

Klamath Fishery Management Council
Telephone Conference
May 23, 1994

1:40 pm Meeting convened by Chair McIsaac with a quorum of members present (Attachment 1).

1. Roll call: speakers stated that they understood that they were being recorded.
2. Review and approve agenda: Masten requested that an additional agenda item be added to consider sending a letter to the Bureau of Reclamation (BR) regarding the current Klamath River water situation and the reduced flows below Iron Gate Dam. McIsaac said that this item will be added to the agenda (Attachment 2) after agenda item #7.
3. Approve minutes: Action postponed until next meeting.
4. Report of the Technical Advisory Team George Kautsky reported that the Technical Advisory Team (TAT) met on April 27 to discuss *de minimis* impact rates of 0%, 5% and 10%, the cap, changing the floor to be more flexible (than the currently used numeric value), and reviewing the earlier report on simulation monitoring. The TAT didn't model the sensitivity of sub-basin stocks to spawner deficit accounting (SDA), as this can't be modeled. The team put together a Clarification of Spawner Deficit Accounting (Attachment 3) -- (following Pacific Fisheries Management Council's (PFMC) Schedule 7 (Attachment 4)). For a theoretical application of SDA to the 1994 fishing season, Table One (of Attachment 3) shows the percent of the SDA target attained at three harvest rates assuming a 50/50 tribal/non-tribal share. Guidance that we receive today from the Council will be taken into consideration by the TAT at the June 2-3 meeting in Fort Bragg. PFMC staff (Coon and Seger) will also be at that meeting to help conduct a record search for all documents on SDA. We aim to have our assignments completed by the second week of June.

John Coon said that the Pacific Council will use the information from the TAT meeting as input for developing a draft for presentation to the PFMC at their meeting during the first week of August. Then the PFMC will decide if SDA should go out for public hearings. At the meeting during the last week of October, implementation will be decided.

Q: Will the socio-economic analysis be included in the work that is done by the TAT in June? We will need it to prepare for the presentation to the PFMC in August (Baracco).

A: Yes (Coon).

Q: Would the PFMC still consider this proposal if the Klamath Fisheries Management Council doesn't reach a consensus recommendation on it (McIsaac)?

A: The PFMC could consider this proposal independently of the KFMC recommendation. PFMC wanted the Klamath Council to clarify some aspects of SDA. The May '94 TAT report provides much of that (Boley).

Questions on the Technical Team's document (Attachment 3) -- addressed to Kautsky

Q: Has a specific proposal (following PFMC guidelines) been put together for the *de minimis* impact (McIsaac)?

A: As shown in the third paragraph of page 1, two variants of the *de minimis* concept were discussed. Boley asked us to model the 5% and 10% harvest rates. The TAT decided that the best way to display effects of *de minimis* might be to look at applying 5% and 10% *de minimis* overall impact rates to the 1994 season. We are open to other approaches you may suggest.

Q: Which cap was used in this analysis (McIsaac)?

A: The TAT clarification was put together using both the 50,000 cap (from Hoopa Tribe) and the 43,000 cap (from CDFG).

[Boydston arrived and stated that he understood he was being recorded.]

Q: The last paragraph on page three has a sentence that reads, "While overall benefits to harvest yield have not been demonstrated, SDA offers a method to reduce the risk of consecutive years of the failure to meet escapement objectives." Is this a reference to the prior Kope analysis for the long term iteration?

A: Yes. Under that analysis, depending on what combination of stock recruit parameters we select, you can come up with varied results in terms of long term yield to the fisheries (ranges from 2% increase in overall yield to as much as 17% decrease in yield). It is not conclusively demonstrated through modeling which way the yield would change.

Q: In the second paragraph of page two, what did the TAT mean by, "These actions, while lessening the probability that SDA would be invoked, do not provide a substitute for the post season adjustment mechanism of SDA" ?

A: The Scientific and Statistical Committee and Salmon Technical Team concluded in September '93 that the benefits of SDA could be achieved through other routes (e.g. raising floor), but SDA is unique because it is the only alternative that allows for post-season adjustment.

Q: Would floor elevation be a long term correction -- as opposed to a yearly correction?

A: Yes, this would be a fixed feature in management. It would not be invoked on an "as needed" basis.

Q: At your next TAT meeting could you look at corresponding geographic management lines, in the ocean, that would be equivalent to 5% and 10% impacts (Boley)?

A: Some determination could be made (as shown in '94), but it won't be simple (since other constraints are part of the equation). Absent constraints it could be determined more easily (Baracco).

Q: Let's assume Klamath impacts are equal north and south of the Klamath Management Zone (KMZ). Can you model how far south you have to push the no fishing line in order to achieve a 5% or 10% harvest rate?

A: In regard to ocean management areas, the technical team needs a clarification of all the different parameters that would go into such a modelling effort (ie, magnitude of recreational harvest (particularly in the KMZ)) in order to give a more realistic assessment of where the troll fishery might be allowed to operate at these extremely low harvest levels (Baracco).

If '92 was a 4% year, it could be used for getting an idea of what a 5% season looks like (Masten).

Q: Would 10% be the total of ocean and in-river?

A: Yes. We asked Boley about this combined harvest rate at the last meeting. It is very hard to calculate this precisely. It is estimated by looking at what the escapement would have been and mixing harvest rates until a 5% decrease in escapement is achieved. The 10% overall ocean and in-river impact rate decrease would be calculated in the same way.

Boley: A better way might be to look at the previous year's sharing rates (e.g. '92, '94) to see what happened in the past.

McIsaac: Before we get into the specific technical assignments, I'd like to finish up with questions pertinent to their current document. Then I'll review the previous motions passed by this Council in regards to SDA. I'd also like to ask the Hoopas if they have a proposal for us to consider. The PFMC asked us for guidance on SDA, but they can consider SDA whether or not the Klamath Council favors it. We need a single proposal to focus our energies on.

Q: Is the intention to re-do the analysis that was done previously by Robert Kope? Kope had stated that his analysis was general, so if the proposal for SDA is specific, will another analysis need to be done?

A: I didn't anticipate doing any more modeling of the proposal. The issues that were not addressed by the model (e.g. genetic consequences, impact on sub-basin stocks) are beyond the scope of the model that I used originally. I don't see a way to approach it (Kope).

Q: Is the question of a cap on this a proposal a pertinent factor that should be incorporated into the modeling (McIsaac)?

A: Yes (Kope).

Q: Would a *de minimis* allowance change the conclusions of your analysis?

A: Yes. Although, the initial runs did consider *de minimis* impacts.

Q: How did you consider *de minimis* tribal harvests when you analyzed SDA (Masten)?

A: We always allowed ceremonial tribal harvest, even at very low stock abundance with zero ocean harvest (Kope).

Q: Sue, if SDA goes forward as an option for the PFMC, would the tribes agree to SDA or would you insist on getting your numeric minimum needs (excluding ceremonial) figure (Bostwick)?

A: In years of low stock abundance, the tribal fishery would take priority. In '86 we set minimum needs at 18,500 fish. Since then, in cases of extreme urgency, we have asked for 12,000 fish. Other options have been considered on a case-by-case basis (Masten).

o The Hoopa Tribe is willing to abide by SDA (McCovey).

o At our March meeting, we decided to send SDA forward for technical analysis (the original proposal plus 4 add-ons). Additional SDA issues: 1) We (Bitts and McIsaac) also questioned the validity of the 35,000 fish floor. 2) Should the responsible party pay the SDA bill? 3) What would the tribal subsistence demand be at low stock abundance? The PFMC is still looking for guidance from us on these issues. Hoopa Tribe, please give us an SDA recommendation that addresses these issues (McIsaac).

[Walters joined telephone conference and stated that he understood he was being recorded.]

McCovey/Orcutt: 1) Our SDA proposal is: 43,000-50,000 fish cap range and 5% *de minimis* harvest rate. We don't know how to deal with sub-basin stocks. The floor needs to be revisited because I don't think it is high enough, 2) Scott Boley asked, when will the negotiation on SDA take place? We have presented our SDA proposal, yet the issues are still being skirted. The people who object to SDA aren't participating in this telephone conference today.

Walters: I feel that the problem is the additional red tape and rhetoric that we have to get through. Ocean recreational fishermen are fishing 1/10 of 1% of what is available to them. They are limited to using a single barbless hook in order to save fish for spawning -- yet we have gill nets in the river, and major problems with the habitat in the river. People involved with the salmon industry are completely out of business, so we feel that this proposal is entirely unrealistic. The problem is the degradation of the river. I can't go along with the proposal because I don't see that we've made any progress in either hatchery or wild populations increasing. I can't support

this policy. Something has to be done, but I don't see enough data to justify raising the floor and not enough data for accurate stock predictions.

Orcutt: In September, we had objections from Bitts on this proposal. We thought he was the only one, but now we are learning that Walters objects too.

Q: Is your proposal for 5% impact in both ocean and river fisheries (McIsaac)?

A: Yes (McCovey).

Boydston: At the April meeting, Dr. Stauffer of the Soil Conservation Service (SSC) brought up the point that the SDA proposal is not complete.

** We need to see a fleshed out proposal that includes objectives and an evaluation of the alternatives (including some of the recently brought up ideas such as preseason projections of river flows) (Boydston).

Q: Is the Hoopa Tribe planning on putting this proposal (and these other ideas) into the format of an amendment package that we could present to the Pacific Council (Boydston)?

A: Since you came in late, you missed our description of how we are planning to work within the PFMC process to provide a complete package to the Pacific Council by the August meeting (Orcutt).

Boydston: I had hoped for more than what we have been given.

Masten: The Yurok Tribe agrees with you L.B. We were also expecting to see the full amendment package prior to this telephone conference. Without seeing it in writing, I am not prepared to approve it for forwarding to the PFMC. I am disappointed.

Orcutt: The TAT reviewed the technical aspects of the last Council meeting, and the opportunity still exists to get social/political issues included in the package. You could have provided those, by now.

Masten: It is your proposal and your responsibility to lay it out clearly.

Boley: From a PFMC perspective, the Hoopa Tribe would not do an analysis of all the options proposed -- just their own proposal (giving specifics on the cap used and the *de minimis* impact considered).

Boydston: It is the responsibility of the project sponsor to analyze other options and show why they were rejected. A letter from Boyd Gibbons to the Klamath Council outlined our concerns with SDA. In that letter, we requested a *de minimis* 8% harvest rate for age four fish (ocean impact in all years). We are disappointed that this wasn't put in the proposal.

McIsaac: I understood that the Hoopa's considered the 8% harvest rate, but decided to put a 5% harvest rate in the proposal instead. They also modified the cap to have a range from 43,500 to 50,000. It might be easier for us to

consider this proposal if we could see it in writing in front of us. I'll ask John Coon to comment on this process:

Q: John, is it critical for the Pacific Council to see written documentation from the Klamath Council?

A: Coon: Yes, it would be a very good idea to have a clarified proposal from the Hoopa Tribe. With regard to the rest of the analysis, we have a lot of what we need, although we will need clarification on the cap range because it could change the outcome. We would need help from Kope and TAT to re-model the outcome. We also need more justification for why some issues have not been addressed in the modelling -- like sub-population genetics.

McCovey: I think we can put this proposal together easily. We have a good grasp on the alternatives that would be included too.

Coon: Hoopa's have produced 5% *de minimis* harvest rate, while the state wants us to look at 8%. Both of these are good directions for us to start from for the technical analysis.

McIsaac: It looks like there are two ways that the Klamath Council could head right now: 1) Consider sending the Hoopa proposal forward to the PFMC (approve a motion today), or 2) The TAT could meet to work on questions and model alternatives while the Hoopa Tribe fleshes out the proposal (defer motion until August meeting). After we see the fleshed out proposal, we could decide if we want to defer the proposal until August. From what I hear from the Council, I doubt that we would pass a motion at this time. Can the Council think of any other alternatives?

Masten: We could either send the proposal forward this year or look at the results of this year's new management as another option. The new conservative management that we are following (as recommended by the SAS) might prove worthwhile in that we are getting closer to what we aim to do.

McIsaac: I agree that would be a third option for us.

6. Public comment

Port of Brookings: none (Crabtree not on the telephone conference anymore).

National Marine Fisheries Service (NMFS), Tiburon Lab: none (Kope).

Coastal California Fishery Resource Office:

Andy Colonna:

Q: How can the floor work with SDA if the definition of the floor is moving all the time?

A: McCovey: We are dealing with a 35,000 fish floor right now. Opinions exist to change the floor, but so far they are just opinions.

Q: What effect does the recent decision made by Governor Wilson (regarding the four northern counties in California being declared a disaster area) have on this program?

A: Boydstun: In response to your second question, we have not received any definite direction on how the relief/compensation package is going to come about for this year. SDA could go forward and if it does, then there are two possibilities: 1) more of a disaster, or 2) less of a disaster (if more fish results in more production). In '92 we saw that the floor was nothing other than a speed bump because all the entities (DOC, etc) recommended regulations that violated the floor. It is already established that the fisheries are going to occur to some degree. The SDA package is to legitimize up-front what the rules will be rather than to wait to see what Washington D.C. decides.

Klamath River Fishery Resource Office: no comments.

7. Action: Decision on further process for the spawner deficit accounting proposal.

Boley: There is not much point in putting out a motion for consideration until after further work is done by the TAT.

McIsaac: Here are the directions I see us going now:

** Could the Hoopa's provide a refined proposal to us before the August PFMC meeting? We could get together to review this prior to the PFMC meeting.

** The TAT needs to address: 1) Is the floor valid in a drought year when it appears prior to the spawning season that habitat will be shrunken compared to normal conditions? (Bostwick's question), 2) Kope's analysis of 5% *de minimis* being remodeled for all fisheries as opposed to 10% impact for tribal fisheries, 3) cap of 43,000 to 50,000, 4) 8% ocean fishery impacts (CDFG proposal -- Baracco will provide details at the TAT meeting) including how they compare to geographical boundaries, and 5) hind cast having SDA in effect for the last five years using 46,500 as the midpoint cap and both 5% and 8% *de minimis* for all fisheries.

Masten: The Yurok Tribe will provide the language to the TAT that we want added to the SDA proposal (e.g. dealing with the priority of tribal fisheries in low stock abundance year and the emergency level harvest). The Tribe is also entitled to a minimum fishery for which the impact rates haven't been clarified as yet.

Kautsky: (Speaking for Barnes): Let's be careful to assign only technical, not policy, issues to the Technical Team. We will need specific direction on where and how to put this language in.

Masten: Page one of the Technical Team's document refers to *de minimis*, we want to make sure that the Yurok component is included in the proposal too. We will provide this language to the Technical Team.

McIsaac: If you provide the Technical Team with the language, I won't expect them to do anything with it. If you would like them to model something, then we need to talk about it.

Masten: No, we do not want anything modeled.

McIsaac: Then I'll ask the Technical Team to attach whatever you provide them to their report.

Boley: If Sue is referring to deviating from 50/50 harvest sharing, that gets into policy. Sue, is it your intent to help define *de minimis*?

Masten: In low abundance years, tribal fisheries take priority over all others. We want this included in the report to PFMC. It will go along with the *de minimis* discussion.

** Next meeting agenda items: Reports from the TAT on the above assignments (including validity of 35,000 fish floor when it appears that habitat will be shrunken due to the drought). We will still need to work out tribal and river sport allocations based on the '94 allocation.

Q: What if, in the year after SDA is invoked, the projections are for high stock abundance? When do you go back to harvest rate management?

A: McIsaac: If the forecast abundance is higher than the escapement target, then you are back to harvest rate management.

Boley: I would ask the TAT to tell us how the 5, 8, and 10% *de minimis* harvests would equate to geographic boundaries in ocean fishing constraints.

Jim Seger: I'll need the team's help to get a broader assessment of the economic impact. First, tell us what different levels of Klamath chinook abundance would mean for fishery regulation in distant cells -- Cape Falcon, etc. Second, in order to determine how much genetic impact SDA will have, I'll need to know how many times escapement will get down to low levels (1,000, 5,000, or 10,000). We need to get a better feel for how much potential genetic diversity risk we are dealing with.

Kope: Yes, we could help you with that. The first part of your question looks like it is really similar to Boley's request.

[Boley departed the meeting at this point.]

Coon: Since this Council is considering raising the spawning escapement floor, then maybe we should model in a higher floor for comparative purposes in terms of cost.

Baracco: When we hind cast for the last 5 years, we are limited by the results of year one influencing the results of year 2, etc. The years are not independent. The TAT is capable of analyzing for individual years, but not for a sequence of years. This would not be true hind casting.

McIsaac: Right, we will have to give the team guidelines of five hypothetical years -- year one to five will have the identical preseason abundances as the last five years. In years where harvest rate management did apply, the rate of management error that occurred could be applied. Maybe the TAT could try a creative reconstruction, or looking at recent year abundance and recent year rate of management error. Let's assume: 1) 50/50 sharing and 2) trying to manage for the floor.

Kautsky: If the floor was not met, then are we constrained by the *de minimis* impact?

McIsaac: Yes. Let's pick whatever *de minimis* impact Allen brings to the TAT meeting. I will try to be available by phone for TAT clarification of these assignments during the meeting. Are there any other Technical Team assignments?

Boydston: I want feedback from the team on how harvest rate management works under the Solicitor's opinion in high abundance years. What happens if we get over 35,000 fish? How does harvest rate management proceed from then on?

McIsaac: Perhaps the team could prepare a short paper on the problems that could arise and what the guidelines could be for future management (lower priority technical team assignment).

Boydston: The fixed rates were previously set between ocean and river and escapement just fell out. Now, I'm not sure how we manage for escapement. Perhaps the TAT could give us a write up on this.

McIsaac: George, please consider these previous discussions as TAT assignments.

Kautsky: I've written these down (Attachment #5) for consideration at the TAT meeting on June 2-3 in Fort Bragg.

New agenda item: Yurok Tribe's proposal to submit a letter to Bureau of Reclamation regarding minimum flows in the Klamath River below Iron Gate Dam

Troy Fletcher: The Yurok Tribe is proposing that the Klamath Council submit a letter to the U. S. Bureau of Reclamation (BR) expressing our concern with not meeting the minimum flows in the Klamath River below Iron Gate Dam. This would be similar to what we did in '92.

Masten: The process would be that we send the letter to Klamath River Fisheries Resource Office (KRFRO), who could then send it to all Council members requesting comments back within a week.

Orcutt: There are two parts to the restoration equation: flow management and harvest management. We just better make sure that our own house is in order before we tell them to change their ways (including an answer to the letter that PFMC received from the Trinity Task Force) (Attachment 6).

Masten: We need to separate these two issues. Sending this proposed letter would be consistent with past Council actions.

Orcutt: But, since this letter addresses one part of the restoration equation (flow management) and the Trinity Task Force just sent out a letter calling for closer coordination on the other aspect of restoration (harvest management), we had better clarify what we want. The call for coordination in their letter means that they feel that there is one issue not two.

Boydston: The letter that we put together should only encourage getting better flows for fish purposes this year. The Department will support and help put this letter together.

** Action (McIsaac): Yurok Tribe (Fletcher) will coordinate with CDFG (Rode) to get letter to KRFRO next week. KRFRO will send to members, members will have a week to respond with comments. If we don't get consensus, we won't send. KRFRO will keep McIsaac apprised of the comments, and Shake will check for consistency between the Klamath Task Force position and this letter.

8. Next meeting: The next meeting will be held just prior to the PFMC meeting -- August 1, 1994, at 10 am at the Columbia River Red Lion Inn in Portland. (The PFMC meets August 1-5 at the same location.)

Announcements

Boydston: The CDFG Commission is expected to adopt regulations authorizing the traditional Karuk fishery at Ishi Pishi falls at their meeting next month (Attachment 7).

Meeting adjourned.

KLAMATH RIVER FISHERY MANAGEMENT COUNCIL
Telephone Conference
May 23, 1994

Klamath Fishery Management Council members present:

Scott Boley	Pacific Fishery Management Council
Virginia Bostwick	Klamath In-River Sport Fishery
L. B. Boydston	Calif. Dept. of Fish and Game
(for Al Petrovich)	
Sue Masten	Non-Hoopa Indians Residing in the Klamath
Rod McInnis	National Marine Fisheries Service
(for Gary Matlock)	
Don McIsaac	Oregon Dept. of Fish and Wildlife
Pliny McCovey	Hoopa Valley Tribal Council
Bill Shake	U. S. Dept. of the Interior
(for Lisle Reed)	
L. B. Boydston	California Department of Fish and Game

Others:

Al Barraco	California Department of Fish and Game
John Coon	Pacific Fisheries Management Council
Russ Crabtree	Port of Brookings
Jim Craig	U. S. Fish and Wildlife Service - CCFRO
Troy Fletcher	Yurok Tribe
Ronald Iverson	U. S. Fish and Wildlife Service - KRFRO
George Kautsky	Hoopa Valley Tribal Fisheries
Robert Kope	National Marine Fisheries Service
Patricia Parker	U. S. Fish and Wildlife Service - KRFRO
James Seger	Pacific Fisheries Management Council

Draft Agenda
Klamath Fishery Management Council
Teleconference, May 23, 1994, 1:30 p.m.

- 1:30 pm Convene
ADMINISTRATION
1. Roll call (please state: "I understand I am being recorded")
 2. Review and approve agenda
 3. Approve minutes
- 1:45 pm TECHNICAL REPORTS
4. Report of the Technical Advisory Team (Barnes)
- 2:00 pm 5. Council discussion of the technical content of the TT's analysis of the spawner deficit accounting proposal
- 2:45 pm 6. Public Comment
- 3:00 pm 7. Action: Decision on further process for the spawner deficit accounting proposal.
- 3:30 pm 8. Next meeting date, time and agenda items
- 3:45 pm ADJOURN

KRTAT CLARIFICATION OF SPAWNER DEFICIT ACCOUNTING, MAY 1994

CONCISE DESCRIPTION OF THE PROPOSED ACTION

The proposed action under SPAWNER DEFICIT ACCOUNTING (SDA) would require that the deficit escapement (difference between the floor escapement and the post-season observed escapement) occurring in year i be added to the escapement target for management purposes in year $i+1$. The action would apply to any specified floor escapement level (currently 35,000 under the FMP). Deficits are not cumulative. Therefore, only one attempt at deficit accounting would be pursued in response to a sub-floor escapement event. However, if in a year of deficit accounting, the floor escapement were again not achieved, a new deficit (referenced to the escapement floor only) would be added to the floor level to set the escapement target the following year. Elevated escapement target levels (floor plus the deficit of the previous year) shall be constrained to a cap of 50,000 (or 43,000) natural adults in all years.

Under SDA, setting elevated escapement targets in years of depressed abundance could result in the closure of all ocean fisheries having any potential impact to the Klamath stock. Moreover, pre-season estimated abundance levels may not be sufficient to allow attainment of an elevated escapement target. Under these conditions, a *de minimis* impact level could be considered to allow ocean harvest managers an opportunity to access stocks in the fringe areas of Klamath fall chinook distribution with commensurate allocation to in-river fisheries.

Past discussions of the *de minimis* concept have considered: (1) a base harvest rate (ocean and in river) to be provided in each year or (2) definition of geographical regions where the contribution of Klamath fall chinook is below some arbitrary standard. The Klamath River Technical Advisory Team has examined the results of applying a 5% and 10% *de minimis* overall (ocean and river combined) impact rate to the 1994 season.

If SDA were applied to the current year, the pre-season predicted population size of natural spawners would be inadequate to attain of the target escapement level. A "no-fishing" scenario would be expected to provide only 45,800 adult natural spawners, 3,200 fish short of the escapement target of 49,000 (14,000 deficit of 1993 plus 1994 floor level of 35,000). Assuming *de minimis* levels of 5% or 10% combined ocean and in-river harvest rates, 6,900 and 13,700 Klamath chinook would be impacted respectively (Table 1).

Table 1. Expected impacts in numbers of adult Klamath fall chinook by fishery under assumed *de minimis* impact rates of 0%, 5%, and 10%. Impacts assume a 50-50% sharing between tribal and non-tribal fisheries. In-river recreational fisheries are allocated 12% of ocean impacts.

<u>FISHERY</u>	<u>COMBINED OCEAN/IN-RIVER IMPACT RATE</u>		
	<u>0%</u>	<u>5%</u>	<u>10%</u>
OCEAN (REC. & COMM.)	300	3,000	6,000
IN-RIVER RECREATIONAL	0	400	800
TRIBAL	300	3,400	6,800
NATURAL ESCAPEMENT	45,600	42,900	39,900
% OF SDA TARGET (49,000)	93.1	87.6	81.4

NEED AND PURPOSE OF THE PROPOSED ACTION

SPAWNER DEFICIT ACCOUNTING (SDA) is an extension of the rationale which established the floor escapement level for Klamath Basin fall chinook adult natural area spawners. Currently, the Fishery Management Plan requires the clearance of a 35,000 floor escapement level for adult natural spawners. The 35,000 floor escapement was established as the minimum safe level to avoid jeopardizing the long-term productivity of the Klamath fall chinook stock. Management actions of 1990 through 1994 were aimed at just clearing, or as in 1992, to fish below the escapement floor. While predictive methodologies have been refined to incorporate new information about the stock, the consistent failure to achieve minimum escapement for an entire brood cycle has elevated the risk of long-term impacts to the productivity of Klamath fall chinook.

In September 1993, the Salmon Technical Team and the Scientific and Statistical Committee of the Pacific Fishery Management Council reviewed an earlier report submitted by the Klamath River Technical Advisory Team regarding SDA. Remarks by both committees suggested alternate approaches to decrease the occurrence of chronic sub-floor escapements for the Klamath stock. These included adoption of an elevated target escapement in every year and refinement of predictive methodologies to minimize bias. These actions, while lessening the probability that SDA would be invoked, do not provide a substitute for the post-season adjustment mechanism of SDA.

Assuming that un-biased predictors of abundance and fishery impacts were developed, a 50% probability of missing an escapement target would still exist each year. In a year when management is constrained by the floor escapement level, this would be equivalent to a 50% chance of fishing into the floor. Currently, SDA is the only proposed method which allows for post-season adjustment of the target escapement level to increase the likelihood of clearing the escapement floor thereby lessening the risk of concurrent sub-floor escapement events. The magnitude of corrective actions prescribed under SDA is directly proportional to the magnitude of the spawner shortfall in a preceding year.

The July 1993 report by KRTAT provided results of simulation modeling to assess the response in specific variables to implementation of SDA. Modeling results suggested that, while long-term fishery yield may not change appreciably under SDA (depending upon the assumed stock-recruit-parameters yield fluctuated from a decrease of 17% to an increase of 2% when compared with status quo management), the incidence of "overfishing" would be reduced by as much as 75% as compared with status-quo management. "Overfishing", three consecutive years of sub-floor escapement, is believed to elevate the risk of long-term depression in stock productivity.

Of greatest concern are potential impacts to individual sub-basin stocks during repeated years of low "natural" escapement. The Stock Identification workgroup of the Klamath River Task Force concluded that the Klamath Basin is believed to contain numerous breeding units within discrete meta-populations. While simulation modeling of SDA did not examine the genetic consequences to individual breeding units, the immediate adjustments to the target natural escapement levels called for under SDA, offers a 75% improvement in interrupting "overfishing" and thus, minimizes the risk of under-escapement of entire broods of natural breeding units.

In conclusion, SDA is a unique management response to the spawner escapement needs of natural stocks of Klamath fall chinook. While overall benefits to harvest yield have not been demonstrated, SDA offers a method to reduce the risk of consecutive years of the failure to meet escapement objectives. The strategy remains flexible to new scientific interpretations of the absolute value of the floor escapement level.

MAY 31 1994

Schedule 7. Biennial salmon fishery management plan amendment cycle.

Month	Management Activity
November	<p>The Council identifies pertinent amendment issues based on input from advisory entities and the public (scoping session).^{1/} All major issues should be identified at this time (the Salmon Advisory Subpanel will be convened at this meeting whenever possible)</p> <p>The Council identifies a contact person or sponsor responsible for providing or working with the STT and staff to develop the following information for each amendment issue.^{1/}</p> <ul style="list-style-type: none"> a. Concise description of the proposed action. b. Need and purpose of the proposed action. <p>Complex issues which require user meetings to develop alternatives should have a schedule assigned to provide the information requested above no later than the March Council meeting.</p> <p>Council assigns STT and staff to review the issues and provide the following information in March (or no later than July on complex or yet to be identified issues).^{1/}</p> <ul style="list-style-type: none"> a. Assessment of need for action. b. Alternative ways to address the problem without plan amendment. c. Potential impacts from the proposed action. d. Possible amendment alternatives.
March	<p>STT and staff present review of identified amendment issues and recommendations for inclusion in the amendment.</p> <p>Council adopts amendment issues for draft analysis by STT and staff or for further development by appropriate parties.^{1/}</p>
July	<p>Staff and STT present completed initial draft amendment package for Council review.</p> <p>Council adopts issues and alternatives for the official draft amendment package for advisor review. All issues and the range of alternatives to be included in the amendment should be identified at this time.^{1/}</p>
September	<p>Advisors provide comments on the draft amendment package.</p> <p>Council considers advisor comments and adopts draft amendment package for public review.^{1/}</p>

Schedule 7. Biennial salmon fishery management plan amendment cycle.

Month	Management Activity
Early to Mid- November	Public hearings on draft amendment.
November	Council adopts final amendment for implementation by Secretary of Commerce. ^{1/}

1/ Council action required.

KFMC ASSIGNMENTS TO TECH. TEAM
5/23/94
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ASSIGNMENTS TO THE KLAMATH TECHNICAL TEAM
FROM THE KFMC TELE-CONFERENCE
OF
23 MAY 1994

- (1) Is the 35,000 floor for fall chinook valid under a drought scenario? It appears that habitat has been reduced in recent years when we have been floor managing. Is it advisable to adjust escapement targets prior to the escapement based on available data on habitat availability in the managed year? (Bostwick, with sympathy from Mclsaac).
- (2) Model run of SDA with a 5% *de minimis* impact rate for all fisheries and a cap of between 43,000 to 50,000 on the escapement target. (Mclsaac request to evaluate HVT proposal).
- (3) Evaluate an 8% *de minimis* ocean harvest rate with appropriate allocation to Indian fisheries. Baracco will provide detailed assignment language. (Boydston).
- (4) Hindcast SDA for past five years. What would have things looked like over past five years? Assume a (a) cap of 46,500 (splits the difference between 50,000 and 43,000), (b) 50-50 sharing between Indian and non-Indian fishers, (c) 5% total harvest impacts, and (d) 8% ocean with 50-50 to Indian fisheries *de minimis* impacts. (Mclsaac). (Allows for KRTAT creativity to address "hindcast" when actions imposed in year 1 would affect observed outcomes in years 2-5. eg, Could assume years 1-5 having predicted pre-season abundances as independent cases... Don will be available for tele-conference clarification of this request.)
- (5) Yurok representative will provide language for addition to Tech Team report relative to their expectations of *de minimis* impacts. (Masten). (Mclsaac recommended inclusion of this language as an appendix to report).
- (6) In a stock recovery year when managing for repayment of a deficit and constrained by cap, what takes precedence: SDA or Harvest Rate Management? (Orcutt). (Boydston commented that he believed that HRM would take precedence).
- (7) Convert numerical *de minimis* over all (ocean and terminal) impact rates of 5 and 10% to geographic boundaries for *de minimis* impacts in ocean fisheries. That is, identify lines of *de minimis* impacts which correspond to the portion of the impact rate which would occur in ocean fisheries. Assume (a) 50-50 sharing of ocean impact to areas north and south of the KMZ, (b) 50-50 sharing between Indian and non-Indian fishers, and (c) observed sharing between ocean commercial and recreational fishers ie in/out of KMZ--refer to 1992 and 1994 seasons for this. (Bowley). (Alan Baracco indicated that this could be achieved using the KOHM. May need to pin down additional parameters though...)
- (8) In any model re-runs called for under this assignment, tabulate the frequency with which the population dips below some base level of risk concern (1,000 to 10,000 natural spawners). Team comment on the significance to potential harvest under contrasted strategies (SDA, floor elevation, status quo, *de minimis*, etc.) to be used for economic modeling. (Jim Segar). (Kope commented that this was similar to Bowley's request (No. 7)).
- (9) Compare alternative methods to address chronic sub-floor escapement scenario. (Coon).
- (10) How does harvest rate management work under the Solicitor's Opinion. At high levels of abundance, where we are not managing for the floor, what are our side-boards for management? (Boydston). (Mclsaac said this is on the bottom of the list and not necessarily related to the issue at hand; SDA).

which we are confident is shared by the Pacific Fishery Management Council (PFMC) and the Klamath Fishery Management Council (KFMC).

The Task Force has provided a strong regional focus to identify and redress past land and water management actions which have contributed to the fishery decline. Examples include sediment control through watershed stabilization, sediment check dams and land purchases in Grass Valley Creek, development of minimum flow criteria to meet Trinity fishery needs, and the construction of interim instream habitat for rearing of juvenile chinook salmon and steelhead. The Task Force has also acted to coordinate present day land and water management activities in such a way as to partially mitigate deleterious effects on fisheries and wildlife of the region. Ongoing research is seeking to determine minimum instream flow needs for the anadromous fisheries of the Trinity River. Conclusions of these flow studies will be presented to the Secretary of the Interior in 1996 to assist the Secretary in establishing mandated fishery flows for the basin as provided in the Central Valley Project Improvement Act (Public Law 102-575).

The Task Force is aware that the PFMC and KFMC are exploring new harvest management approaches in response to the crisis over the salmon resource. In 1993, harvest managers acted to elevate the natural spawning escapement floor for the Klamath fall chinook by 3,000 fish. While the resulting escapement of 20,880 natural chinook salmon was still far short of the 35,000 floor mandated in the Fishery Management Plan (FMP), the escapement was approximately 60 percent greater than that observed in the preceding three years.

Presently, an entire brood cycle has now returned at numbers significantly below the 35,000 adult natural escapement floor believed necessary to avoid long-term declines to this valuable fishery resource. Natural area spawner escapements (fish spawning outside the hatchery environment) of adult fall chinook of 15,596, 11,649, 12,028, 20,880 in 1990, 1991, 1992, and 1993 respectively, have been documented for the Klamath/Trinity Basin. Four successive years of natural spawner escapement shortfalls of this magnitude are unprecedented for the population of Klamath/Trinity fall chinook. This is of great concern to both harvest and habitat managers for it could potentially delay recovery of the resource indefinitely regardless of further management actions.

By 1993, three successive years of sub-floor escapement triggered an "overfishing" review for Klamath River Basin fall chinook by the PFMC to examine the causes and propose solutions for failure to meet spawning objectives specified under the FMP. Elimination of bias in predictive methodologies used for stock abundance forecasting could be addressed within the context of the existing FMP. The PFMC could also consider modifying the FMP by either the plan amendment process or by emergency rule within the current FMP. One approach would be to elevate the floor for natural spawners to 43,000 as originally recommended by the Salmon Technical Team. In addition, the system of "spawner deficit accounting", proposed by the Hoopa Valley Tribe in 1993, would ensure a remedy to compensate for a spawning escapement shortfall by adjusting the escapement requirement in the subsequent season.

While technical analysis of deficit accounting showed no benefit to long-term stock productivity, this policy is the only proposal which institutes post-season corrections for spawner escapement errors occasioned by the prediction methodologies on which fishery science depends today. Further, the probability of clearing the spawner escapement floor would be elevated in years when deficit accounting was applied. Implementation of spawner deficit accounting in 1994 would require adding the deficit in natural escapement from 1993 (35,000-20,880=14,120) to the 35,000 floor in 1994 (35,000+14,120=49,120). Strict application of spawner deficit accounting could require severe harvest restrictions in years of low abundance.

In conclusion, the Task Force encourages harvest managers to consider all means by which to successfully clear the minimum escapement floor of 35,000 adult natural fall chinook in all years. The 1994 salmon harvest management discussions within the PFMC have commenced. New harvest management strategies will need to be explored in concert with continued land-management reform to minimize the risk of further fishery decline.

The Task Force believes that solutions to the salmon crisis may be found through the combined efforts of habitat and harvest managers. Coordination between harvest and habitat managers at the regional level is already occurring to some degree in meetings of the "Four-Chairs", and concurrent sessions of the Klamath River Basin Fisheries Task Force and the Klamath Fishery Management Council. Accordingly, the Trinity River Task Force seeks an opportunity for more detailed discussion of our restoration work, and to coordinate future harvest management decisions with your activities. If you have any questions, please contact Mr. Chip Bruss at (916) 978-4956.

Sincerely,
(sgd) DAN M. FULTS

ACTING FOR

Roger K. Patterson
Chairman, Trinity River Task Force

bc: Trinity River Basin Field Office
Attention: TRO-100

STATE OF CALIFORNIA—THE RESOURCES AGENCY

DEPARTMENT OF FISH AND GAME

1416 NINTH STREET
P.O. BOX 944209
SACRAMENTO, CA 94244-2090

(916) 653-7664

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Bill Shaker + Don McIsaac	KRFRD
Dept./Agency	Phone #
	916-842-5763
Fax #	Fax #

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GENERAL SERVICES ADMINISTRATION

N, Governor



FAXED
5/19

May 13, 1994

Mr. Alvis Johnson
Chairman
Karuk Tribe of California
P.O. Box 282
Orleans, California 95556

Dear Mr. Johnson:

This is to advise you that current California fishing regulations do not provide for the use of dip nets by Karuk tribal members to catch fish at Ishi-Pishi Falls on the Klamath River. This change occurred by omission when current regulations affecting river trout and salmon fishing were restructured in 1989. We have, therefore, submitted a recommendation to the California Fish and Game Commission (Commission) to readopt the regulations that previously provided for your tribal fishery at Ishi-Pishi Falls. Adoption is expected at the Commission's June 16-17, 1994 meeting in Bridgeport.

For more information, please contact Mr. Richard Elliott, Regional Manager, Region 1, Department of Fish and Game, 601 Locust, Redding, California 96001, telephone (916) 225-2363.

Sincerely,

COPY Original signed by
A. Petrovich, Jr.

For
Boyd Gibbons
Director

cc: Bureau of Indian Affairs, Sacramento

Klamath Fishery Management Council

National Marine Fisheries Service, Southwest Region

Regional Manager, Region 1, Redding

Fish and Game Commission