<i>Spawner Escapement</i>			
Natural	35,000	150,641	430.4%
Hatchery	21,600	28,625	132.5%
Subtotals	56,600	179,266	316.7%
Totals	75,000	200,717	267.6%

Complete run-size, harvest and spawner-escapement estimates for both adults and grilse for years, 1978-1995, are presented in the accompanying table.

<sup>1/</sup> Prepared December 18, 1995 by the California Department of Fish and Game, Klamath-Trinity Program.

<sup>2/</sup> From "Preseason Report III, Analysis of Council-Adopted Management Measures for 1995 Ocean Salmon Fisheries". Prepared by the Salmon Technical Team and Staff Economist - Pacific Fisheries Management Council. April 1995

Klamath River Basin Fall Chinook Salmon Spawner Escapement, In-river Harvest and Run-size Estimates, 1978-1995 a

SPAWNER ESCAPEMENT

	1978			1979			1980		
	Grilse	Adults	Totals	Grilse	Adults	Totals	Grilse	Adults	Totals
<b>Hatchery Spawners</b>									
Iron Gate Hatchery (IGH)	915	6,925	7,840	257	2,301	2,558	451	2,412	2,863
Trinity River Hatchery (TRH)	1,325	6,034	7,359	964	1,335	2,299	2,256	4,099	6,355
Subtotals	2,240	12,959	15,199	1,221	3,636	4,857	2,707	6,511	9,218
<b>Natural Spawners</b>									
Trinity River basin	4,712	31,052	35,764	3,936	8,028	11,964	16,837	7,700	24,537
(above Willow Creek, excluding TRH)	1,400	2,600	4,000	150	1,000	1,150	200	800	1,000
Salmon River basin	1,909	3,423	5,332	428	3,396	3,824	2,245	2,032	4,277
Scott River basin	6,707	12,024	18,731	1,040	7,111	8,151	4,334	3,762	8,096
Shasta River basin	651	4,928	5,579	494	5,444	5,938	1,749	3,321	5,070
Bogus Creek basin	300	1,700	2,000	466	4,190	4,656	867	2,468	3,335
(excluding IGH)									
Misc. Klamath tributaries	735	2,765	3,500	147	1,068	1,215	500	1,000	1,500
(above Hoopa and Yurok Reservations)	--	--	--	100 <sup>c</sup>	400 <sup>c</sup>	500 <sup>c</sup>	250 <sup>c</sup>	400 <sup>c</sup>	650 <sup>c</sup>
Hoopa and Yurok Reservation tribs.									
Subtotals	16,414	58,492	74,906	6,761	30,637	37,398	26,982	21,483	48,465
<b>Total Spawner Escapement</b>	<b>18,654</b>	<b>71,451</b>	<b>90,105</b>	<b>7,982</b>	<b>34,273</b>	<b>42,255</b>	<b>29,689</b>	<b>27,994</b>	<b>57,683</b>

IN-RIVER HARVEST

	1978			1979			1980		
	Grilse	Adults	Totals	Grilse	Adults	Totals	Grilse	Adults	Totals
<b>Angler Harvest</b>									
Klamath River (below Hwy 101 bridge)	122	854	976	216	484	700	835	727	1,562
Trinity River basin (above Willow Creek)	--	--	--	765	1,157	1,922	2,456	998	3,454
Balance of Klamath system	1,960	840	2,800	1,200	500	1,700	2,600	2,771	5,371
Subtotals	2,082	1,694	3,776	2,181	2,141	4,322	5,891	4,496	10,387
<b>Indian Net Harvest<sup>e</sup></b>									
Klamath River (below Hwy 101 bridge)	--	--	--	--	--	--	495	9,605	10,100
Klamath River (Hwy 101 to Trinity mouth)	--	--	--	--	--	--	272	1,528	1,800
Trinity River (Hoopa Reservation)	--	--	--	--	--	--	220	880	1,100
Subtotals	1,800	18,200	20,000	1,350	13,650	15,000	987	12,013	13,000
<b>Total In-river Harvest</b>	<b>3,882</b>	<b>19,894</b>	<b>23,776</b>	<b>3,531</b>	<b>15,791</b>	<b>19,322</b>	<b>6,878</b>	<b>16,509</b>	<b>23,387</b>

IN-RIVER RUN

	1978			1979			1980		
	Grilse	Adults	Totals	Grilse	Adults	Totals	Grilse	Adults	Totals
<b>Totals</b>									
In-river Harvest and Escapement	22,536	91,345	113,881	11,513	50,064	61,577	36,567	44,503	81,070
Angling Mortality (2% of harvest) <sup>f</sup>	42	34	76	44	43	87	118	90	208
Net Mortality (8% of harvest) <sup>f</sup>	144	1,456	1,600	108	1,092	1,200	79	961	1,040
<b>Total In-river Run</b>	<b>22,722</b>	<b>92,835</b>	<b>115,557</b>	<b>11,665</b>	<b>51,199</b>	<b>62,864</b>	<b>36,764</b>	<b>45,554</b>	<b>82,318</b>

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Klamath River Basin Fall Chinook Salmon Spawner Escapement, In-river Harvest and Run-size Estimates, 1978-1995 a

SPAWNER ESCAPEMENT

	1981			1982			1983		
	Grilse	Adults	Totals	Grilse	Adults	Totals	Grilse	Adults	Totals
<b>Hatchery Spawners</b>									
Iron Gate Hatchery (IGH)	540	2,055	2,595	1,833	8,353	10,186	514	8,371	8,885
Trinity River Hatchery (TRH)	1,004	2,370	3,374	4,235	2,058	6,293	271	5,494	5,765
Subtotals	1,544	4,425	5,969	6,068	10,411	16,479	785	13,865	14,650
<b>Natural Spawners</b>									
Trinity River basin (above Willow Creek, excluding TRH)	5,906	15,340	21,246	8,149	9,274	17,423	853	17,284	18,137
Salmon River basin	450	750	1,200	300	1,000	1,300	75	1,200	1,275
Scott River basin	3,409	3,147	6,556	4,350	5,826	10,176	170	3,398	3,568
Shasta River basin	4,330	7,890	12,220	1,922	6,533	8,455	753	3,119	3,872
Bogus Creek basin	912	2,730	3,642	2,325	4,818	7,143	335	2,713	3,048
Main Stem Klamath River (excluding IGH)	1,000	3,000	4,000	1,000	3,000	4,000	200	1,800	2,000
Misc. Klamath tributaries (above Hoopa and Yurok Reservations)	500	1,000	1,500	600	1,500	2,100	140	1,270	1,410
Hoopa and Yurok Reservation tribs.	- <sup>b</sup>	- <sup>b</sup>	- <sup>b</sup>	- <sup>b</sup>	- <sup>b</sup>	- <sup>b</sup>	- <sup>b</sup>	- <sup>b</sup>	- <sup>b</sup>
Subtotals	16,507	33,857	50,364	18,646	31,951	50,597	2,526	30,784	33,310
<b>Total Spawner Escapement</b>	<b>18,051</b>	<b>38,282</b>	<b>56,333</b>	<b>24,714</b>	<b>42,352</b>	<b>67,076</b>	<b>3,311</b>	<b>44,649</b>	<b>47,960</b>

IN-RIVER HARVEST

	1981			1982			1983		
	Grilse	Adults	Totals	Grilse	Adults	Totals	Grilse	Adults	Totals
<b>Angler Harvest</b>									
Klamath River (below Hwy 101 bridge)	536	1,714	2,250	1,252	3,539	4,791	60	750	810
Trinity River basin (above Willow Creek)	1,456	3,174	4,630	2,554	2,321	4,875	116	2,360	2,476
Balance of Klamath system	5,260	1,095	6,355	8,678	2,479	11,157	175	1,125	1,300
Subtotals	7,252	5,983	13,235	12,484	8,339	20,823	351	4,235	4,586
<b>Indian Net Harvest</b>									
Klamath River (below Hwy 101 bridge)	912	23,097	24,009	290	4,547	4,837	12	800	812
Klamath River (Hwy 101 to Trinity mouth)	1,104	8,405	9,509	1,195	8,424	9,619	121	5,700	5,821
Trinity River (Hoopa Reservation)	449	1,531	1,980	314	1,511	1,825	30	1,390	1,420
Subtotals	2,465	33,033	35,498	1,799	14,482	16,281	163	7,890	8,053
<b>Total In-river Harvest</b>	<b>9,717</b>	<b>39,016</b>	<b>48,733</b>	<b>14,283</b>	<b>22,821</b>	<b>37,104</b>	<b>514</b>	<b>12,125</b>	<b>12,639</b>

IN-RIVER RUN

	1981			1982			1983		
	Grilse	Adults	Totals	Grilse	Adults	Totals	Grilse	Adults	Totals
<b>Totals</b>									
In-river Harvest and Escapement	27,768	77,298	105,066	38,997	65,183	104,180	3,825	56,774	60,599
Angling Mortality (2% of harvest) f	145	120	265	250	167	417	7	85	92
Net Mortality (8% of harvest) f	197	2,643	2,840	144	1,159	1,303	13	631	644
<b>Total In-river Run</b>	<b>28,110</b>	<b>80,061</b>	<b>108,171</b>	<b>39,391</b>	<b>66,509</b>	<b>105,900</b>	<b>3,845</b>	<b>57,490</b>	<b>61,335</b>

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Klamath River Basin Fall Chinook Salmon Spawner Escapement, In-river Harvest and Run-size Estimates,  
1978-1995 a

SPAWNER ESCAPEMENT

	1984			1985			1986		
	Grilse	Adults	Totals	Grilse	Adults	Totals	Grilse	Adults	Totals
<b>Hatchery Spawners</b>									
Iron Gate Hatchery (IGH)	764	5,330	6,094	2,159	19,951	22,110	1,461	17,096	18,557
Trinity River Hatchery (TRH)	766	2,166	2,932	18,166	2,583	20,749	3,609	15,795	19,404
Subtotals	1,530	7,496	9,026	20,325	22,534	42,859	5,070	32,891	37,961
<b>Natural Spawners</b>									
Trinity River basin (above Willow Creek, excluding TRH)	3,416	5,654	9,070	29,454	9,217	38,671	20,459	92,548	113,007
Salmon River basin	216 <sup>g</sup>	1,226 <sup>g</sup>	1,442 <sup>g</sup>	905	2,259	3,164	949	2,716	3,665
Scott River basin	358	1,443	1,801	1,357	3,051	4,408	4,865	3,176	8,041
Shasta River basin	480	2,362	2,842	2,227	2,897	5,124	683	3,274	3,957
Bogus Creek basin	465	3,039	3,504	1,156	3,491	4,647	1,184	6,124	7,308
Main Stem Klamath River (excluding IGH)	200	1,350	1,550	156	468	624	196	603	799
Misc. Klamath tributaries (above Hoopa and Yurok Reservations)	150	990	1,140	646	4,214	4,860	606	4,919	5,525
Hoopa and Yurok Reservation tribs.	-- <sup>b</sup>	-- <sup>b</sup>	-- <sup>b</sup>	50 <sup>h</sup>	80 <sup>h</sup>	130 <sup>h</sup>	-- <sup>b</sup>	-- <sup>b</sup>	-- <sup>b</sup>
Subtotals	5,285	16,064	21,349	35,951	25,677	61,628	28,942	113,360	142,302
<b>Total Spawner Escapement</b>	<b>6,815</b>	<b>23,560</b>	<b>30,375</b>	<b>56,276</b>	<b>48,211</b>	<b>104,487</b>	<b>34,012</b>	<b>146,251</b>	<b>180,263</b>

IN-RIVER HARVEST

	1984			1985			1986		
	Grilse	Adults	Totals	Grilse	Adults	Totals	Grilse	Adults	Totals
<b>Angler Harvest</b>									
Klamath River (below Hwy 101 bridge)	175	548	723	1,479	2,427 <sup>i</sup>	3,906	704	2,456	3,160
Trinity River basin (above Willow Creek)	393	736	1,129	5,442	154 <sup>i</sup>	5,596	3,438	12,039	15,477
Balance of Klamath system	384	2,056	2,440	4,274	1,001 <sup>i</sup>	5,275	5,266	6,532	11,798
Subtotals	952	3,340	4,292	11,195	3,582 <sup>i</sup>	14,777	9,408	21,027	30,435
<b>Indian Net Harvest</b>									
Klamath River (below Hwy 101 bridge)	132	11,878	12,010	132	5,700	5,832	191	15,286	15,477
Klamath River (Hwy 101 to Trinity mouth)	183	5,622	5,805	476	3,925	4,401	377	5,033	5,410
Trinity River (Hoopa Reservation)	140	1,170	1,310	947 <sup>j</sup>	1,941 <sup>j</sup>	2,888 <sup>j</sup>	286	4,808	5,094
Subtotals	455	18,670	19,125	1,555	11,566	13,121	854	25,127	25,981
<b>Total In-river Harvest</b>	<b>1,407</b>	<b>22,010</b>	<b>23,417</b>	<b>12,750</b>	<b>15,148</b>	<b>27,898</b>	<b>10,262</b>	<b>46,154</b>	<b>56,416</b>

IN-RIVER RUN

	1984			1985			1986		
	Grilse	Adults	Totals	Grilse	Adults	Totals	Grilse	Adults	Totals
<b>Totals</b>									
In-river Harvest and Escapement	8,222	45,570	53,792	69,026	63,359	132,385	44,274	192,405	236,679
Angling Mortality (2% of harvest) f	19	67	86	224	72	296	188	421	609
Net Mortality (8% of harvest) f	36	1,494	1,530	124	925	1,049	68	2,010	2,078
<b>Total In-river Run</b>	<b>8,277</b>	<b>47,131</b>	<b>55,408</b>	<b>69,374</b>	<b>64,356</b>	<b>133,730</b>	<b>44,530</b>	<b>194,836</b>	<b>239,366</b>

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Klamath River Basin Fall Chinook Salmon Spawner Escapement, In-river Harvest and Run-size Estimates,  
1978-1995 a

SPAWNER ESCAPEMENT

	1987			1988			1989		
	Grilse	Adults	Totals	Grilse	Adults	Totals	Grilse	Adults	Totals
<b>Hatchery Spawners</b>									
Iron Gate Hatchery (IGH)	1,825	15,189	17,014	609	16,106	16,715	831	10,859	11,690
Trinity River Hatchery (TRH)	2,453	13,934	16,387	4,752	17,352	22,104	239	11,132	11,371
Subtotals	4,278	29,123	33,401	5,361	33,458	38,819	1,070	21,991	23,061
<b>Natural Spawners</b>									
Trinity River basin (above Willow Creek, excluding TRH)	5,949	71,920	77,869	10,626	44,616	55,242	2,543	29,445	31,988
Salmon River basin	118	3,832	3,950	327	3,273	3,600	695	2,915	3,610
Scott River basin	797	7,769	8,566	473	4,727	5,200	1,188	3,000	4,188
Shasta River basin	398	4,299	4,697	256	2,586	2,842	137	1,440	1,577
Bogus Creek basin	1,208	9,748	10,956	225	16,215	16,440	444	2,218	2,662
Main Stem Klamath River (excluding IGH)	65	863	928	164	2,982	3,146	214	1,011	1,225
Misc. Klamath tributaries (above Hoopa and Yurok Reservations)	237	3,286	3,523	418	4,167	4,585	248	3,239	3,487
Hoopa and Yurok Reservation tribs.	- <sup>b</sup>	- <sup>b</sup>	- <sup>b</sup>	55 <sup>k</sup>	820 <sup>k</sup>	875 <sup>k</sup>	40 <sup>k</sup>	600 <sup>k</sup>	640 <sup>k</sup>
Subtotals	8,772	101,717	110,489	12,544	79,386	91,930	5,509	43,868	49,377
<b>Total Spawner Escapement</b>	<b>13,050</b>	<b>130,840</b>	<b>143,890</b>	<b>17,905</b>	<b>112,844</b>	<b>130,749</b>	<b>6,579</b>	<b>65,859</b>	<b>72,438</b>

IN-RIVER HARVEST

	1987			1988			1989		
	Grilse	Adults	Totals	Grilse	Adults	Totals	Grilse	Adults	Totals
<b>Angler Harvest</b>									
Klamath River (below Hwy 101 bridge)	146	2,455	2,601	124	3,367	3,491	137	1,328	1,465
Trinity River basin (above Willow Creek)	923	9,433	10,356	2,735	9,341	12,076	209	3,054	3,263
Balance of Klamath system	4,367	8,281	12,648	2,552	9,495	12,047	1,921	4,393	6,314
Subtotals	5,436	20,169	25,605	5,411	22,203	27,614	2,267	8,775	11,042
<b>Indian Net Harvest</b>									
Klamath River (below Hwy 101 bridge)	36	39,978	40,014	138	36,914	37,052	0	37,130	37,130
Klamath River (Hwy 101 to Trinity mouth)	117	8,136	8,253	173	9,667	9,840	120	4,961	5,081
Trinity River (Hoopa Reservation)	262	4,982	5,244	267	5,070	5,337	71	3,474	3,545
Subtotals	415	53,096	53,511	578	51,651	52,229	191	45,565	45,756
<b>Total In-river Harvest</b>	<b>5,851</b>	<b>73,265</b>	<b>79,116</b>	<b>5,989</b>	<b>73,854</b>	<b>79,843</b>	<b>2,458</b>	<b>54,340</b>	<b>56,798</b>

IN-RIVER RUN

	1987			1988			1989		
	Grilse	Adults	Totals	Grilse	Adults	Totals	Grilse	Adults	Totals
<b>Totals</b>									
In-river Harvest and Escapement	18,901	204,105	223,006	23,894	186,698	210,592	9,037	120,199	129,236
Angling Mortality (2% of harvest) f	109	403	512	108	444	552	45	176	221
Net Mortality (8% of harvest) f	33	4,248	4,281	46	4,132	4,178	15	3,645	3,660
<b>Total In-river Run</b>	<b>19,043</b>	<b>208,756</b>	<b>227,799</b>	<b>24,048</b>	<b>191,274</b>	<b>215,322</b>	<b>9,097</b>	<b>124,020</b>	<b>133,117</b>

(continued next page)

**Klamath River Basin Fall Chinook Salmon Spawner Escapement, In-river Harvest and Run-size Estimates,  
1978-1995 a**

**SPAWNER ESCAPEMENT**

	1990			1991			1992		
	Grilse	Adults	Totals	Grilse	Adults	Totals	Grilse	Adults	Totals
<b>Hatchery Spawners</b>									
Iron Gate Hatchery (IGH)	321	6,704	7,025	65	4,002	4,067	3,737	3,581	7,318
Trinity River Hatchery (TRH)	371	1,348	1,719	205	2,482	2,687	211	3,779	3,990
Subtotals	692	8,052	8,744	270	6,484	6,754	3,948	7,360	11,308
<b>Natural Spawners</b>									
Trinity River basin									
(above Willow Creek, excluding TRH)	241	7,682	7,923	382	4,867	5,249	2,563	7,139	9,702
Salmon River basin	596	4,071	4,667	143	1,337	1,480	547	778	1,325
Scott River basin	236	1,379	1,615	146	2,019	2,165	965	1,873	2,838
Shasta River basin	118	415	533	10	716	726	66	520	586
Bogus Creek basin	53	732	785	20	1,261	1,281	556	598	1,154
Main Stem Klamath River									
(excluding IGH)	59	505	564	8	572	580	234	366	600
Misc. Klamath tributaries									
(above Hoopa and Yurok Reservations)	30	694	724	9	495	504	153	280	433
Hoopa and Yurok Reservation tribs.	17 k	118 k	135 k	0 k	382 k	382 k	59 k	474 k	533 k
Subtotals	1,350	15,596	16,946	718	11,649	12,367	5,143	12,028	17,171
<b>Total Spawner Escapement</b>	<b>2,042</b>	<b>23,648</b>	<b>25,690</b>	<b>988</b>	<b>18,133</b>	<b>19,121</b>	<b>9,091</b>	<b>19,388</b>	<b>28,479</b>

**IN-RIVER HARVEST**

	1990			1991			1992		
	Grilse	Adults	Totals	Grilse	Adults	Totals	Grilse	Adults	Totals
<b>Angler Harvest</b>									
Klamath River (below Hwy 101 bridge)	58	291	349	19	314	333	13	20	33
Trinity River basin (above Willow Creek)	22	328	350	94	1,177	1,271	158	314	472
Balance of Klamath system	2,020	2,934	4,954	573	1,892	2,465	3,949	668	4,617
Subtotals	2,100	3,553	5,653	686	3,383	4,069	4,120	1,002	5,122
<b>Indian Net Harvest</b>									
Klamath River (below Hwy 101 bridge)	13	3,648	3,661	7	3,902	3,909	124	1,152	1,276
Klamath River (Hwy 101 to Trinity mouth)	141	3,447	3,588	25	5,016	5,041	200	3,687	3,887
Trinity River (Hoopa Reservation)	36	811	847	30	1,280	1,310	42	946	988
Subtotals	190	7,906	8,096	62	10,198	10,260	366	5,785	6,151
<b>Total In-river Harvest</b>	<b>2,290</b>	<b>11,459</b>	<b>13,749</b>	<b>748</b>	<b>13,581</b>	<b>14,329</b>	<b>4,486</b>	<b>6,787</b>	<b>11,273</b>

**IN-RIVER RUN**

	1990			1991			1992		
	Grilse	Adults	Totals	Grilse	Adults	Totals	Grilse	Adults	Totals
<b>Totals</b>									
In-river Harvest and Escapement	4,332	35,107	39,439	1,736	31,714	33,450	13,577	26,175	39,752
Angling Mortality (2% of harvest) f	42	71	113	14	68	82	82	20	102
Net Mortality (8% of harvest) f	15	632	647	5	816	821	29	463	492
<b>Total In-river Run</b>	<b>4,389</b>	<b>35,810</b>	<b>40,199</b>	<b>1,755</b>	<b>32,598</b>	<b>34,353</b>	<b>13,688</b>	<b>26,658</b>	<b>40,345</b>

Klamath River Basin Fall Chinook Salmon Spawner Escapement, In-river Harvest and Run-size Estimates, 1978-1995 a

SPAWNER ESCAPEMENT

	1993			1994			1995		
	Grilse	Adults	Totals	Grilse	Adults	Totals	Grilse	Adults	Totals
<b>Hatchery Spawners</b>									
Iron Gate Hatchery (IGH)	883	20,828	21,711	758	11,475 <sup>m</sup>	12,233	259	13,749 <sup>m</sup>	14,008
Trinity River Hatchery (TRH)	736	815	1,551	4,442	3,264	7,706	109	14,876	14,985
Subtotals	1,619	21,643	23,262	5,200	14,739	19,939	368	28,625	28,993
<b>Natural Spawners</b>									
Trinity River basin	2,465	5,905	8,370	2,505	10,906	13,411	13,019	82,694	95,713
(above Willow Creek, excluding TRH)	456	3,077	3,533	277	3,216	3,493	1,650	3,980	5,630
Salmon River basin	265	5,035	5,300	505	2,358	2,863	3,200	9,457	12,657
Scott River basin	85	1,341	1,426	1,840	3,363	5,203	490	12,740	13,230
Shasta River basin	431	3,285	3,716	443	7,817	8,260	1,002	31,333	32,335
Bogus Creek basin									
Main Stem Klamath River	31 <sup>n</sup>	647 <sup>n</sup>	678	625 <sup>n</sup>	3,249 <sup>n</sup>	3,874	1,322 <sup>n</sup>	6,480 <sup>n</sup>	7,802
(excluding IGH)									
Misc. Klamath tributaries	92	2,470	2,562	50	1,202	1,252	831 <sup>o</sup>	3,544 <sup>o</sup>	4,375
(above Hoopa and Yurok Reservations)	0 <sup>h</sup>	98 <sup>h</sup>	98 <sup>h</sup>	0 <sup>h</sup>	222 <sup>h</sup>	222	34 <sup>p</sup>	413 <sup>p</sup>	447
Hoopa and Yurok Reservation tribs.									
Subtotals	3,825	21,858	25,683	6,245	32,333	38,578	21,548	150,641	172,189
<b>Total Spawner Escapement</b>	<b>5,444</b>	<b>43,501</b>	<b>48,945</b>	<b>11,445</b>	<b>47,072</b>	<b>58,517</b>	<b>21,916</b>	<b>179,266</b>	<b>201,182</b>

IN-RIVER HARVEST

	1993			1994			1995		
	Grilse	Adults	Totals	Grilse	Adults	Totals	Grilse	Adults	Totals
<b>Angler Harvest</b>									
Klamath River (below Hwy 101 bridge)	23	669	692	246	662	908	282	747	1,029
Trinity River basin (above Willow Creek)	172	391	563	547	260	807	794	1,687	2,481
Balance of Klamath system	1,730	2,112	3,842	1,763	910	2,673	3,268	2,124 <sup>q</sup>	5,392
Subtotals	1,925	3,172	5,097	2,556	1,832	4,388	4,344	4,558	8,902
<b>Indian Net Harvest</b>									
Klamath River (below Hwy 101 bridge)	62	3,017	3,079	81	4,362	4,443	137	5,119	5,256
Klamath River (Hwy 101 to Trinity mouth)	80	5,127	5,207	118	5,064	5,182	152	7,055	7,207
Trinity River (Hoopa Reservation)	33	1,492	1,525	94	2,266	2,360	268	3,383	3,651
Subtotals	175	9,636	9,811	293	11,692	11,985	557	15,557	16,114
<b>Total In-river Harvest</b>	<b>2,100</b>	<b>12,808</b>	<b>14,908</b>	<b>2,849</b>	<b>13,524</b>	<b>16,373</b>	<b>4,901</b>	<b>20,115</b>	<b>25,016</b>

IN-RIVER RUN

	1993			1994			1995		
	Grilse	Adults	Totals	Grilse	Adults	Totals	Grilse	Adults	Totals
<b>Totals</b>	<b>7,544</b>	<b>56,309</b>	<b>63,853</b>	<b>14,294</b>	<b>60,596</b>	<b>74,890</b>	<b>26,817</b>	<b>199,381</b>	<b>226,198</b>
In-river Harvest and Escapement	39	63	102	51	37	88	87	91	178
Angling Mortality (2% of harvest) f	14	771	785	23	935	958	45	1,245	1,290
Net Mortality (8% of harvest) f									
<b>Total In-river Run</b>	<b>7,597</b>	<b>57,143</b>	<b>64,740</b>	<b>14,368</b>	<b>61,568</b>	<b>75,936</b>	<b>26,949</b>	<b>200,717</b>	<b>227,666</b>

(continued next page)

- a/ All figures are California Department of Fish and Game (CDFG) counts/estimates unless otherwise indicated. All figures for Iron Gate and Trinity River hatcheries represent counts of fish entering those facilities. All spawner escapement figures for the Shasta River basin for 1978-1987, plus those for Bogus Creek basin for 1980-1991 are based on counts made at counting stations located near the mouths of those streams. All remaining spawner escapements and all harvest figures are estimates developed from data obtained through ongoing field investigations in the Klamath-Trinity system. Figures for years 1994 are final; 1995 figures are preliminary, subject to revision.
- b/ Figure not available.
- c/ USFWS estimate.
- d/ In 1978, the Klamath River system sport salmon fishing season was closed August 25. There was essentially no sport harvest of fall chinook in the Trinity River basin in 1978.
- e/ USFWS estimates for years through 1982; 1983 through 1993 estimates jointly made by USFWS and Hoopa Valley Business Council Fisheries Department (HVBCFD); 1994 estimates jointly made by HVBCFD for the Hoopa Reservation and Yurok Tribal Fisheries Department (YTFD) for the Yurok Reservation.
- f/ Factors for non-landed catch mortality calculated by the Klamath River Technical Advisory Team (KRTAT, 1986, "Recommended Spawning Escapement Policy for Klamath River Fall-run Chinook").
- g/ U.S. Forest Service estimate.
- h/ HVBCFD estimate. Estimate for streams in Hoopa Reservation only.
- i/ In 1985, the Klamath River system sport salmon fishing season was closed to the taking of all salmon below the U.S. Highway 101 bridge from September 9 through December 31; the Klamath from the U.S. Highway 101 bridge to Iron Gate Dam and the Trinity River from its mouth to Lewiston Dam were closed to the taking of salmon 22 inches and longer from September 23 through December 31, 1985.
- j/ Estimates for Hoopa Reservation portion of catch (=947 grilse and 1,941 adults) are of catch occurring during open fishing periods only.
- k/ Estimates jointly made by USFWS and HVBCFD.
- l/ Final figures for Salmon River basin natural spawners shown in the December 11, 1991 table were incorrect. Corrected figures, plus necessary revisions to the 1990 totals, are presented here.
- m/ Figure does not include adults that, following entry into Iron Gate Hatchery, were returned to the river alive and unspawned, and which are presumed to have spawned naturally. This includes 2,333 fish in 1994 and 8,932 fish in 1995.
- n/ CDFG estimate based on USFWS redd count data.
- o/ CDFG and USFS estimates.
- p/ HVBCFD and YTFD estimates.
- q/ 708 of these adult chinook were harvested between I-5 and IGH after the river reopened to sport angling.