

**Summary Minutes
Klamath Fishery Management Council
February 25-27, 1998
Eureka, CA
Meeting # 51**

12:00 p.m. February 25, 1998

Members present:

Dave Bitts	California Commercial Salmon Fishing Industry
Virginia Bostwick	California Inriver Sport Fishing Community
L.B. Boydston	California Department of Fish and Game
Troy Fletcher	Non-Hoopa Indians: Klamath Conservation Area
Ron Iverson	Department of the Interior
Paul Kirk	California Offshore Recreational Fishing Industry
Rod McInnis	National Marine Fisheries Service
Don McIsaac	Oregon Department of Fish and Wildlife
Mike Orcutt	Hoopa Valley Tribe (for Pliny McCovey Sr.)
Keith Wilkinson	Oregon Commercial Salmon Fishing Industry

Other speakers:

Jerry Barnes	Technical Advisory Team (TAT)
Scott Barrow	TAT, California Department of Fish and Game
Mike Burner	TAT, Oregon Department of Fish and Wildlife
Carol Davis	Commercial Troller, Port of Brookings
David Hankin	Humboldt State University
Dave Hillemeier	TAT, Yurok Fisheries Department
George Kautsky	TAT, Hoopa Fisheries Department
Ronnie Pierce	McKinleyville, California
Jennifer Silveira	U.S. Fish and Wildlife Service
Jim Waldvogel	TAT, SeaGrant
Jim Welter	Salmon Advisory Subpanel, Oregon Recreational Fisher

McIsaac: I convene the fifty-first meeting of the Klamath Fishery Management Council (KFMC). I note that there are three members missing: McInnis, Boydston and Bingham.

Barrow: McInnis and Boydston are on their way.

Agendum 1. Review and approve agenda.

McIsaac: Are there any additions to the agenda?

Fletcher: I would like to add something to Agendum 19: a letter to the Klamath River Basin Fisheries Restoration Task Force (TF) from the KFMC, suggesting where we go from here on the Shasta issue.

McIsaac: Let's add that as Agendum 19-B.

Orcutt: I would like to add a presentation by Dr. David Hankin after 3:00 p.m. today.

McIsaac: Let's fit that between Agendum 10 and 11. What can we expect from this presentation?

Orcutt: Dr. Hankin has a graduate student reviewing Trinity hatchery practices and marking. He's looked at how to incorporate revisions into the hatchery practices to improve the accuracy of predictions and has recommendations in his report.

Bitts: I would like to add a report on the Endangered Species Act (ESA) listings.

McIsaac: See that under Agendum 13. Rod McInnis might wish to make an announcement at that time.

Wilkinson: I'd like to insert a report from the California Coastal Fish and Wildlife Office (CCFWO) into Agendum #23. I have asked Bruce Halstead to present that.

Iverson: Funding for monitoring should be addressed.

McIsaac: Let's insert as addendums to Agendum 23: a report from Halstead, other funding updates, and pertinent updates from the Six Chairs meeting.

Iverson: The CCFWO wanted to do a screw-trapping report.

McIsaac: Let's insert an item between Agenda 25 and 26: U.S. Fish and Wildlife Service (FWS) results of trapping with a screw trap. Are there other suggestions?

Wilkinson: **I make a motion to adopt the agenda.**

Seconded.

Motion passes unanimously.

Agendum 2. Review of the minutes, October 1-3, 1997

McIsaac: Were there any comments received on the minutes (Handout A)?

Silveira: No comments were received.

Orcutt: I didn't receive these minutes until a couple of days ago. I would like extra time to review them.

McIsaac: Let's move Agendum 2 to Friday and put it on as Agendum 28.

Agendum 4. Updating of Technical Advisory Team members.

Kautsky: Jerry Barnes has retired. We have presented a memo (Handout B) explaining that the seat has been

useful to the Technical Advisory Team (TAT). Mike McCain has modeling experience which would be useful, and he would be available to work on the TAT. We request, since the Forest Service is willing to allow him, that he be appointed to the TAT.

Wilkinson: In our first meeting, the Forest Service wasn't included on this Council. I made a motion that they be included in the TAT.

McIsaac: Iverson, is there a formality that needs to be observed here?

Iverson: We are prepared to reimburse TAT members for travel. The TAT actually precedes this body.

McIsaac: Let's introduce all the new members of the TAT.

Kautsky: Scott Barrow is a new candidate to represent the California Department of Fish and Game (CDFG). This is Rich Dixon's last season. Barrow will shadow Dixon for this cycle and then replace him.

Barrow: Dixon is going over to the Inland Fisheries Department in April.

Kautsky: Mike Burner, of the Oregon Department of Fish and Wildlife (ODFW) is new. Curt Melcher came to our last TAT meeting in his place.

Burner: Melcher is a member of the ocean salmon team of the Pacific Fisheries Management Council (PFMC).

Kautsky: Mike Morford recently passed away. He was the ocean recreational fisheries representative. Does ocean sport have anyone in mind to replace him?

Kirk: I will think about it. I wasn't aware he was our representative until recently.

Bostwick: Each Council member appoints their own representative on the TAT. There's no Council approval needed to appoint your technical team representative.

McIsaac: I would like to extend a welcome to our new TAT members.

Agendum 5. Report of the Harvest Allocation Work Group (HAWG).

Wilkinson: We met in Arcata for half a day. It was a workshop process. No minutes or reports were kept. We discussed the inriver issue. Several people left with changes to discuss further. The ocean 50/50 split was also discussed. Some people at the meeting intimidated the process. These people were not the principals, nor the staff of the principals, nor technical people. They were allowed to stay, but it would not be good to repeat this. We remind members of that.

Bostwick: The State of California suggested several things to help our fishery: marking hatchery stock, and off-site rearing ponds. These are expensive, so we would need to raise the cost of punch cards to fishermen.

Boydstun had good ideas for the future.

McIsaac: Let's skip Agendum 6, since Boydstun is not here yet.

Agendum 7. Report on 1997 fall chinook returns to the Klamath River.

Barrow: See (Handout C). There were 81,732 fish last year. That's 85 percent of the 1978-1996 average. Grilse were 47 percent of the average. The postseason harvest estimate was 64 percent of the projected estimate. The spawner escapement was 105 percent of the estimated amount.

McIsaac: What happened in 1998 regarding the lockout of hatchery fish?

Barrow: At Iron Gate Hatchery (IGH) they reached their quota of eggs, so they allowed a bonus fishery below the hatchery.

McIsaac: Did angler harvest go over the preseason projection because of that fishery?

Barrow: Yes.

Fletcher: Is that fishery even monitored?

Barrow: I don't know.

Bostwick: Look at (Footnote T) in (Handout C).

Fletcher: I don't think those fish are accounted for in the allocation. It could be a significant overage.

Waldvogel: Call Mark Pisano. I think they are accounted for somewhere.

Wilkinson: The bonus fishery extends 2,700 feet below the hatchery. I can't imagine that including 1,000 fish in this kind of abundance year.

Hillemeier: (Footnote T) says they are not counted.

Bostwick: Above Coon Creek there's no creel census due to difficulty of terrain. We need to look at a better way of counting that.

Barrow: Bob McAllister is reviewing that now. See (Footnote Q).

Bitts: I noticed (Footnote M). Were the fish included in the natural spawning estimate?

Barrow: Yes.

Orcutt: We started a creel census. Approximately 600 fish were counted between the marking site to Weitchpec.

McIsaac: Is that in the 12,000?

Orcutt: Yes.

Fletcher: See (Footnote S).

Barrow: It includes those.

McIsaac: Is there double counting regarding the tribal catch half of the forecast? Why?

Fletcher: The run was later for springers, as we mentioned in October, for the second year in a row. The run wasn't as sustained as usual. We had a two-day closure, based on past data and preseason prediction, to even out the impacts between the subbasins, the Trinity and Klamath. It was a conservation protection measure. We were short of the quota.

Bostwick: Was effort the same as other years?

Fletcher: Nighttime effort could have been down, but not by much. The fish came through in a few spurts. There needs to be a compilation from the TAT to help us read the megatable.

BREAK

McIsaac: I would like to announce that a document on Klamath salmon, *Understanding Allocation*, by Ronnie Pierce, has been completed (Handout D). The Council commends Pierce's effort.

Agendum 8. Reports on 1997 harvests to supplement information provided at the October 1997 meeting.

Bitts: The harvest number has been revised since fall, down from 700,000 fish to 500,000 fish. It was not quite as good a season as we thought.

Agendum 9. Technical Advisory Team reports and revision of the Klamath Ocean Harvest Model (KOHM) for 1998.

Kautsky: (Handout E) shows projected versus actual landings by KOHM area.

Bitts: There's a discrepancy in the number; the total shown should be closer to 500,000.

Kirk: In the Klamath Management Zone (KMZ) sport fishery, we were under-predicted Klamath for impacts by 50 percent. We've been under for nine of the past ten years.

Bitts: This is the first time since 1992 that the Southern California Cell (SOC) came in under.

Bostwick: I see that the impacts for the SOC were larger than both the inriver and KMZ sport allocations put together.

McIsaac: Let's go to (Handout F), the KOHM Revision Update.

Barrow: The revised KOHM is still in the revision process. It won't be used this season. Dixon is working up a modification of the adjustment factor. It will be similar to last year's factor of 1.63, but of less magnitude.

Fletcher: Make us aware of adjustment factors as soon as possible. Don't leave us uninformed like last year.

Bits: The downward adjustment factor of Oregon impacts was done in a slightly different manner. It happened ad-hoc last year. I ask that you look at the overall performance for all areas of the model.

McIsaac: What is the Salmon Technical Team's (STT) plan?

Barrow: There was a discussion at the meeting of how to use the old model, since the new one is not ready.

Barnes: Regarding what Kirk said about the KMZ sport: the new model will use a new base period that will include new KMZ sport data. We are trying to get data reflective of current conditions, but tag recoveries are very sparse, so we still need the old data. We need to look at the catch areas. The old catch areas no longer exist.

Kirk: The 1.63 factor recommendation will be explored. When will that happen?

Barrow: In March or sooner.

Iverson: At our October meeting, Boydston raised some issues to be corrected. I don't see all of them in the handout.

Barrow: Yes, I will read you Boydston's three comments from the October minutes. 1) "I recommend there be a section in the model on the limitations of the model. There are a number of assumptions that go into this. A simple model is: we have an initial population of fish, then fishing occurs, and then fish escape to the river. That is the one-cell model. In fact, we have partitioned it into a bunch of cells, geographically and temporally arranged. We don't have initial population and final population estimates for each cell. So, inherent in this model is a basic assumption that we are taking a proportion of a whole population of fish that may or may not actually be in the cell. That needs to be explained in the model someplace". We've taken care of that problem as described in (Handout F). 2) "a major positive revision in the model is that length frequencies are affected by fishing. We have snapshots of the length frequency of fish in the middle of a fishing regime, which automatically biases downward the average size of fish remaining in the catch. Because you have a 26-inch size limit, those fish that grow fast and are bigger to start with, tend to get cropped off first. In the absence of fishing, you would see a different growth rate indicated in length frequencies. I think you need to point that out." The length frequencies are addressed in (Handout F). 3) "How you treat the northern impacts needs to be explained". All those impacts are now rolled into the NOR cell.

Iverson: Will contact rates be explained?

[Boydston and McInnis arrive]

Barrow: Yes.

Fletcher: What about the birthdate and the late fall fishery?

Barrow: In August we decided to put that off until next year.

Agendum 10. Preseason fall chinook abundance prediction.

Kautsky: In (Handout G), see (Figure 1) on page 6 for the regression we used for the age-3 estimate. The low jack number in 1997 gives 88,204 predicted in the ocean. We used all the data points, including El Nino years. See (Figure 2) on page 7, the age-4 prediction. It is also low on the curve. Only 34,000 age-4 fish were predicted. The data points found in (Table 1) are derived from the cohort reconstruction.

McIsaac: Regarding (Table 2) on page 4: was there any change in the methodology to project age-4 fish in 1997?

Kautsky: No.

Pierce: When was the regression to predict age-4 fish switched to force the regression line through zero?

Kautsky: That was about done in 1994 or 1995. It made biological sense. Without forcing the line through the origin, you could have zero age-2's one year, predicting some number of age-3's in the ocean the next year. I believe they looked at that in the Scientific and Statistical Committee (SSC) document.

Boydston: Why are there nearly the same number of jacks in 1997 as in 1996, but the predicted age-3's are quite different?

Kautsky: The 1997 projection of age-3 fish was based on 12,000 jacks. Now the number of jacks you see in (Table 1) is 9,600, because that number was later updated in the megatable.

Bitts: This raises a question about your procedure for estimating jacks.

Kautsky: We get numbers from the megatable for the jacks and the adults. Scale aging is done by the Yuroks and the FWS to divide the megatable numbers into age-3's and age-4's. Sometimes, after the fact, we find corrections in the jacks, but we don't change the numbers. Other agencies may change them, but it's not standardized.

Fletcher: We need to get the agencies to standardize.

Kautsky: Let's compare preseason versus postseason ocean abundance estimates. In (Table 2), in 1996 and 1997, the age-3 postseason estimate is preliminary. The 98,000 postseason age-3 estimate for 1997 is derived using the inriver run divided by the average maturation rate with harvest added in. Last year we overestimated age-3 ocean abundance. In 1995 we were three-fold off, yet we didn't do anything much different. We've been working on refinements of prediction methods. See page 5 of the stock abundance report. The stock size abundance goes into the harvest rate model to predict escapement to the river mouth if no ocean fishing has occurred. That number is 69,600. So what percentage of that will be naturals? We use the past five years to get the average hatchery/natural ratio and apply that to escapement to see if we meet the spawner floor. We do. Then we look at harvest with full fishing. That's on page 5 in the last paragraph. So we can clear the floor with no fisheries, but not with full fishing (see page 8).

In 1997 the percentage of spawners that were natural was 71 percent. The predicted percentage was 69 percent. The prediction came from the previous five years. This year we used the years 1993-97. We had a discussion of hatchery practices and how it will affect these numbers. We are looking into that. Finally, harvest

rates in the ocean won't be 20 percent. It will be a year not unlike last year with something below an 8 percent harvest rate (see Table 1).

Boydston: Are there late fall coded wire tags (CWTs) in these numbers?

Kautsky: We don't have that information.

Boydston: I want to know that before March.

Fletcher: Tagging of those late fall fish began in 1992. Those tags won't be there this year.

Iverson: You mentioned discussing hatchery practices?

Kautsky: To calculate the hatchery and naturals seen in the megatable, we use an average of the last five years. We are concerned that in high abundance years, the hatchery gates were closed and hatchery fish that strayed were counted as naturals. The problem is that this doesn't happen in every year. Now the State has committed to admit all fish and not close the gates. By next year we want to know what the practices were at the hatcheries for the past five years.

Wilkinson: If the gates are open, you could have an attraction to natural fish. That's a two way street.

Kautsky: In 1992 that may have been the case.

Bostwick: Didn't public input affect the State's decision?

Bitts: I believe Bostwick is correct. They also sample eggs throughout the run. I would hate to be a hatchery manager and change my practice due to public pressure, then have scientists yell at me for changing.

Kautsky: We would just like to know what they did.

Boydston: It looks like the percent spawning in natural areas is correlated to the size of the run. Why not just use that instead of the five-year average?

Kautsky: We had thought about that.

Boydston: I'll have Bob McAllister call you regarding the hatcheries.

McIsaac: The TAT has not made a calculation of what the age-4 harvest rate would be?

Kautsky: We need to have the inriver allocation to do that.

McIsaac: Let's start with the assumption of last year's inriver allocation to begin the discussion tomorrow.

BREAK

McIsaac: Now we have a modification of the agenda. We are going to insert a presentation on the Trinity River Hatchery (TRH) evaluation.

Orcutt: I'm pleased to introduce Dr. David Hankin. Some background: TRH is a federal mitigation hatchery. It's funded by federal dollars, but the CDFG runs it. Three to four weeks ago there was a trust evaluation meeting on the hatchery. The CDFG has to recognize the tribes as co-managers. One of the mandates of reauthorization was that the hatchery not be detrimental to natural stocks.

Hankin: Thanks for having me on such short notice. Back in the 1980s, I wrote a paper on a constant fractional marking methodology that would allow statistical estimates of the percent of fish of hatchery origin in the run. Now we still aren't operating hatcheries in ways to estimate this simple quantity. We have a problem with declining natural stocks, but we have no idea how big it is. Ken Newman collaborated with me on revisiting this in a new, more sophisticated setting at TRH. Graduate student Dave Zajanc and I wrote a review of the annual production cycle at the hatchery. We also expressed concerns and made recommendations. TRH is successful and efficient in fish husbandry. There are two flaws in their marking and enumeration. The first is that the chinook taken for marking come from a single pond. There is a substantial difference in mean size of fish between the different ponds. It is very bad that they all come from one lot, because there is a correlation between size and survival. They should use different CWT's for different size classes and mark fish from all ponds. The second flaw is that no one knows how many unmarked fish are released. There is no formal estimation made after the eggs are spawned. Mortality from spawning to release is unknown. It's a visual guess that could easily be off by as much as 20 percent. I suggest pulling fish from each raceway and marking the same number from each to estimate abundance while avoiding handling the fish. Coleman National Fish Hatchery is no better, nor is IGH. It would be good to visit the hatchery to see what is feasible. The problem is that people get defensive about changing customary procedures. There are politics involved. But support from users would help.

Boydston: What would we gain if we know how many hatchery fish are released?

Hankin: We would then be able to accurately estimate the hatchery/wild fish ratio. Constant fractional marking can't work right as it is.

Boydston: The ESA requires more information on wild versus hatchery fish, but we need to make that argument.

Hankin: A Trinity River study I did years ago showed that 50 percent of the natural fish were hatchery strays.

McIsaac: What about the additional mortality due to tagging, up to 20 percent?

Hankin: I've revised my schemes, calling for constant rates of marking yearlings versus fingerlings. In Washington they have had success with thermal marking of odoliths using incubators. Lots of research is still needed, but there is promise for the future.

Iverson: If you compared the hatchery/natural ratio estimated from constant fractional marking with estimates the TAT is using, will it help or will it just put a confidence interval around it?

Hankin: There are two different things here. I am talking about finding a true percent of hatchery fish. Currently, you include hatchery strays in with naturals.

Fletcher: A review is needed at both TRH and IGH. Orcutt, do you need support from us?

Orcutt: At the hatchery it seemed easy, but I heard some reservations about it later. I don't understand how hatchery policies are made.

Hankin: That's the problem. There is no forum to review and revise them.

Fletcher: I think progress can be made from the tribes.

Kautsky: To answer the question of why we should be worried about this: it's fundamental. Production multipliers for CWT expansions are used in the prediction of ocean impacts. If we don't have a handle on the unmarked portion of the hatchery release, our predictors will be all over the place.

Boydston: Is the multiplier based on the number released or the actual number of adults returning?

Barrow: It's the number released from the hatchery divided by the number marked.

Boydston: This is a separate discussion. There are several proposals here. The first is getting a better estimate of the number released. I need to know what that entails.

Hankin: Delay the enumeration until the time of marking or a convenient time. Take a random sample linked with marking.

McIsaac: There is a possibility of motions of support and technical team assignments after public comment.

Agendum 6. Coordination with the California Fish and Game Commission (CFGC) in the 1998 season.

Boydston: This is what happened since October. Jerry Barnes made a presentation to the Commission in November; I made a presentation in December. In January they had two public hearings: the first in Weaverville where 20 people attended and there were six or seven presenters, and the second in Eureka where 50 people attended and there were a dozen presenters. In February the Commission met in Sacramento and received further input. The objective was to narrow a range of allocation options, but Mr. McGeoghan wasn't there, so they didn't narrow a range. They will meet in San Diego on March 5-6. Mr. McGeoghan will make a recommendation. See (Handout H), which Barrow presented at the public hearings in Eureka and Weaverville. This is not a recommendation from the department. There is a table showing historic allocations and projections of different allocations using hindcasting. It is a simple analysis of what you would need to do to meet different allocation scenarios. The Commission is still taking comments. This will be to set a policy goal, but the final regulation won't be set until June.

McIsaac: Our Oregon staff presented (Handout I) at the TAT meeting.

Kirk: Last year they made a commitment to get in line with the timeline of this Council and the PFMC. I have copies of letters stating that. The policy will be made, but the regulatory enactment will be later. I take them at their word.

Fletcher: Does that increase McInnis' comfort level?

McInnis: I'm comfortable with the Commission's good faith commitment. Can the TAT take the Commission's decision and give us an idea of harvest on the following Sunday?

Kautsky: Yes, if we use the harvest rate model. Beyond that, with the KOHM, we need guidance from the KFMC on the allocation within the ocean.

Orcutt: I'm concerned about seasonal management. The numbers are very soft with the current assessment. It's a shot in the dark. If we get to June and seasonal management is adopted, the KFMC won't meet again.

McIsaac: The KFMC had consensus on seasonal management for the KMZ sport.

Orcutt: We have more comfort now with that, but the data are better there. For inriver areas with no creel census, we worry about overharvest.

Fletcher: It takes some years of data to get seasonal management right. It's not easy, even with a closely-watched fishery.

Bostwick: Above Coon Creek there is essentially a seasonal fishery anyway. It is time management.

Boydston: We pointed out to the Commission that a seasonal approach would need conservatism applied. They would hook-up with our technical team and get our comments.

McIsaac: Let's have public comment on any material in today's or the remaining agenda.

Agendum 11. Public comment.

Davis: I'm Carol Davis, a commercial troller from Brookings. Why does the inriver count start on August 6?

Bostwick: Our count started then. The tribal count started later, on account of the spring chinook.

Davis: The quota starts on August 6?

Bostwick: Yes, on adults.

Boydston: Let me make a call regarding the hatchery. Kautsky, can you first write up what is needed?

Kautsky: We have not met with the hatchery manager and his supervisor. Total enumeration is not feasible by bucket brigade, but maybe we can find try to find something better. They feel they aren't a research facility. If we can tell them this isn't for pure science, but for management, that would help. The representative marking isn't a problem for them, but without the total enumeration it won't work. Time is of the essence here, because we have to buy tags.

Fletcher: If Boydston isn't successful, then we can write a letter.

Bitts: The letter should include information on why this is useful.

Fletcher: Can the TAT write a letter for vote on Friday?

Iverson: This is another example of making an effort to be precise on one side of the basin and not the other.

Fletcher: Iverson is right. We need to address the Klamath side so both hatcheries are comparable.

McIsaac: We will revisit inriver sport tomorrow after we have additional information.

Agendum 13. Anticipated issues and constraints affecting 1998 harvests.

McInnis: Earlier today we talked about the National Marine Fisheries Service (NMFS) making a listing announcement. That will be after 10:30 a.m. tomorrow.

Boydston: McInnis, this isn't going to affect 1998 harvest, is it?

McInnis: At Santa Rosa, I said don't expect anything new. Tomorrow's announcement won't carry an automatic prohibition on take, but it will put federal agencies into a confirming process. The final listing will not happen for 12 months.

McIsaac: What about steelhead?

McInnis: An announcement will be out by March 13. That won't constrain ocean fisheries, but there could be changes inriver. Those changes are already being considered by the State.

McIsaac: Let's recess tomorrow until 9:00 a.m.

RECESS

9:00 a.m. February 26, 1998

RECONVENE

Members present:

Nat Bingham	Pacific Fisheries Management Council
Dave Bitts	California Commercial Salmon Fishing Industry
Virginia Bostwick	California Inriver Sport Fishing Community
L.B. Boydston	California Department of Fish and Game
Troy Fletcher	Non-Hoopa Indians: Klamath Conservation Area
Ron Iverson	Department of the Interior
Paul Kirk	California Offshore Recreational Fishing Industry
Pliny McCovey Sr.	Hoopa Valley Tribe
Rod McInnis	National Marine Fisheries Services
Don McIsaac	Oregon Department of Fish and Wildlife

McIsaac: How is it set up? How did it perform? In the original design of this fishery to catch 3,200 fish, there is the estuary component, the Trinity above the weir, and the rest of the basin. Is it above the weir only?

Sinnen: No, the whole Trinity river. We apply tags above the weir. That's where we do our estimates. Below the weir, the Hoopa Valley Tribe does a creel census.

McIsaac: How would you target a seasonal approach?

Sinnen: They analyzed past tagging to see when harvest was occurring and designed a season to meet the quota. Unfortunately, quotas change every year and to change seasons every year would be too much. There are two closures to protect fish. There is an early one below and a later one above, to give both upriver and downriver folks a shot. The old 28-day closure didn't give the upriver people a shot.

McIsaac: You can't adjust the season every year?

Sinnen: You would have to do emergency regulations, because the regulations are set for two years at a time.

McIsaac: The fact that there is no change with the size of the run is troubling. Do you not have an expectation of meeting the quota?

Sinnen: There is no way to know when it's met. To go to a quota system, a whole river creel census would be necessary, and that is prohibitively expensive.

McIsaac: When the season is set, do you expect to meet it or exceed it?

Sinnen: We don't expect anything. We assume some stable harvest rate.

McIsaac: The entire basin harvest rate isn't stable.

Fletcher: Did you take into account the harvest below Willow Creek weir? This year 645 fish were caught in there. That is almost half of all the fish that were caught in the Trinity Basin. You will have to take that into account in the future. There are lots of sources of information. A 36 percent overage will compromise our ability to meet escapement.

Sinnen: That harvest below the weir is now accounted for in the megatable (Footnote T). In the future it will be taken into consideration. Prior to the last two years it wasn't counted in the harvest. The "balance of Klamath" does not include the Trinity River.

Kautsky: Our census below the weir down to Weitchpec began two years ago.

Sinnen: Fifty percent goes to the lower river anglers and the rest is divided between the upper Klamath and Trinity Rivers.

Barrow: To move to the next question: hatchery practices in 1996 did change to admit all fish regardless of reaching their egg quota. We're going to document the megatable regarding (Footnote T). In 1997 the hatchery

met their 8,000 adult escapement in October and did have a bonus fishery above I-5, but no creel census was done due to lack of funds. There was a harvest of jacks allowed upriver after the 28-day window.

Fletcher: When the fishery was closed, jack fishing was allowed. A jack-only fishery is significant because it predicts age-3's. We need to monitor that fishery.

McIsaac: Will the TAT go back and estimate that?

Barrow: Does the Council want that?

Boydston: I asked the TAT to review and make a recommendation on the inriver issues. Then the Council needs to find funding. This could be very expensive.

McIsaac: Let's note that the jack fishery was not counted. The "balance of the Klamath" has the highest jack numbers in the system.

Lau: We had a high harvest of jacks in Area 2. We put that in a formula to calculate the Area 3 harvest. The grilse adult break-off was smaller than what we used at the start of the season, at 59 centimeters. It could actually be 49-52 centimeters. A lot of those fish could be adults counted in with the jacks. There was a sense that there were a lot of jacks though.

Kautsky: Last year, the 1996 megatable gave jacks as 12,100. This year, the megatable says the jacks in 1996 were 9,500. That's the updated number, a 21 percent increase. We base our abundance prediction of age-3's on that. If there is such an error this year, it could affect the predictor. Can we find out why that happened?

McIsaac: The TAT could look into that.

Lau: There's a danger that once the quota is reached, jacks are targeted. It's very biased data.

Fletcher: We don't know one way or another. Have the TAT find that out.

Barrow: I think the change was based on scale analysis.

Sinnen: When we go into a season, we don't know the cut-off, so we use a standard fork length of 55 centimeters. After that we look at scales and adjust the estimate.

McIsaac: So ocean conditions affect the length differently every season.

Boydston: I want the TAT to review all these things and make necessary changes by our March meeting if possible.

Wilkinson: Boydston, do you have a budget for a creel census from I-5 to the IGH? It's absolutely necessary to have that.

Boydston: We submitted that to the TF. It was not funded.

Agendum 13. Anticipated issues and constraints affecting 1998 harvests.

McIssac: Should we look at the handout for Agendum 18 (Handout J)? Does the Council want to hear about that now?

Kautsky: These are runs of the quick harvest rate model using 15, 20, and 33 percent allocations for inriver. See the ocean harvest rate under projected ocean impacts. There is approximately a 2 percent change in the rate between the 15 percent and the 33 percent allocations.

Bitts: Or a 25 percent reduction.

Wilkinson: What was it last year?

Kautsky: Eight percent was realized and 12 percent was the target on age-4's.

McIssac: Was the target of 12 percent before taking away the large fall component?

Bitts: The previous fall, 2,500 fish were taken; two-thirds were assigned to the previous fall and one-third was taken out of that 12 percent harvest rate.

Kautsky: Yes, see the line at the bottom regarding impact on tribal harvest. It changes slightly. There is a loss of about 400 fish across the three scenarios due to a change in age structure of fish in the ocean.

Boydston: Regarding the KOHM and the higher size limit in the commercial fishery: we have a 25-inch limit in the commercial fishery. A proposed enhancement to the KOHM was to add a size component with new model parameters. Have you considered changes in the harvest rate model?

Kautsky: Not really. I can't tell you how we would do it. The model is based on assumptions of a 26-inch limit.

Boydston: It may be overestimating ocean commercial impacts. I want to see that at our March meeting and also for the KOHM.

Kautsky: The new KOHM won't be used this year.

Boydston: This is two years behind schedule.

Hillemeier: It would depend on the season's structure. We would have to do it in the KOHM.

Bitts: The main effect would be early in the season in July. We might want to consider doing it earlier in the season.

Boydston: I at least want discussion on what impact it might have.

Iverson: Why is the projected inriver harvest so much lower than last year? It is only as high as last year with the 33 percent inriver allocation, even though our abundance prediction is not that different.

Kautsky: There is a bigger difference in the age-3 prediction. I think it has to do with that.

Bits: You have reduced stock size and lowered total harvest rate. This happens when you multiply the two.

McIsaac: Under projected ocean impacts, ocean harvest goes down in the Klamath by 1,000 fish. Can you shed light on what that might mean for all catch in the ocean? If you look at the handout from Oregon staff (Handout D), it doesn't directly address that. What is the ratio of Klamath to other fish?

Kautsky: Those are contribution rates. As you move further away from the Klamath, the rates change.

Bingham: The Central Valley abundance projection is 1.15 million, which is higher than last year.

Boydston: What is the Rogue River projection?

Burner: The 1998 projected ocean abundance is about 4,100, compared to 5,000 last year. That's approximate.

McIsaac: I thought it was more like 41,000.

Bits: Is that an index?

McIsaac: Burner can check.

Bits: See (Handout I) from the Oregon staff. There is a low Klamath prediction and a high Sacramento prediction. The ratio of fish foregone in the SOC will be much higher than shown here for past years.

Agendum 14. Should inriver fisheries be decoupled from the abundance predictor?

Bits: Hillemeier was working on this. In 1995, we let many fish pass by due to the underprediction.

Hillemeier: We are looking at catch-per-unit-effort (CPUE) at San Francisco. This has potential.

Fletcher: We have two years of data on late springers. Maybe we could find other factors to use.

Bits: When you think you have a good mechanism, will you come forward?

Fletcher: Yes.

Added agendum. Endangered Species Act listings.

McIsaac: McInnis is here now. We held comments on the ESA monitoring constraints for already-listed species until he came.

Orcutt: When NMFS commented on coho, the Hoopa Tribe sent a letter about restoration monitoring. As long as the Trinity River Project is there, there are impacts on coho in excess of fisheries. The Hoopa Valley Tribe's position is that the Central Valley Project Improvement Act (CVPIA) funds should be ongoing for monitoring for ESA and management. We were told to go to Office of Management and Budget (OMB) and work on the budget. We did, and we got about \$2 million added to the budget. Klamath Mountains Province (KMP)

steelhead monitoring is called for in the California plan. We need to link the ESA and its added requirements with the responsible parties in the basin.

McInnis: There are two issues here. There is a major problem: a lack of information on run size for coho, steelhead, and chinook. We need to address that. There are different funding sources. The responsibility falls on project sponsors. Whether fishing, diversion, or hydropower, agencies must consult with NMFS. The second issue is the concern that you have a responsibility to monitor, but if you do, we'll arrest you for it. Those type of activities will require permits. Prosecutorial discretion will be used to benefit the fish. This a bizarre situation, a transition period.

McIsaac: Do you see these two issues as being important for 1998?

McInnis: I don't see it as being any different from last year. There is a no-jeopardy opinion for a one-year period.

Bingham: The coho committee submitted questions to NMFS on this issue and got back a response. The Santa Rosa office is now issuing permits. It's not working well, but it is working.

BREAK

McIsaac: McInnis, do you have an announcement for us?

McInnis: There has been a press conference to announce proposals for listing chinook as a result of almost two years of review. There was a federal register notice proposing some Evolutionarily Significant Units (ESU's) of chinook be listed as threatened, endangered, or not warranted. I have given a handout showing those ESUs (Handout K). Please scratch out the caption for Figure 23. It does not apply; I just used this map as a base. For the Upper Klamath and the Trinity ESU, upstream of the confluence of the Klamath and Trinity Rivers, there is no listing. This ESU lumps both fall and spring chinook. For the Southern Oregon and California Coastal ESU, from Cape Blanco to San Francisco (although the exact southern boundary is not known), there is a proposed listing as threatened. Sacramento winter run is still listed as endangered. Central Valley spring chinook are proposed to be listed as endangered. Central Valley fall and late fall chinook are proposed to be listed as threatened due to the contraction of the range and the fact that wild stocks are in trouble. The Oregon Coastal ESU is not listed. There are 12 months from the date of this being published in the federal register until the date of the final decision. New information and comments will be considered.

Kirk: About this issue of the southern boundary of the Southern Oregon and California Coastal ESU, can you clarify where you draw that dotted line?

McInnis: It will be determined and probably announced in the federal register.

McCovey: In the Sacramento, fall, spring, and winter chinook are separated. Why are they lumped in the Klamath? Spring chinook are more threatened than fall chinook. You are skewing the management.

McInnis: You're exactly correct. It has an impact. The decision was related to genetic work. Also, the Snake River ESU fall run is already listed as threatened, but it will now include the Deschutes. Genetic information says

it should be in the Snake River ESU. We are accepting comments on this.

Bits: There are two reasons for the listing of the Central Valley fall chinook. The first is the scarcity of San Joaquin River fish, and the second is a preponderance of hatchery fish. Does the service have information on hatchery fish returns to the Sacramento?

McInnis: Our information comes from the CDFG. Spawning goals for the hatchery fish and the naturals are combined. There is concern that “natural spawners” are genetically of hatchery origin.

Bits: I can't find that information. If NMFS has it, please share it.

McInnis: I don't think we do. Where there is ignorance, our policy is to assume the worst.

Boydston: The Biological Review Team (BRT) report is the basis for these recommendations. We will review that report.

McInnis: These reports become public documents after the recommendations.

Bingham: We can start working on getting the information together. I think the Klamath spring run was just overlooked because of lack of attention. We are now faced with the consequences of social decisions made back in the 1930s: the Central Valley Project (CVP), the California Water Project (CWP), and the concept of replacing lost habitat with hatcheries. Now we have a million hatchery fish coming back and a BRT that reflects the thinking that hatcheries have problems. This is a big train wreck now, affecting two big sectors of the economy. Everyone, including the BRT, should question their basic assumptions.

Bostwick: Have the constraints on winter run chinook been successful?

McInnis: Yes, constraints on the fishery may have been responsible for a three-fold increase in spawners. In addition to that, the operation of the CVP has changed. Three major diversions now have improved screens and there have been flow changes.

McIsaac: From the Oregon perspective, we want to see the BRT draft and rationale. Hatchery influences may be leading to extinction, but there would hardly be any fish without mitigating hatcheries. Where will this lead in the future?

Agendum 13. Anticipated issues and constraints affecting 1998 harvests (continued).

McIsaac: Boydston, can you address steelhead?

Boydston: Regarding the Klamath Mountain Province (KMP) ESU, proposed by the BRT as threatened, the states of California and Oregon are working on a management plan. We have a plan draft on the street with six main goals. First, in the sport fishery, we have emergency adjustments to the regulations specifying non-retention of steelhead, except for two hatchery steelhead. The tributaries to the Klamath will be closed to all fishing to avoid juvenile steelhead mortality. The Shasta and Scott will have summer fishing with barbless hooks using lures. The second goal is 100 percent marking of hatchery steelhead. The third goal is monitoring, which would include restarting the lower river seining to estimate adult returns and monitoring standing stock in the tributaries. This is

all proposed, because the final listing will come about March 13. There is a management group for the KMP made up of agencies and the public from California and Oregon. There is legislation for funding if there is watershed restoration from the Thompson Bill. That amounts to \$3 million this fiscal year and \$7 million per year for the next four years for all areas in the steelhead ESU. There is a time schedule to review the Forest Practices Act.

Fletcher: Is monitoring a side benefit of this? Will they offer funding? Also, regarding that management group, tribes should be included.

Boydston: Director Schafer applied a budget change to allocate \$1.4 million a year. That would cover more than just the KMP area. NMFS will fund a portion of it. Regarding the coordination group, it doesn't recognize specific involvement, but it recommends coordination with the tribes.

Agendum 15. What goals are necessary in the non-KMZ ocean allocation in order to meet the Council's goals?

Bitts: We made changes last year that messed up the 50/50 California/Oregon ocean allocation.

Boydston: I propose we go back to the 1996 model to develop the season's structure to balance opportunity rather than catch.

McInnis: Two aspects were changed: lower effort in Coos Bay, and the addition of the 1.63 factor applied to the SOC cell.

Boydston: I propose not to use those correction factors as an interim until we get the new KOHM.

McIsaac: In prior council votes in 1996, the 50/50 was to allocate catch outside the KMZ. Are you saying to change that to days fished?

Boydston: Yes.

Bingham: This is an allocation issue. May I read a couple of lines from Section 301(4) of the Magnussen Act? "Conservation and management measures shall not discriminate between residents of different states. If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be a) fair and equitable to all such fishermen, b) reasonably calculated to promote conservation, and c) carried out in such a manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges." Recent authority added Section 104279: "the rebuilding of overfished stocks shall take into account the importance of fishery resources to fishing communities in order to a) provide for the sustained participation of such communities and b) minimize adverse impacts to the extent practicable on such communities." We need to be mindful of these.

McIsaac: From the Oregon perspective we seem to have an agreement. The 1.63 factor was wrong. We don't know if days fished will do it, but we like the intent.

Wilkinson: From the Coos Bay perspective, we paid the price for small gains in time and the 1997 structure.

Boydston: I have to leave after lunch. I will continue to work with Kautsky on the hatchery issue. I made a phone call, but it was not as easy as I thought.

LUNCH

Agendum 16. Should the late fall run be managed separately from the fall run?

Bitts: We have really covered this item already.

Fletcher: The issue of minimum emergency subsistence needs of 12,000 fish may come up this year.

McIsaac: What is the origin of the 12,000 number; is it commonly accepted?

Fletcher: It is in the five-year harvest sharing agreement. In past years we have raised the issue a couple of times, but not recently. We've held this position consistently.

McCovey: The Hoopa Tribe is on record that the 12,000 fish is a minimum number. We think it's a little shy.

Bostwick: Is that both Yurok and Hoopa?

Fletcher: Yes; that's consistent with the 1987 sharing agreement.

Bitts: That was an example of a reason to come back to the table to renegotiate that agreement.

Agendum 17. Public comment.

Duggan: My name is E.B. Duggan from Willow Creek. I represent the lower river communities. We don't want to see fisheries disappear. I want to correct one item: the estimated over-harvest of fish on the Trinity. You haven't considered changes. In past years, 50 percent went above Coon Creek and 50 percent went below Coon Creek. This year, 52 percent was below Coon Creek and 48 percent was above it. The fisheries from I-5 to the IGH, and at Cedar Flat to Lewiston, were extended because of hatchery attainments. My main concern is for Trinity businesses and the economy of the valley. The Forest Plan Option 9 devastated our economy. Some people went away, and some went out of business. President Clinton asked us to diversify, and some did by increasing the tourist industry. Now \$1 million a year in new money comes from fishing tourism. That figure is from the California Office of Tourism. That gives us \$150,000 in tourist organization tax to reinvest in our communities of the Klamath and Trinity. That money then recirculates three to five times, which amounts to \$3-5 million from between Junction City and Weitchep. Every decision you make has an impact. Don't give away the fishery, but please be as generous as you can, because the Klamath-Trinity Valley is now dependent upon fishing tourism. Also, there are vacant houses in Happy Camp and Orleans. Please give us serious consideration in your recommendations.

Fletcher: One thing we all have in common is the need for flow. I encourage you to make comments on that decision.

Duggan: I want to thank the tribal fisheries for their efforts in that area.

Welter: I'm Jim Welter from Brookings, Oregon. The lack of information to count fish comes up over and over

again. How can you expect models to function without data? It's a joke to allow fisheries without monitoring. Is the BRT the same in the northwest region as it is in the southwest region?

McInnis: Yes.

Welter: I was afraid of that.

Davis: I'm Carol Davis, a commercial fisher from Brookings, Oregon. The inriver percentage has historically been 12 percent. After all our procedures last year, they got 15 percent. Then after the season was underway, they tried to raise that. The Klamath has hurt communities up and down the Oregon Coast since 1984. Commercial fisheries no longer exist. Our seasons are small but important. To take our tiny quotas away because California has taken a bigger share of inriver is unfair. Today I heard there are other fisheries inriver besides chinook. They don't even get counted until August 6. They have hook and release. These are all things we don't have. We don't think taking us off the water has helped.

Bitts: Before 1992, the inriver allocation was 15 percent, which is what we thought historically. Then in 1992, they loaned ocean fisheries some fish.

Davis: The decision by NMFS that it is not warranted to list fish in the upper Klamath is wrong.

McInnis: Jeff Feldner did deliver the message from Oregon to the CFGC. They need to hear from those that are affected.

Bostwick: I commend you for coming. This is a sensitive issue. We too are crying. We too are going broke, all five counties. Everyone's perspective of what is historical is different. I'm going back to the 1950s.

Fletcher: Historical means different things to different people.

Duggan: The Klamath inriver fishery got 1,000 fish last year, but NMFS took them back.

McInnis: NMFS didn't take them back; we explained the impact to the CFGC, and they changed their decision.

Pierce: I'm Ronnie Pierce. I want to bring your attention to the Environmental Assessment (EA) on Klamath flows. All the alternatives in this EA provide inadequate flows for rearing and outmigration of fish. I brought this up to the TF and they made a motion to send a letter to the Secretary of the Interior, but that didn't pass. It is not political for you to act as federal advisors. It is not political to point out to the Secretary that he has a restoration program on one hand and an agency not complying with the goals of that restoration program on the other hand. You and the Secretary adopted a long range plan that no one ever looks at. The policy through that plan is to protect salmon and steelhead habitat from harmful effects of water and power projects in the Klamath Basin (Objective 2.E). That's your plan, the Secretary's policy. I ask you to make a motion to point that out.

McIsaac: The three alternatives do not provide adequate flow for fish? Does the document identify what adequate flow is?

Pierce: No, they use the modified Tenant Method, the best scientific method available in their opinion. The tribes

presented them scientific data of what flows should be. They decided to exclude that, saying that the fisheries couldn't be restored in one year and benefits would not offset the impacts on agriculture. Also, there is no reference in this document to recreational fisheries below the IGH, in Humboldt County, or in Del Norte County.

Kirk: Thank you, Pierce, for pointing this out to me. I sent a letter to the Bureau of Reclamation (BOR) asking why they are not looking at the negative effects on the Humboldt area, why there was such a short comment period, and why no public hearings were held in our area.

Bitts: I also thank Pierce. My organization will respond to this.

Belchik: I'm Mike Belchik. I was on the identification team for the EA. I pointed out long ago that there was nothing in there on impacts to other fisheries. They knew about it. There is exquisite detail on agricultural impacts, nothing on fishing. They said there were no data available, but the data are there for the asking. Please contact the Bureau.

Childs: I'm Jim Childs. Regarding the NMFS proposals for ESA listing, I urge marking of all hatchery fish and to secure funding for that. Restricting fishing is detrimental to the economy and society. This causes social problems in our area. Marking of all hatchery fish in California is estimated to cost \$2.2 million per year.

Welter: We are shut down to one fish per day and two per year. I don't see the inriver taking on that kind of hardship.

Davis-Marx: I'm Jennifer Davis-Marx from the Scott River Coordinated Resource Management Planning Group (CRMP). I see this kind of conflict happening in the ranching community too. All these issues touch our lives. It should be the agencies' mission to bring all the groups face to face; otherwise, everyone blames the government. The people can work it out. We need a meeting of the minds.

Agendum 18. Develop a range of public review options of the 1998 management season for presentation at the March PFMC meeting.

McIsaac: I asked Burner for the Rogue River numbers earlier.

Burner: See (Handout L). This was presented at the Salmon Informational Meeting in Santa Rosa. At the bottom there is an index of ocean abundance that gives you a trend for Rogue fall chinook abundance. It is 4,100 for 1998 versus 5,900 for 1997. The 1997 postseason estimate is an outlying point.

Bitts: How does this index relate to abundance?

Burner: It can only relate to itself; it is only a trend.

McIsaac: Let's open the floor to 1998 management.

Wilkinson: **I make a motion for seasonal management using the same percentages as last year: 15 percent of the non-tribal to inriver and 17 percent of the ocean portion of the non-tribal share to KMZ sport.**

Kirk: **I second.**

Bits: I would like some clarification on the 17 percent.

Wilkinson: What we have used in the past.

McIsaac: See the table in Pierce's document on page 21 (Handout D).

Wilkinson: I have a correction: **using previously agreed upon percentages and also the seasonal approach for inriver and recreation.**

Fletcher: I'm not comfortable with that. It's not developed yet.

Wilkinson: It would have to be worked out by the CDFG and the inriver folks.

McInnis: With regard to the seasonal concept, we had a buffer in the ocean to avoid exceeding the quota in the KMZ. A 15 percent conservation buffer was needed to reach our comfort level. Are you including that here?

Bits: Fletcher, can this motion be reworded to your satisfaction?

Fletcher: I can't buy into dropping a quota, especially in view of overages last year.

Wilkinson: This is early in the process, to explore the possibilities.

McCovey: In large years we can explore this, but this isn't the year to do it. We will continue to push for conservation. We caught nowhere near our quota last year. I'm not against it but just not this year.

Bostwick: I appreciate Wilkinson not telling us how to catch our fish. I won't support 15 percent until I know what the CFGC will do regarding our allocation.

Wilkinson: How else are we going to look at it?

Bostwick: I asked the Commission to look at it.

Bingham: Could you modify your motion to a range? Do you see this as a singular proposal?

Wilkinson: Yes, a singular proposal.

Kirk: We don't have information from the Commission. Boydston said we would know by our Millbrae meeting. I've seconded the motion, but we can't move forward without the information.

McCovey: There is no seasonal management now. There is no monitoring above Coon Creek. You would have to do that monitoring.

Wilkinson: I was considering as a future motion that no fisheries be allowed without monitoring.

Bostwick: Would the money spent on monitoring be worth it for what it would gain you?

Wilkinson: We can address that later in the agenda.

Bits: From the harvest rate model, even 33 percent won't give inriver many fish. They could still benefit from a seasonal approach.

BREAK

Wilkinson: **I ask to withdraw the motion with concurrence of the second.**

Kirk: **I concur.**

Wilkinson: **I make a motion that all Klamath fisheries be monitored.**

?: **Seconds .**

Bits: What if funds are not available?

McInnis: Is there a level of statistical reliability associated with this?

Wilkinson: The point is to provide some.

Bits: Should that be specified in the motion?

Wilkinson: No, I leave that to the entities involved.

Bostwick: What fisheries aren't monitored?

Wilkinson: The motion is that all fisheries be monitored.

Fletcher: You should rely on the agencies that prosecute those fisheries.

Bits: The State attempts to sample 20 percent of the harvest in ocean fisheries. The fishermen question that, but 20 percent is a good sample size and pretty robust.

McIsaac: Is the intent that if there is no monitoring, there will not be a fishery?

Wilkinson: That is the intent. In the upper river last year, there was an evisceration fishery between I-5 and the IGH. Hundreds of pounds of sexual product eggs were harvested. That is my concern.

Iverson: The Klamath Act says any recommendation made by the Council should reduce costs and not duplicate effort. I'm satisfied that Wilkinson's motion satisfies that.

Bostwick: Is this fishery you just mentioned an enforcement or a monitoring problem?

Wilkinson: It's not an enforcement problem because there's no monitoring.

Sinnen: That area is open once the hatchery quota is met; however, it's against the law to waste fish. There can be a ticket issued for taking the roe only.

McIsaac: I call for the question.

Motion Passes, Fletcher abstains.

Kirk: I move we allow the KMZ sport a 17 percent harvest as has been used in the past, and that one or more of the options the PFMC puts out to the public not contain a buffer for the 1998 fisheries.

Wilkinson: **I second.**

Kirk: We have been underfishing for the past seven years. We have a one-rod fishery with one fish in seven days. We have managed responsibly. We had a 20 percent buffer in 1996 that went to 15 percent in 1997. Last year we underfished by 45 percent. I think it is responsible for me to request this motion and allow the public to comment on it.

Bits: Is this as close as you want to come to meeting your Klamath share? Without the 15 percent buffer, you still would have caught only 30 percent of your Klamath share.

Kirk: We want any of our Klamath fish not caught to go to escapement.

McInnis: I support this motion to create a range. The Council and the public will have to realize we are trading days on the water for risk to escapement.

Fletcher: We'll abstain on this vote. Note with modification to the KOHM, this may change. I see the seven years of underfishing as a modeling problem.

McInnis: I agree with you. There are two buffers here and one is accidental.

McIsaac: This shows the KOHM is biased. Until the KOHM is fixed, this 15 percent is not needed. I have concern with the first part of the motion, the 17 percent allocation. If the CFGC recommends a higher allocation, than that puts the remaining Oregon allocation at risk.

Bingham: The PFMC will have to take the inriver allocation into account.

McCovey: The Hoopa Valley Tribe has only met their quota once. I urge this Council to be cautious. This is a low abundance year. This is a hard decision for me.

McIsaac: As this would be one of the options, I'm not fatally concerned.

Kirk: No, it would be in all of the options.

McInnis: The CFGC has adjusted their schedule to give us their policy in March, so I think this is premature.

McIsaac: Look at page 21 in Pierce's document (Handout D). It says that the 17 percent is 17 percent of the total non-tribal allocation.

Bitts: The inriver allocation comes off the top of the non-tribal share. That KMZ allocation is 17 percent of the ocean, not of the non-tribal. Unfortunately, that is an error in Pierce's document.

McIsaac: Let us take a short break to have the TAT give us some advice on the actual number.

BREAK

Kautsky: The KOHM runs show that the KMZ sport has 17 percent of what was left over after the 15 percent inriver allocation was removed. This indicates that Pierce's document is in error.

McIsaac: Call for the question.

Motion Passes. McInnis, McCovey, and Fletcher abstain.

Bostwick: **I make a motion that the inriver allocation be 33 percent of the non-tribal share.**

Bingham: The Commission's recommendation regarding any ocean allocation will be non-binding. Comments are essential. Mr. Treanor feels that we are not hearing from all the interests.

McInnis: It's a shame that we leave the Commission to take all the heat.

Wilkinson: I think it is in our mission to recommend to the PFMC, not the CFGC.

McInnis: I think it is. Could Iverson provide the Klamath Act?

Iverson: Yes.

McInnis: "The Council shall make recommendations....to the CFGC, and the ODFW, the PFMC, the BIA and the Hoopa Valley Business Council."

Wilkinson: I stand corrected.

Bingham: If we were all of one mind on a range, that would be okay.

Bostwick: **I make a motion to recommend to the CFGC either 15, 20, or 33 percent of the non-tribal share as an allocation to the inriver sport fishery.**

Iverson: Is this included for technical analysis or to the Commission?

Bostwick: To the Commission.

Bitts: This is a low year. The tribes are at an emergency level. Bostwick won't have a good fishery, the ocean won't have a good fishery, and we're all hurting. I won't vote to reduce the ocean share.

McIsaac: Shall we call for the question or would you like to withdraw your motion?

Bostwick: **I'll withdraw my motion.**

McIsaac: I set aside the Chair for a few moments to make a motion. **I make a motion for technical analysis of a seasonal approach to the freshwater sport fishery and the estuary fishery that results in a catch of 15 percent of the non-tribal share, including bag limit, and days open, presuming a review of catch rates. The goal is to maximize the number of days open.**

Wilkinson: **I second.**

Fletcher: I oppose this. I would rather have the CDFG do it, and we will have contact with them on that.

McIsaac: I propose to have our TAT group bring it to us before April.

McInnis: This is an enormous assignment to the TAT. The maker of the motion may want to wait until April, after the Commission decision, and make a recommendation to the CDFG. The final action of the Commission is scheduled for their June meeting.

McIsaac: This isn't a motion to take the quota off the table; it is an assignment to see what a seasonal approach would look like. We have to begin somewhere.

Kirk: The fishery needs to come up with that, not the TAT.

Fletcher: McIsaac's point holds merit. I would like to see data that come up with a ratio above and below Coon Creek. I would like to see more information on the Hoopa creel census. I would like to see the TAT work with CDFG to give us information on inriver harvest. Isn't that a step in that direction?

McIsaac: **I withdraw the motion.**

Wilkinson: **The second concurs.**

Agendum 12. Recognition of Jerry Barnes.

McIsaac: We have here a plaque that we would like to present to Jerry Barnes in recognition of his service to this Council. We appreciate your hard work. You have been a persistent member of our technical team, helping us out and answering our questions. Thank you Jerry.

Barnes: I'm glad that, like the Forest Service, the KFMC doesn't operate on results management. There's been a lot of mellowing over the years. I would like to recognize the other members of the historic Klamath Technical Group. Incipient carcasses like myself.

Kirk: I just found that Michael Morford recently passed away, and I appoint Barnes as an interim representative on the TAT for me.

Barnes: I appreciate Kirk's confidence and being able to be a part of the TAT without the responsibility of being the chairman.

Agendum 20. Stock recruitment with respect to the 35,000 spawner floor.

Kautsky: Dr. Michael Prager was the principal investigator of this project. The assignment was given some time ago in Weaverville (1996). The final report was sent back for some improvements. Dr. Prager was appointed the interim director for the NMFS Tiburon laboratory and couldn't do the improvements. He has since removed himself from that. He is planning to expand the analysis to reflect the current regime, plus different regimes with different harvest rates, including de minimus. There are five model components: 1) the quick harvest rate model, 2) natural mortality at 20 percent per year, 3) the maturity model from the cohort reconstruction, 4) recruitment (reevaluating the old and the new age composition materials), 5) an environmental variable such as rainfall in Eureka. Dr. Prager says this project is his highest priority and he will submit a draft in spring.

Bitts: Can you elaborate on the drop-off rate in the ocean fishery?

Kautsky: I cannot.

Agendum 19. The Shasta River issue.

Kautsky: We will give a quick overview of this issue, then Hillemeier will make a detailed presentation. The Shasta River Coordinated Resource Management Planning Group (CRMP) pointed out an anomaly that in 1995 age-3 fall chinook numbers were high, but in 1996 age-4's were low. The CRMP's hypothesis was that they were being differentially harvested. The TAT was trying to address the following questions: 1) What became of the remainder of the Brood Year (BY) from the Shasta River between the spawner run of 1995 and the spawner run of 1996, 2) Did the same thing happen elsewhere in the Klamath Basin, and 3) How often has this occurred? The TAT gave a memo to the Council in November. The memo pointed out the Shasta CRMP used some data that were based on surrogates that were not good. Alternate hypotheses suggested in the TAT's memo to the Council included: 1) thermal blockage in the main stem Klamath, 2) flushing flows in the Shasta River that caused early maturity due to rapid growth compared to previous cohorts, which increased the number of age-3s. We looked at CWT's, and the data showed that Shasta River fish run coincidentally with IGH fish. Then Dave Webb, from the Shasta CRMP, responded while taking issue with the TAT's response. The Council then felt that there were unanswered questions, such as the temperature data that only recently became available. At our last meeting in Rancho Cordova, the TAT developed an equation of the Shasta cohort survival and we are looking at one parameter at a time. We will give you a memo on this tomorrow morning.

McIssac: I have to leave at 5:00 p.m. to catch a plane.

McInnis: It is 5:00 p.m. now. Many people in the audience came to hear this agendum. Let's go on until 5:30 p.m.

[McIsaac departs]

Hillemeier: See (Handout M). We have developed an equation reflected in this flow chart. We are trying to explain the individual parameters one by one [Overheads shown appear in (Handout T)].

Bitts: Are you saying that a small ratio of '95 3's to '96 4's was observed, and you have identified nine possible

causes (parameters), but the CRMP insists it is one of these?

Hillemeier: Yes. First we looked at maturation rate. Looking at data from the Shasta racks, there is a strong relationship between age-2's versus adults in the years 1931- 1960. To me that indicates a strong age-3 component. After 1960, that totally falls apart. We don't know why. We used hatchery stocks as a surrogate for wild stocks. In the 1992 BY, the maturation rate of IGH fingerlings was 50 percent higher than the average of 1979-1992. This rate tends to be affected by environmental conditions. Maybe those conditions also effected Shasta River fish.

Bitts: It appears in this graph that 3 of the last 4 years have had a higher than average maturation rate.

Hillemeier: Yes. The other thing is that they had pulse flows in the Shasta; we don't know how that affected maturation.

McInnis: Was the pulse flow unique, or was it the first time?

Hillemeier: The first time. Another parameter is inriver harvest. Webb suggested that we look at the ratio of hatchery to naturals in the Yurok fishery. Our analysis of the run timing data from CWTs showed IGH and Shasta fish are caught together.

Bitts: Why are there no Trinity tags?

Hillemeier: We don't catch them until later. We only recovered 50 tags overall.

Sinnen: Do you have expansion factors?

Hillemeier: No. It seems Shasta run timing is similar to IGH. Next we looked at 1996 CWT recoveries in the Yurok fishery. Webb was interested in the ratio of hatchery to natural fish harvested. You have to be careful to look at the large days of harvest, because the weekly expansion factors give strange results at low numbers. On average harvest days, large changes in the ratio of hatchery/natural fish were apparent. On one day, August 30, about 3800 fish were harvested including an extra 400 wild fish over the average proportion, but that doesn't account for the BY 92 anomaly of about 11,000 missing age-4 fish.

Higgins: Are these expanded?

Hillemeier: Yes. Twenty percent of the run according to the megatable is of hatchery origin in 1986. The BY escapement rate, (the number of fish from that BY that escaped in all age classes), using IGH fingerlings as a surrogate, was 66%. In 1995 we were managing for the floor. A lot of fish returned from the 1992 BY. By this measure, we were not over-harvesting. There is no information that a single stock could be differentially harvested. In 1996 the ocean harvest rate was 16 percent on age-4's for Klamath stocks. That wouldn't account for the anomaly. For inriver mortality, we hypothesized that environmental conditions increased mortality. We recently received temperature information from the Karuk tribe. The 1995 average daily water temperature dropped below 70 degrees in August in 1995. In 1996 it did not drop below 70 degrees until September.

Belchik: The daily maximum is usually five degrees greater than the daily average.

Higgins: There's evidence that Shasta River fish will hold in the Klamath River until October. Their peak entry into the Shasta is in October.

Hillemeier: I thought it was in September.

Higgins: It is definitely later in drought years.

Hillemeier: To summarize: m3 could have been exceptionally high for the '92 BY. O4 is not a factor. R4 is greater than r3, but it was within the management goals, and r3 impacts were unusually small. Regarding p3 and p4, higher water temperature stressed age-4's in 1996 more than it did when they were age-3 in 1995. We can't point to any one factor to explain this anomaly.

Wallace: Did you look at increased straying effects with the IGH gates closed?

Hillemeier: No.

Wallace: We did measure bigger fish in the estuary. The size of young-of-the-year chinook in 1993, from the BY 1992, was significantly larger than other years.

McInnis: I am pleased with the methodical process the TAT has taken. Please comment if you won't be back tomorrow. There will be more opportunity for public comment tomorrow.

Added public comments.

Higgins: I commend the TAT. This is a sensitive issue. There has been a mistrust in farm country. To continue to get them to make efforts, there needs to be accountability. They're doing something hard here.

Belchik: They didn't do it in 1994-96.

McInnis: The CRMP was frustrated by our slow response; at least we are making a shot at it.

RECESS

8:00 a.m. February 27, 1998

RECONVENE

Members present:

Nat Bingham	Pacific Fisheries Management Council
Dave Bitts	California Commercial Salmon Fishing Industry
Virginia Bostwick	California Inriver Sport Fishing Community
L.B. Boydston	California Department of Fish and Game
Troy Fletcher	Non-Hoopla Indians: Klamath Conservation Area

Ron Iverson	Department of the Interior
Paul Kirk	California Offshore Recreational Fishing Industry
Pliny McCovey Sr.	Hoopa Valley Tribe
Rod McInnis	National Marine Fisheries Services
Don McIsaac	Oregon Department of Fish and Wildlife
Mike Orcutt	Hoopa Valley Tribe
Keith Wilkinson	Oregon Commercial Salmon Fishing Industry

Other speakers:

Scott Barrow	TAT, California Department of Fish and Game
Mike Belchik	TF Technical Work Group, Yurok Fisheries Department
Patrick Higgins	
Dave Hillemeier	TAT, Yurok Fisheries Department
George Kautsky	TAT, Hoopa Fisheries Department
Jim Welter	Salmon Advisory Subpanel, Oregon Recreational Fisher
Jim Craig	U.S. Fish and Wildlife Service
Ken King, Sr.	Trinidad Rancheria

Agendum 19. The Shasta River issue. (continued)

Hillemeier: It seems to be the addition of several cumulative effects more than a single factor that is causing this phenomenon.

McInnis: We have here a packet from Yurok Fisheries Department (Handout N).

Fletcher: I would now like to ask the TF to do an analysis. The TAT did a thorough review. We should write a letter asking the TF to address Shasta issues. Webb will continue to send letters every meeting (Handouts O and P). There were errors in his latest letter. I don't want to waste TAT and my staff time on frivolous accusations. I am still upset about the Shasta CRMP's accusation that we were withholding data.

Bingham: This exercise we've gone through has been valuable, a gain for all. It was a good job by Hillemeier. The landowners are pointing the fingers away from themselves. I appreciate the work by Fletcher's staff and the TAT, and I'm resolved to take the issue on to the TF.

Fletcher: Webb wants to see the same exercise done for ocean fish (Handout P). He needs to hire his own biological staff. Harvest did show up as one factor.

Iverson: Kautsky, will we receive a paper copy of this presentation that Hillemeier made?

Kautsky: You'll be getting that within the next hour or two.

Bits: I'm impressed with the job and the rigorousness of Hillemeier and the TAT. Has the Shasta CRMP acknowledged looking at the parent stock? Have they recognized that this is coming from a small parent stock?

Fletcher: I am disappointed that Webb spent time on this that he should have spent on doing his job.

McInnis: I want to seek Kautsky's report before taking action on Fletcher's letter.

Kautsky: You'll have it at 9:45 a.m.

Iverson: Regarding taking action on the report from the TAT, I want a chance to look at it and take action in March.

Fletcher: You can leaf through it. I don't want to have this go on to another meeting.

Bitts: I agree with Fletcher.

Wilkinson: I agree with Iverson.

Iverson: I'm not endorsing taking on new questions. Does this report have the support of the full technical team?

Kautsky: We had a quorum of the TAT yesterday. We are substantively all on the same page.

Fletcher: I won't consent to delay any longer. I want to go on whether the full team reviewed it or not.

Kautsky: We did work on it at our meeting in Rancho Cordova; we developed the equation at that meeting with the full team.

McInnis: Kautsky, are you providing the full report that Hillemeier gave?

Kautsky: It is a memo with four to five pages of text and figures.

McInnis: Let's proceed after public comment.

Agendum 21. Public comment.

Welter: The process comes to putting natural events into the KOHM.

Agendum 19. The Shasta River issue (continued).

Wilkinson: I have no quarrel with the TAT product, but it needs time to be reviewed.

Fletcher: Do we have to okay every TAT report?

McInnis: Iverson, you are the keeper of records; what is your opinion of this?

Iverson: I agree that technical information goes out without a vote of the KFMC members, but there have been some technical reports that have been extensively discussed and voted on. I do agree with Fletcher.

McInnis: We need to have a document in hand before we can approve it.

Orcutt: If we don't do anything, then the report is accepted.

McInnis: We will proceed once we have the document in hand.

Agendum 22. Report on Klamath River flows/temperature.

Fletcher: Belchik and the tribes have been working together on flow issues. We need to draft letters to the BOR (Handout Q).

Belchik: In 1995, I presented reports on minimum flows for tribal trust. The BOR does an EA for annual plans for the Klamath project. They came up with a range of alternatives. Every species and ecosystem are affected. There have been fish kills in the middle Klamath and mainstem. I was invited to take part on the identification team for the EA. The National Environmental Policy Act (NEPA) requires a broad range of alternatives. They only came up with three very similar alternatives. The Department of the Interior (DOI) and BOR agreed that the best available science was used. I called meetings with the FWS, the DOI, and the stakeholders. None of what we came up with is included in this EA. I don't know where the flows came from in here. There are flaws in the impact assessment. I pointed out to the identification team that no commercial fisheries are mentioned. It was acknowledged, but did not appear in the draft. It says "no data available", but the data are available. Pierce made the point that the Council not take sides, but we can point out the inconsistencies between the two arms of DOI. The spring run to the IGH is extinct. The KMP steelhead is being proposed for listing. It's the opinion of Klamath scientists that water management is a big part of the problem, but not the entire problem.

McInnis: Is there a public comment period?

Belchik: The public comment period ends Friday. It was a 30-day period. On February 4, they issued the public review draft. There was a public meeting in Brookings that was not publicized, and only one person showed up.

Bits: Yesterday was the first I heard about this. When we met with BOR, they said they wouldn't take more water. Now, in a good water year, we're still at the Federal Energy Regulatory Commission minimum.

Belchik: Flows depend more on summer weather than precipitation. There is little storage in upper Klamath Lake. It depends more on the snowpack.

Bits: So in any year, there is only enough for agriculture and not for fish?

Belchik: Except for a year with very high snowpack. There's a lack of good spring migration flows.

Wilkinson: I'm in the Hatfield Working Group, in which there has been significant progress made. The group concluded that increasing storage by 20,000 acre-feet was needed. Agency Ranch will hold about 7,000 acre-feet for water storage. It was drained. Now how do we get back that storage of 17-25,000 acre-feet? There has been discussion of sump rotation in lower Tule Lake.

Fletcher: Those are good efforts. It will take effort from the TF and interested parties to get funding. In the government's obligation to divide up water, according to the solicitor's opinion, the first priority is fish, then agriculture, and then refuges. It is a legal obligation.

Belchik: Not just quantity, but quality, is important. In Agency Lake, nutrient-loading is a concern. Agency Lake was seasonally used for grazing, but it will get better over time as far as water quality.

Wilkinson: I can't vote on this because of the Adjudication.

Fletcher: I want to make a motion to point out the difference between DOI's charge and BOR's environmental assessment.

Bitts: It would be more constructive to offer a way out.

Fletcher: My motion is to send a letter to the Secretary that states the following: that all instream flow alternatives in the EA regarding the 1998 operations plan for the Klamath Project are identified in the EA as being inadequate to meet the needs of fish. The EA and proposed 1998 operations plan is in conflict with the mandates of the Klamath Act.

Kirk: Second.

Bingham: Pacific Coast Federation of Fisherman's Associations (PCFFA) voted against the motion at the last TF meeting, but we may revisit our position at our board of directors meeting.

Iverson: This is not directly related to our mission. I might be said that it is easy to take a pot shot at the black hats.

Fletcher: If this group can't speak up for adequate flows for fish, who can?

Bitts: We don't need to turn a blind eye to factors affecting harvest.

Orcutt: We supported the TF motion. The EA on the Klamath doesn't mention harvest. The Environmental Impact Statement (EIS) on the Trinity does.

McInnis: Call for the question.

Motion passes. Iverson and Wilkinson abstain.

McInnis: Will staff prepare a letter prior to the next meeting?

Fletcher: Belchik can help with that.

Belchik: The 1998 water plan is very important. The EIS is a bigger issue. Everyone must get involved.

Agendum 23. Klamath Task Force update and budget process status.

Bingham: I was in Washington during the TF meeting, asking members of Congress for add-on funding for the Klamath Act. This needs a coordinated effort.

Wilkinson: We have a constant problem with the budget. Harvest monitoring needs to be funded by outside agencies; that leaves a gap. Jim Craig is here to identify monitoring the FWS does.

Craig: Dr. Hankin was right. There is a need for marking at the hatcheries. Natural juvenile numbers are down.

It could have been from the 1997 floods destroying fry and eggs (see page 4 of (Handout R)). As far as steelhead, there was a fish kill last summer from Happy Camp to Weitchpec. All species were killed. There were high densities of salmonids in cool water refugia. Peak temperatures were 85 degrees at Big Bar. There were extreme diurnal dissolved oxygen (DO) fluctuations, as low as 3.1 at night. None of these problems showed up on the Trinity. We urged the California Regional Water Quality Control Board to change their practice of only measuring DO in the day. Columnaris and other stress related diseases increased. Presmolt releases are shown in (Figure 5). Faster migration happens with higher flow, see (Figure 6). Here is a handout on data gaps and recommended future studies (Handout S).

Bitts: What about migration and size? Any work on that?

Craig: Not yet. We have enough data to start. We will have a report out soon.

Fletcher: It is important to get data on pulse flows. If we flush fish, we need to understand where we are sending them.

Orcutt: It is not necessary to direct the TAT to participate in monitoring assessment.

Bingham: At the Five Chairs meeting, McAllister mentioned projects that will not be funded for this year. Let's write a letter at least.

McInnis: Let's draft a letter for consideration on March 8.

Bingham: I will volunteer to bring a letter back in March.

Bitts: I applaud Craig's work and his shop. They do it on a shoestring.

McInnis: Would you give a report on the Six Chairs meeting, Fletcher?

Fletcher: The theme was a lack of funding. Each chair gave an update. There was a basin wide agenda and data.

Bingham: We asked the CFGC to join.

Orcutt: As far as funding under the Trinity River Restoration Program, there is a dilemma. July 1 is the beginning of the new fiscal year for the State. Without the reauthorization of the Trinity Program, there won't be funding for State monitoring programs, and there will be a data gap. The Trinity River TF has to go ahead with reauthorization. This is a short session of Congress. Roger Patterson says it won't be possible to get reauthorization by July. Funding for the Willow Creek Weir operation is in jeopardy.

McInnis: Let's put funding matters on our March meeting agenda. We have gotten our report on the Shasta from the TAT (Handout T). Let's take a 15-minute break to review it.

Agendum 19. (continued)

McInnis: I make a motion that we forward this letter to the TF.

Bingham: I would like to send this TAT report to Webb with a cover letter.

McInnis: Call for the question.

Motion passes. Iverson abstains.

Agendum 24. Report on mid-program review of Task Force.

Fletcher: The mid-program review for the TF is in progress. I have little information, because it is supposed to be impartial.

Wilkinson: Fletcher and I came to agreement that a KFMC review, which we are to discuss under Agendum 25, is included in the ongoing review of the TF.

McInnis: Is it a review of the TF or of the implementation of the Klamath Act?

Fletcher: The Act.

McInnis: What is the final date?

Wilkinson: September.

Fletcher: I need to contact Bill Kier and Andrea Tuttle to say they need to include the KFMC/TF interactions in their review. I struck out Task 9.1 and 9.2 in the RFP, because I felt they had biases. I didn't mean to entirely exclude the KFMC.

McInnis: No action is necessary on this now. I defer Agendum 25 until we see a TF report.

Agendum 27. Planning of agenda for March and April meetings.

McInnis: For our March meeting, we'll meet at 1:00 p.m. on March 8. We'll recess the evening of March 8 and reconvene later in the week. We have here a very brief draft agenda, basically to develop a range of options. I would like to add to the agenda a letter that Bingham is drafting on the budget.

Bostwick: I would like to ask for documents from NMFS on the listing of stocks and recovery plans.

McInnis: Recovery plans will not be available until after the listing. We'll bring other documents.

Fletcher: I would like a copy of the steelhead plan developed by the State and a budget update from Boydston. He mentioned \$1.4 billion from the director.

Bingham: The steelhead plan is on the street. Boydston referred to the Memorandum of Agreement (MOA) between the State and NFMS, which is still not signed.

McInnis: I hope it will be by then. Then it will be a public document.

Orcutt: Don't forget we had some edits to the minutes. We never did send a letter to the CDFG regarding

hatchery marking. I would like that addressed at our next meeting.

Kirk: I ask that we start both our March and April meetings at 2:00 p.m. or 3:00 p.m. rather than at 1:00 p.m.

Agendum 26. Assignments to TAT and other work assignments.

Kirk: The potential for a 24-inch size limit was mentioned in public comment. Also, is it appropriate to ask that a new base period be used in the KOHM: from 1986 to the present, rather than from 1986-1990?

McInnis: We can ask the TAT how hard that would be. I don't think the PFMC will go for a different base period.

Bitts: Boydston proposed using the 1996 KOHM without the changes made in a rapid fashion in 1997. We need to use the best available information. I want guidance from the TAT on how to do that without starting a free-for-all.

McInnis: Would that address it, Kirk?

Kirk: Yes. What are we going to use in San Francisco?

Fletcher: There were problems with the 1996 KOHM with the tribal allocation.

McInnis: The TAT won't officially convene before our April meeting in Millbrae. What are the top priorities?

Bitts: The Coos Bay adjustment; is it reasonable to use in 1998?

McInnis: Kautsky, what does your list look like? What is practical?

Kautsky: I hear detailed questions regarding the KOHM, but what do you want? We can't implement the KOHM any way we want. We must do what the Salmon Technical Team (STT) and the PFMC choose to do. We can explain that for you and recommend these things to the PFMC.

McInnis: That sounds realistic.

Kautsky: Regarding the CFGC decision, we can give you a run of the harvest rate model reflecting that.

McInnis: I will call you after the CFGC meeting in San Diego to tell you the results.

Barrow: We will know what the STT is doing on the KOHM by way of Dixon.

Kautsky: Boydston mentioned putting length information into the harvest rate model and looking into the jack question and updated numbers.

McInnis: Please bring that list back to us in March.

Kirk: Who on the TAT will be there in March?

Kautsky: My experience is that the agency people, Dixon and Barrow, will be there, but they are often busy with other assignments. I would like to call a TAT meeting so that the members can all travel there, if Iverson says that's okay. My comfort level will be increased if non-agency members, like Michael Maahs and Barnes, could be there.

McInnis: Does the Council pay for travel for the TAT?

Iverson: We have paid travel from our field station budget for those who don't have an agency to cover travel. We have asked that we only pay Klamath Council related travel. In this case, we would limit it to the time used for TAT business, rather than through the end of the PFMC meeting.

Orcutt: Regarding marking strategy at the hatcheries, I ask that the issues of enumeration and representative marking be addressed, and how it interplays with the management.

McInnis: That ties in with Boydston's report of his progress on the hatchery.

Orcutt: I also have longer term issues for later on: lumping spring and fall chinook in the same ESU and management objectives.

Agendum 28. Approval of minutes.

Orcutt: I have three edits. I have the pages marked.

Bostwick: I have an addition to my testimony.

Wilkinson: We received these minutes with a note from staff requesting edits by February 13. Are we not responding by the requested date? There was more than adequate time.

Bitts: I agree. We got these a month ago. I failed to review them and it's my problem. We have been getting excellent minutes from staff lately. I don't want to hold the process hostage.

Orcutt: I got them late because I'm an alternate. I didn't receive them until two days ago.

Wilkinson: We're spending over four dollars apiece to send these out by certified mail to avoid the problem of not getting them. In fairness, we need to stick to the process.

McInnis: We can't amend the minutes after approval.

Wilkinson: **I move to approve the minutes as submitted.**

Bitts: **I second.**

Kirk: If Orcutt and Bostwick bring up reasonable changes, have their edits put in writing, and we'll put this first on the March agenda. We can distribute only those changes at the meeting.

McInnis: The edits would be put in writing and distributed? There is a motion. If the motion does not pass, then

this goes to the next meeting.

Iverson: If we got those comments in writing today, it would be convenient for staff to do what Kirk is suggesting.

Wilkinson: **I withdraw the motion.**

Bits: **Second approves.**

Added Agendum. Public comment.

Higgins: Regarding universal marking, a recent issue of the journal "Fisheries" said there was a new technology for marking and it would be used in 1998. It marks two fish per second.

Bingham: Don't hold your breath on that one.

Fletcher: We have not talked about mass marking.

Welter: You've got to move minutes process forward.

King: I'm Ken King Sr. from the Trinidad Rancheria. We have a letter requesting an allocation for us in the future (Handout U). This is a fine board meeting. You have done a very good job.

McInnis: Please provide that letter to staff and to the PFMC.

McInnis: Meeting adjourned.

ADJOURN