United States Department of the Interior

FISH AND WILDLIFE SERVICE

Klamath River Fishery Resource Office
P.O. Box 1006
Yreka, CA 96097-1006

October 25, 1993

Memorandum

TO: Task Force Members

FROM: Assistant Project Leader, Klamath River FRO
Yreka, California

SUBJECT: Draft minutes of the October 5-6, 1993 meeting in Hoopa

Attached please find the minutes of your most recent get-together. The taped recordings of the meeting were stolen from Beverly Wesemann's locked van while in Hoopa, so recovery of comments, verbatim, is impossible. If you have further questions, please let us know.

A parting note -- thank you all for making my stay at KRFRO a positive one. I enjoyed working with you on this restoration project, and wish you the best of luck.

Douglas L Alcorn

Doug Alcorn

Attachments

Klamath River Basin fisheries Task Force
Hoopa, California
October 5-6, 1993

10-05-93

Members present: Nat Bingham, Kent Bulfinch, Mitch Farro, Barbara Holder, Walt Lara Jr. (with Ronnie Pierce), Rod McInnis, Mike Orcutt, Forrest Reynolds (for Rich Elliott), Bob Rohde (for Leaf Hillman), Bill Shake, Tom Stokely, George Thackeray, Keith Wilkinson

Absent: Don DeVol

Agenda items 1 & 2: Adoption of agenda and approval of minutes.

Agenda (Attachment 1) was adopted and minutes from the June, 1993 meeting were approved.

Agenda item 3: Final Federal work plan for FY1994 -- clarification. Deferred until later in the day.

Agenda item 4: California work plan for FY1994.

(Paul Hubbell): (Referred to a list of projects mailed to the Task Force at an earlier date, Attachment 2) $227,000 will be used to fund 13 projects, including habitat restoration, education, and fish protection projects. Six of the projects are in the Klamath Basin -- Kidder Creek School, habitat restoration work on the Klamath and Six Rivers National Forests, Siskiyou education district, CCC program, and the Yreka Screen Shop. Funds came from the Salmon Stamp and Proposition 70 sources.

[Hubbell also described the ongoing fish restoration program in the Klamath by CDFG staff. Biologists are examining fall angler harvest from the mouth of the Klamath to Coon Creek. CDFG staff will also determine age and length composition, and will recover all tagged fish. They will estimate the fall chinook escapement upriver from Weitchpec. The natural stocks assessment work will continue in scale analysis work, and the Department will continue year-round investigations in the estuary, looking at seasonal patterns of juvenile entry and use of the estuary. Staff will measure the physical and chemical parameters of the estuary, by season.

(Reynolds): To add to the report, the screen shop tries to construct and put two new screens on-line each year.

Agenda item 3: Final Federal work plan for FY1994 -- clarification.

(Iverson): The Federal work plans for FY93 and FY94 (Attachments 3 & 4) were distributed to Task Force members earlier in September. If you want to see what became of the list of proposals approved in June, you need to look at both work plans. Some '94 projects will be funded with '93 funds. The $21,348 curriculum development project shown on the '94 work plan is the amount available. If funds become available, that cost figure would increase to the proposed amount.

Shake announced that Doug Alcorn is transferring to the USFWS office in Washington D.C. He also thanked Mike Orcutt and the Hoopa Tribe for hosting the meeting.

Agenda item 5: Report from upper basin ad hoc committee Chair.

(Thackeray): The big issue now is the recent establishment of the Ecosystem Restoration Office in Klamath Falls. It will play a big part in the restoration effort but is not intended to supplant this Task Force's efforts. The mood and trend of the administration today is for ecosystem restoration, not species specific. Hopefully this will help us in putting together a plan that will be acceptable for all resource users in the Klamath Basin. The committee has no recommendation on the upper basin amendment at this point. With Doug's transfer, we're looking at months before we have a review document that incorporates all of the public comment. I would ask Keith and Mike to provide comments.

(Wilkinson): One of the things determined was that we would use the same comment evaluation process that we used on the first draft amendment. We will incorporate the comments of the upper basin representatives and bring a completed package with a do-pass recommendation. It's premature to estimate what that will be at this point.

(Orcutt): I tried to help facilitate in what ever manner that I could. Some of the meeting participants are frustrated with the progress. We all realize that we need to come together to work something out. It may take longer than we all envisioned but the product may be something we can all live with. One thing we need to do is to set milestone dates for completion of the document.

(Shake): We have some of the upper basin folks on the committee. Would any of you like to comment?

(John Crawford): Frustration describes most of our emotions. All upper basin folks are concerned about the document. The new Ecosystem Restoration Office (ERO) has provided a new player in this restoration program. It has led to some confusion for us because we don't know who to work with. The water users have provided written comments on the upper basin document. We feel it would be more appropriate to accomplish restoration in the upper basin through the ERO since they're looking at a budget possibly six times that of the Task Force's budget. Clarification from Interior is needed to know who will take the lead. If the Task Force knows of projects that will benefit fish in the lower basin they should identify them to ERO staff. I think establishing milestone dates for the upper basin document is a good idea. We need to be on the same track.

(Elwood Miller) : I would reiterate that frustration. We've tried to make headway with all users, but we're stalemated by what will be acceptable by the Task Force. We need to know how we'll work with the Task Force and who will take the lead. We've talked about the process of developing the upper basin document by incorporating public comments, but we don't know what will be acceptable by the Task Force. You must take all of the information provided on the upper basin document, see how it fits into the amendment and then send out a draft back to the public. I don't see anything being accomplished until that happens. We've met with irrigators a few times and are spinning our wheels. We need to know what the process will be.

(Shake): Doug, would you explain status of the ERO?

(Alcorn): The project leader has recently come on board and we've held a couple of staff meetings. The office is staffed by representatives of Federal agencies which include the Bureau of Reclamation, the Fish and Wildlife Service, Bureau of Land Management, and the Forest Service, and the Klamath Tribe might be involved via the Bureau of Indian Affairs. The first tier of management and decision making will be with this group. The second tier of decision making authority will be with representatives of local resource users, local and state governments and their respective agencies. The third

tier will include the public and interest groups. The focus is on restoration of the upper basin, but this Task Force and downstream issues are represented by KRFRO staff. The office will serve as a liaison between the public, resource users, and the resource management agencies. Federal dollars will be used to fund restoration projects, similar to the way this Task Force funds restoration work. We've been informed that the FY1994 budget could exceed $5.5 million. I suggested that ERO use the Task Force's long range plan for guidance in selecting projects because the plan has already gone through the NEPA process.

(Shake): We will hear a briefing on the ERO by Ron Garrett at 1:30 pm today.

Agenda item 6: Effect of the upper basin amendment document on FERC relicensing of Klamath River dams. (Randy Brown, USFWS)

(Brown): I appreciate the opportunity to address the Task Force regarding FERC relicensing of the Klamath hydro projects, and the role the Task Force will play. Our concern is with the upper basin amendment as it's currently proposed. (Brown handed out attachment 5.) Many people don't have a good feel for what the relicensing process involves. Relicensing is done by the FERC, under authority of the Federal Power Act. (Brown read text from the handout.) FERC is more court-like in the way that they deal with the public and the way agencies and public must deal with them. The process is very formal. Relicensing now considers issues such as fish and wildlife resources in addition to other resource values. Most of FERC staff is back in Washington D.C., but there are regional offices in the West. Most of the staff level employees are engineers. FERC will consider a single purpose plan such as the Task Force's long range plan as a "comprehensive plan" which can be submitted to the agency during the public comment period. The best comprehensive plan is one that looks at all of the issues, however they've also said they will look at single purpose plans and consider them in the relicensing process. As the FERC regulations are now written, the owner of a project must file a notice of intent with FERC between 5 and 5.5 years prior to license expiration. A three-year period is used for developing the comprehensive plan. Preconsultation can occur prior to the 5 year period. During the consultation phase the project developer will consult with agencies and the public telling them what the developer intends to do and what studies will be conducted. Agencies will respond and say what they think needs to be done. After preliminary studies are completed, the project developer will submit a draft application for review. The final draft is based on comments from agencies. FERC will then review the final document and go through the NEPA process. After this they may, or may not, issue a license. Section 18 of Federal Power Act says that FERC shall require the licensee to develop/operate/maintain fishways. Costs are to be born by the project applicant. The Klamath hydroelectric project Notice of Intent will be required around the year 2000. New licenses are issued for terms extending for 30-50 years. The Link River dam is not part of the project but the power houses on it are part of the hydropower project. There is ample discussion in the Klamath Act for restoring the watershed and fish populations, all addressed in your long range plan, and pertinent to the relicensing process. This Task Force is providing direction for restoration of anadromous fish in the basin and your involvement in the FERC process can be two-fold. First, the long range plan would be viewed as a comprehensive plan for restoration. Second, you may wish to provide comments to Pacific Power and Light Company during the consultation process, during both stages of consultation. When FERC develops an EIS on the application you should be prepared to comment. The Ecological Services division of the USFWS is concerned that the upper basin amendment does not support reintroduction of anadromous salmonids into the upper basin. The Task Force should not, prior to the completion of the relicensing process, preclude reintroduction of anadromous fishes into the upper basin.

(Shake): Are project proponents required to do instream flow studies or are agencies supposed to provide that information during the relicensing process?

(Brown): The instream flow needs information is needed and usually provided by the applicant. I suppose they'll do it for the Klamath hydro project.

(Shake): Would they do it in upper and lower basin?

(Brown): Yes.

(Shake): However, that may not be for 7 or 8 years, right?

(Brown): If they follow the FERC requirements, they'll have to begin collecting the information by the year 2000. However, I think they may start these things sooner because of the complexity of the project. It would be tough to complete this process in the 2-year formal time-line.

(Reynolds): Can some outside entity petition FERC to address specific problems caused by hydro projects?

(Brown): Yes, there exists a re-open clause. FERC holds a hearing, but entities must have all of the information at the outset. FERC used to allow the applicant to defer consideration of fish and wildlife issues until after the license was issued. This provided no incentive to deal with these issues. Recently, FERC is not allowing deferment of these issues. In the Central Valley Project some Sierra streams are under license consideration now.

(Bulfinch): When a project is operated by a private utility company, the private agencies commit capital for this process early so it doesn't impact their cash flow. So, PP&L would probably want to be involved with the process earlier.

(Farro): Are you following the Pit River relicensing process? Are there similarities that we can apply to this program?

(Brown): Yes, I'm the USFWS representative on that project. We are in the second phase of consultation. The applicability might be to know how the process occurs. It's a confusing process and is not easy to get involved. It's a lot more formal than normal dealing with most government agencies.

(Wilkinson): Randy, would you offer your professional advice on how we would address mitigation numbers, and shorten the cycle of how we would address these issues? It appears that we can only appeal on the mitigation requirements during the relicensing process. If the new license is for 30 or 50 years, can we build-in a shortened review of the mitigation requirements?

(Brown): You could state in your comments to FERC that the license could be shortened from 50 to 30 years. 30 years is the shortest license period.

(Wilkinson): I'm concerned that 30 years is too long with respect to designing mitigation requirements. It's apparent that it is a critical component of enhancing fish populations.

(Reynolds): The definition of "enhancement" is variable, and FERC must know what agencies mean by enhancement.

(Bulfinch): We must proceed with great care on whether we ask FERC to require fish passage facilities because it could make void the requirement to operate the mitigation hatchery.

(McInnis): I don't understand the significance of a statement on slide #12, specifically the phrase "present baseline conditions." I'm at a loss.

(Brown): It has to do with defining terms such as mitigation, restoration, and enhancement. For example, on the Pit River project, restoration was only upstream from Shasta Dam to the Pit River #4 dam. Restoration was not required farther upstream because the other upstream dams existed prior to Shasta Dam. We made the case that it should cover pre-existing areas, and FERC disagreed. They said it was to consider the conditions at present. With respect to the projects on the Klamath River, anything done in excess of maintaining what's on the ground right now would be considered enhancement. The way recommendations are written they address mitigation, enhancement, and restoration as a whole, but FERC decides these recommendations.

(Bulfinch): If we consider what's on the ground now, the stocks have been extinct in the upper basin for more than 60 years. This seems to contradict your recommendation.

(Brown): Perhaps it does. FERC will look at the comments to determine what all resource users want from the basin resources. Restoration of anadromous fish are specified in the Klamath and Trinity Acts, and would be considered by FERC. Anadromous fish establishment is something being done in other systems such as the Elwah River in Washington. I'm not suggesting that we introduce fish in the upper basin, but that it should be considered as a possible option. In my opinion, the position held by the upper basin amendment precludes that option.

(Shake): OK, in summary, what would you recommend for this Task Force to do? Is there something we can do now to get the process started?

(Brown): The upper basin amendment is the key, you need to see how it relates to relicensing. I've not talked with Pacific Power and Light Company and don't know if they want to open the process early. But as the lead group for reintroduction of fishes, you might want to advocate that position to PP&L.

(Shake): Let's keep that thought for an action item, a letter to PP&L. [Editor's note: literature on FERC licensing issues is available. Contact Mr. Randy Brown for more information.]

Agenda item 7: Public comment.

(John Crawford): How is it appropriate for the FERC to consider the long range plan as comprehensive? It clearly is a single purpose plan.

(Brown): I'm using FERC's definition. A comprehensive plan used to require inclusion of all issues, but FERC now considers single purpose plans as comprehensive.

(Felice Pace): One of the practical things the Task Force is involved with is the instream flow study. The fact that that has been delayed is a concern of my organization. We don't seem to be able to agree about who should do it or what should be done. I'm concerned that we're not moving forward on that issue. How is the Task Force going to move forward on this issue?

(Mary Taylor): Some of the dams were built during the World War Two effort. It was the fish and wildlife agencies that opted for hatcheries. You ought to consider that.

(Reynolds): When is the meeting scheduled to discuss the instream study?

(Iverson): 3-4 November in Redding.

Agenda item 8: Task Force discussion of upper basin amendment.

(Shake): Those that commented earlier this morning expressed frustration with the process so far. An idea for discussion, it seems to me that we're down to a few issues of disagreement. It seems like we need to have those differences outlined and presented to the Task Force. These findings would look at options and discuss the pros and cons. Rather than having KRFRO staff blend the comments into the document, I suggest having them outline the issues and differences, and discuss staff's findings in our winter meeting. We're not really ready to take action at this meeting.

(Farro): The subcommittees met with the goal of interfacing the two plans. Where does that stand?

(Shake): That's what we'll have staff put together, a synthesis of things.

Agenda item 9: Action - Task Force decision on how to proceed with the upper basin amendment document. Set milestone dates?

*** Action ***

KRFRO staff will review comments received on the upper basin amendment document; develop a findings on the unresolved issues and policy recommendations; and send to Task Force members prior to the winter meeting.

(Thackeray): Will we also have the ERO input in the entire comment packet?

(Shake): Yes, we want them involved. I want to ensure John Crawford and Elwood that we'll not do anything without your involvement. We'll seek consensus.

(Iverson): You want us to look at each policy area where there are disagreements, summarize the two differing opinions.

(Shake): Right.

(Felice Pace): Will that be available for public review?

(Shake): Yes.

Agenda item 10: Amendment of the Trinity River Fish and Wildlife Restoration Act - Applicability to Klamath Restoration Program?

(Lane): We realized that the milestones established in the Trinity Act did not allow enough time to complete the restoration project. We are now seeking an extension of five years and $22 million. That report is in your packet (Attachment 6). The report was prepared in March and circulated to private and the public sector. It's now been circulated through Interior. Recently the Technical Coordinating Committee (TCC) has recommended an additional $13 million for the South Fork Trinity and Grass Valley Creek watersheds. Regarding our three-year action plan, each year the staff prepares an action plan, focusing on the current year. (Attachment 7). FY1994 is the most recent. Allocation of funds totals about $6 million. One significant difference (action item 3) is that we've been given the cease and desist order by the North Coast Water Quality Control Board. There are $600,000 dollars available to work in the South Fork, and other mainstem areas. In FY1993 we built at least a dozen pilot construction projects (side channels and feathered edges). A complaint was filed with the NCWQCB, culminating in a cease and desist order. Water turbidity during construction exceeds the control board's standards. There have also been complaints to the U.S. Army Corps of Engineers on this work. Our regional 404 permit expires next spring.

We're welcoming a thorough review of these projects. I think people are now ready to listen to each other and work out the best solutions.

(Stokely): I've handed out a clean up and abatement order issued by the control board (Attachment 8).

(Shake): How is the Trinity River Task Force (TRTF) dealing with this?

(Stokely): During the September Task Force meeting Anna Sparks (North Coast Water Quality Control Board Chairperson) announced that a cease and desist order was issued. The TRTF asked the TCC to reevaluate the budget over the next two years to redistribute about $2 million funding that had been intended for bank feathering and side channels. Two alternatives suggested were: 1) leave the money in budget and just do something else with it, such as an environmental impact report on this work, or 2) put more money into the South Fork watershed. The issue is not resolved at this point. My position for Trinity County is that these projects cannot proceed without completing an Environmental Impact Statement (EIS) on this work. Many of these projects were performed under an Environmental Assessment (EA) completed by the USFWS. The development of the EA had no public notice or appeal process allowed. Considering how long it takes to do an EIS and that there are only 2 years left in the program, it is complex. Not all agencies can agree on this issue. I felt compelled after what I saw a couple weeks ago, to draft the report to the supervisors (Attachment 8).

(Shake): So, they started out as pilot projects?

(Stokely): Yes, all of the bank feathering projects were constructed as pilot projectss. The side channel construction projects are underway but not yet completed. There will be a meeting this month to discuss all options.

(Reynolds): It was never clear to me that this project was to proceed full-force. I thought it was a pilot project. On the Klamath River side, the Department performed some of these things and we've been able to meet water quality standards.

(Lane): We do have a programmatic EIS in draft which is being finalized at this time. Pilot projects are being done under the EA. The Trinity River projects are different than ones on the Klamath River. They are more extensive, requiring more vegetation removal and more digging. It needs to be pointed out that these projects were not implemented in a vacuum, agencies were notified when permits were obtained (such as the CDFG 1603 permit). Another issue of concern is why the restoration program is just now getting underway with habitat restoration work as it nears the end of the authorized time frame.

(Stokely): One of the reasons that this is rushed is that the Trinity Act contains a clause that states no work could occur in the mainstem until Buckhorn Dam was completed. In my opinion that was a mistake. The intent of the program is very good, they're trying to do what they believe is best. Regarding the 1603 process, the Department of Fish and Game (CDFG) doesn't feel they can enforce on federal land the provisions contained in Section 1603 of the Fish and Game Code. This is undermining the CDFG's ability to prohibit turbidity from development and logging operations. Regarding the EA/EIR being prepared, my memo suggested that it needed to be an EIS/EIR.

(Farro): Would the Secretary of Interior's flow studies on the Trinity and Klamath Rivers impact the decisions of the bank feathering and side channel? How helpful of a tool are the studies?

(Lane): The pilot projects are needed to evaluate how much flow is required to maintain the channels and streambeds, and should be done before completion of the instream flow studies.

(Stokely): One of the concerns about full implementation of these side channels and bank feathering projects is that we don't know what the flows will be and how the projects be maintained with varying flow regimes.

(Shake): I'd like an update on this issue at our winter Task Force meeting.

(Stokely): OK.

*** Action ***

KRFRO will place an update on the Trinity River bank feathering cease and desist order on the Task Force's winter meeting agenda.

[Record keeper's note: due to numerous cancellations, some agenda items were taken out of numerical sequence.]

Agenda item 15: Report on coho petition by Pacific Rivers Council.

(Felice Pace): The Pacific Rivers Council has been working on a petition for a coast-wide status review for coho. We've discussed the need for status reviews and action pursuant to the Endangered Species Act (ESA). This petition has been prepared, but not filed, as a direct result of those discussions. As a member of the CRMP the Klamath Forest Alliance wanted to explain to the CRMP why we decided to join that review. We also want to ask the Task Force to request of some of it's member groups and organizations, to take some action on coho. The petition is being filed because the coho are in trouble coast-wide. The CRMP asked Ron to present some information on what we know about the status of coho. Ron quoted Moyle's work which states that in the 1940's 1 million coho were estimated in California rivers, by 1990 less than 5,000 wild coho exist. One of the problems is that we don't know much about coho. Of the runs that have been surveyed in California, Moyle found that 1/2 of runs are extinct. Coho appear to be moving toward extinction coast-wide running south to north. The Humboldt AFS considers coho as a stock of concern and at risk of extinction in the Klamath basin. The reasons why Klamath Forest Alliance has decided to join the coho petition include the status of the species in this State, and the failure of States to enforce adequate forest practices on private lands. They've failed to address the needs of fish and the aquatic ecosystem. The coho petition is needed to provide motivation to States to get the job done. If the earlier timber practice reform had succeeded you probably wouldn't be seeing this petition now. I think the Task Force long range restoration program fails to adequately address the needs of the coho in the Klamath basin. I would qualify that by saying some of the general objectives are broad spectrum and do address coho, but not the specific needs of the species. I studied Snyder's 1931 document. Silver salmon were thought to migrate to rivers' headwaters to spawn. In 1925, 225 salmon appeared at the Klamathon racks. In 1919 and 1920, there where 2,272 kings and 1,121 silvers surveyed near the cannery at Requa. The actions we'd like the Task Force to consider for coho are: 1) the Task Force should request CDFG and the U.S. Forest Service (USFS) to develop programs or review existing programs on addressing specific needs of Klamath River coho, 2) to develop information on the status of adult and juvenile populations and 3) to develop conservation strategies for these stocks. We'd like them to be developed for possible adoption by National Marine Fisheries Service (NMFS). One of the things the NMFS will need to do is determine what is an Evolutionary Significant Unit (ESU). Moyle identifies 14 stocks in the Scott River basin and I doubt that NMFS will concur with Moyle.

(Farro): This petition for listing has been around for some time. Is it a request for a review of status? Rod, how will NMFS consider this petition?

(McInnis): We now have a petition from Oregon Trout to list Oregon coho only. We've been hearing about the petition for coast-wide listing but haven't received it.

(Pace): The final petition has not been submitted.

(McInnis): As part of the review of the existing petition, there will be a determination made on what constitutes an ESU. That may extend beyond the Oregon coho.

(Reynolds): The Fish and Game Commission has unofficially accepted that coho below San Francisco bay can be considered part of an ESU. My recommendation is for the Commission to endorse a recovery plan for the fish that were petitioned (Waddell, Scott, and Big creek populations). The CDFG will enter an agreement with Santa Cruz County to work on recovery. We here rumors of petitions from many organizations. Felice, does the Pacific Rivers Council now have another one?

(Pace): I believe the petition from Audubon and Pacific Rivers Council will be the same petition. It will be filed by many different groups, included the American Fisheries Society.

(Holder): I'd like to ask Jack West to comment on our ability to act on this recommendation regarding additional information on status and development of conservation measures.

(West): I think it's possible for the Department and the USFS to gather information on distribution but status is a tougher question to answer. That is ultimately the Department's responsibility. We have fair abundance information for juveniles in our forest areas. That's my understanding on what Felice is requesting.

(Holder): Many of the conservation measures would potentially benefit coho as well as other species.

(West): Yes. Most of the conservation measures are not species specific. Things like erosion control and instream diversification are not always species specific.

(Stokely): A group of farmers and fishermen met recently to discuss this petition. It's gotten the attention of the industries. The group will put together a group of biologists to deal with this issue of listing. They're developing a plan to assess abundance of coho in California and they will ask agencies to sign off on a survey protocol. In the long term, they're looking at what actions can be done to improve habitat for coho. Most representatives agreed that even if there are other factors impacting stocks, the best they can do is improve habitat on their lands.

(Farro): That group is making progress and will meet next week. It's nice to see private landowners coming to grips with this problem.

(Shake): What's the CDFG's position in terms of regulations for protection of these stocks?

(Reynolds): There are probably more things we're doing for coho than we have time for. One of the concerns that we have is there is a feeling that if farmers and timber operators count fish in their creeks that will be the estimate used to determine the status of the stocks. I doubt if that will be the case. In large part California doesn't have an in-river fishery for coho.

The only fishable numbers in hatcheries are at Iron Gate, Trinity River and the Noyo River hatcheries. In order to get away from polluting local stocks, we quit transferring them long ago. The Department has done a lot of restoration work in the Scott river system including shading fencing, etc.

(Pace): I maintain that if you look at the life history of coho, we haven't addressed the needs. There are surveys for salmonids but these don't usually focus on coho. Agencies don't have any plans that focus on the life history needs of the species. If you don't address those needs, you'll not address the species with general restoration work ongoing now. I also failed to mention that, in our designation of "key" watersheds, have we thought about coho in the Klamath River? I don't think so. If coho are listed, they will need to have species specific strategies for recovery. I'd like to make my request more specific. If the Task Force decides to pursue this, you should ask the agencies to report on what has been done to restore, monitor, and benefit the species. The Task Force might then consider this at a future meeting, making recommendations.

(Holder): With the addition of new biologists, we can do it by next meeting.

(Reynolds): I don't think it's appropriate to commit to this request until NMFS gets a petition. It's not appropriate for the Task Force to generate additional work load for agencies already overloaded.

[Shake asked for comments from the audience, received none.]

(McInnis): Regarding coho management in the ocean, over the past three years the Pacific Fishery Management Council (PFMC) has reduced the coho harvest rate south of Cape Falcon in Oregon. The PFMC has an amendment to their plan that will reduce the coastal coho harvest rate to approximately 25% below Cape Falcon which includes California. There are things being done in the ocean too.

(Farro): A group working in Humboldt County, specifically Freshwater Creek, brought in fish from Prairie Creek Hatchery, opened new access and developed instream structures. Surveys indicate that the system is very well seeded with coho. It's now gone to a more comprehensive plan by Pacific Lumber to develop a watershed plan.

(Reynolds): That project was funded by CDFG almost entirely. We've funded monitoring, restoration, etc. Pacific Lumber Company was a latecomer. There are things being done, but more should be done.

(Shake): Is there any action needed by the Task Force? [No suggestions. Adjourn for lunch.]

Agenda item 11: An ecosystem approach to conserving biodiversity in the Klamath Basin.

(Steve Lewis): On behalf of the ERO we're pleased to be here and be a part of the meeting. We look forward to working with you.

(Ron Garrett): I'm with the Klamath Basin Ecosystem Restoration Office. The ERO is a major initiative to implement ecosystem management in the basin, based on the concept of partnership. Ecosystem management is now thought to be the way to go by the USFWS. There are some differences between the Task Force and the ERO office. The Task Force's focus is principally in the lower basin, and ERO will focus on the entire basin. The Task Force has been mandated into its existence, and the ERO is established in response to the emergency situations. We have a list of mandates that require the USFWS to be involved in the basin. To consider ecosystem functions rather than only

anadromous fish restoration, the Task Force effort would have to be broadened in scope. This would require rewriting the authorizing legislation. Regarding working together there is a need to assess what the ramifications would be. [Garrett made a more detailed slide presentation of the role of the ERO and the concept of ecosystem management.]

(Lewis): Ron gave a good overview, we're a new program and getting our feet on the ground. We're not created by mandate, but because the Federal Government felt they wanted to do business in a new way. The Bureau of Reclamation came forward and said let's get together, the USFWS agreed. We've picked up support from BLM, USFS, the water users protective association, the Klamath Tribe, and others. The concept of this office is that it is being built on partnerships. We're focused on restoration of the form and function of the ecosystem, and eventually delisting the endangered suckers. We'd also like to develop an ecosystem that is more elastic; one that can withstand environmental challenges such as the recent drought. Restoration is not trying to get the ecosystem back to pre-1850 conditions. We're looking into what can be done to protect resources and resource users. This office is formed by cooperation between agencies and groups, and is not creating more government positions. Staff are coming from existing offices. We're the same government working toward partnerships.

(Bulfinch): The team approach seems to be good, but who's the quarterback?

(Lewis): I'm responsible for performance of the office, but the quarterback is the public and parent agencies. All the partners will also have a say and the third level of involvement would be from the public. The office is called the "Klamath Basin Ecosystem Restoration Office" which encompasses the entire basin, and is a cooperative effort from all players. No particular agency will call the shots. It's not a unilateral approach where one person or agency is in charge. We'll all have an opportunity to see that this goes forward.

(Reynolds): Specifically, how will the office measure its own success? What will be the product of the office?

(Lewis): There will be a couple of products. If we're successful in getting the $5 million funding for FY1994 we'll fund on-the-ground projects. The second product is to develop long term planning documents. Third this office is not set up in a permanent way but is set for four years. If it doesn't perform, then agencies directors may remove it.

(Shake): Another issue that came up earlier this morning, the Task Force was interested in how this office would relate to the Task Force. Let me characterize how I think how it should work. The ERO would use the Task Force's long range plan as a part of the information in looking at the needs of the ecosystem. As you begin to look at issues this group or the staff office could provide another communication link. The USFWS-fisheries would also have a team member in your group who really understands the needs of the fish and wildlife. It's a new way of trying to do business and may be the wave of the future. Vice President Gore is trying to reinvent government, actively practicing outreach with other cooperators and public. Any other comments?

(Lewis): One of the things of concern to people is that the Federal government is implementing another study. The work that the Task Force has done, we don't need to reinvent strategies for recovery of anadromous fishes, there also exists a sucker recovery plan, and a plan by the water users. These can drive where we go in the future. If you look at planning, we already know a lot about what's happening in the upper and lower basin. The plans existing can be integrated. The $5 million is on a short time frame. It's '94 money but must be obligated and spent this year. We may be able to do some things

in the lower basin. We'd like to work with a representative or with Ron Iverson's staff for identifying projects down here. The Shasta River irrigation delivery system is a notable problem that we can work on if we don't interfere with your program. If we take the money we'd like to work with you on identifying projects. If we can fund good projects we'd like to work with you on it.

(Shake): I agree that you should work with Ron Iverson's office to identify projects in the lower basin. We already have a list of ranked projects that can be used. I also suggest that you involve the budget committee in this process.

(Lewis): We'll fast track this, if you're agreeable, to work with Ron and your budget committee to develop some ideas.

(Shake): The Task Force would also want a chance to comment on the list of projects to be funded.

(Thackeray): We'd appreciate involving the upper basin ad hoc committee in this process.

(Reynolds): You mentioned the issues on the Shasta River. The Shasta Valley CRMP and others have discussed these as well. You may want to work through the Task Force and the CRMP on that.

(Lewis): The $5 million is to put displaced workers back to work. We need projects already approved through the NEPA process. And, while we say the $5 million is not definite we do have $400,000 available through the National Fish and Wildlife foundation for on the ground work. I would also point out that there are other funds available, and with your help we'll be able to do some good things.

(Shake): I suggest that we convene a meeting of the budget subcommittee to look at the FY1994 work plan and identify priority projects. They need to do this soon. Ron will set up the meeting.

***** Action *****

The Budget Subcommittee will meet to review the FY1994 ranked list of projects, identifying those that would be suitable for funding consideration by the ERO.

Agenda item 9: Task Force decision on the upper basin amendment (continued).

(Holder): We've left some unfinished business. Regarding the upper basin plan and KRFRO's analysis of the issues -- we need to establish milestone dates so we're ready to take action.

(Shake): One of the parts of my assignment to Ron was to summarize the issues by our winter meeting, and to insure that the ERO was involved in the process.

(Lewis): We are staffed, and can be reached at the Bureau of Reclamation's phone number (503) 883-6935. You can call us and we'll get things started.

(Shake): I suggest that we discuss KRFRO's findings in our winter meeting, then at the following one we should be prepared to make a decision on the upper basin document. I think it's only fair to make a decision on the document meeting after next.

(Farro): Question for the ad hoc committee. Are things far enough along that things can be put together in short order?

(Shake): The work group has gotten about as far as they can, and we've asked staff to develop a briefing on the comments.

(Reynolds): It's the Department's position that this upper basin amendment is so much different than what was originally developed that we must have an opportunity to study and comment on it before we can endorse it.

(Shake): The document that Ron prepares will describe where we are on the upper basin amendment, and the decision on the amendment would be at the following meeting.

(Bulfinch): If this amendment is rewritten substantially to come into agreement, will the legal procedure be for public commenting again before adoption?

(Shake): My experience is that you incorporate comments and adopt it.

(Iverson): What you're describing Kent is a never ending spiral. Forrest suggests that it will be so different from the original draft that the EA won't apply.

(Wilkinson): I suggest that the product produced by KRFRO will be as final as possible.

(Holder): I think that this gets at the question of can we outline what our procedural steps are and when we'll take them. I suggested having an outline of comments but also an outline of the steps needed and when milestones are set, to let people know what to expect.

Agenda item 14: Presentation of Pine Creek restoration by Hoopa Valley Tribe.

(Bob Franklin): There is substantial timber harvest on the reservation each year which requires much planning and review. We're incorporating no-cut buffer zones and other measures to protect the aquatic ecosystem. We are also forced to deal with past timber harvest practices which continue impacting the system. We have old roads that are still contributing sediment. Our work in Pine Creek is to monitor juvenile fish populations as well as sediment yield. We trap juvenile outmigrants and verify numbers with dive surveys.

(Ken Norton): (Norton gave a slide presentation on the Pine Creek Watershed.) The Pine Creek watershed is reflective of other watersheds on the reservation. We chose 10 monitoring sites and we're monitoring gravel conditions in these spawning areas. We've chosen representative areas throughout the stream. One tool we have is to monitor bedload movement by a transect profile program to monitor movement through time. Pine Creek has had multiple entries for timber harvest. It has an extensive road system, we're seeing timber management that took timber from riparian areas. Culvert placement is also impacting fish habitat. Not only the timber harvesters, the tribal members are concerned about loss of fish habitat.

(West): Does the Hoopa Tribe have protection regulations?

a: Yes, we're also constrained by the NEPA process.

(Farro): Does the Hoopa timber harvest program have an independent review process to prevent negating restoration monies being spent in the Pine Creek watershed? What's the planning process?

(Norton): We are in a constant flux of dealing between departments within the tribal government.

(Orcutt): Some of the photographs shown were taken in the 1960's. Prior to that the BIA was managing timber harvest. We have improved harvest requirements which include increased buffer strips, proper sized culverts, and we're addressing some of the problems identified in our 1990 watershed survey which was funded by this Task Force. Timber management is moving toward protecting the watershed.

(West): The practices shown in the photo, are they historic?

(Orcutt): Some were.

(Norton): This presentation was to show that damage has occurred and that we're trying to make improvements.

(Stokely): I assume the fisheries department identifies specific areas needing special protection. Who is responsible for making sure these protective measures are enforced?

(Orcutt): Interdepartmentally we perform on the ground inspections after timber harvests to see what worked and what didn't'.

Agenda item 25: Presentation of Bureau of Land Management Fisheries Program.

(Jim Decker): I'm out of the U.S. Bureau of Land Management (BLM) Sacramento State office. Throughout the State of California, BLM is using an ecosystem approach for fisheries habitat management and is using ecosystem health as a measure of restoration work. We also want to keep everyone involved. (Decker gave a slide presentation of recent habitat restoration work in other watersheds in California.) On BLM lands we have problems similar to all other places -- roads, fire, timber harvest, and others. One of BLM's goals with ecosystem management is to ensure there are plenty of young and adult fish, wetland species, and to educate the public. We're also developing a restoration plan for Grass Valley Creek. There is no quick fix for this watershed. Revegetation is key.

Meeting Adjourned for the day.

10-06-93

Reconvene meeting, review assignments.

(Shake): Nat was to convene the budget subcommittee to identify projects for submittal to ERO for funding consideration.

(Bingham): We'll try to schedule a future meeting date while here today.

Agenda item 20: Annual program accomplishment report.

(Alcorn): This year's report marks the third annual report on Task Force accomplishments. For three years now we have described the status of the restoration program using the long range plan as a measuring stick. Our report two years ago involved analyzing each policy objective and a brief description of what was being done to accomplish them. The first report covered the time period from FY1989 (the first year of project funding) through FY1992, with 1992 projects yet to be implemented. Last year's report which was distributed to the public in early 1993, was broken into three sections: I) a synopsis of accomplishments, by restoration category, II) a synopsis of recommendations made by all cooperators from FY1989 through FY1992, and III) a literature review of long-term environmental parameter monitoring techniques and existing data sets. The draft report before you today, once again, analyzes policy objectives contained in the plan. Now, after three years of looking at the long range plan objectives, we have found

that many objectives have not been addressed, nor are there specific attempts to achieve these objectives. Our recommendation is to assign staff, a committee, or the TWG to look closely at the objectives that have not been addressed, to develop a findings for Task Force consideration. (Alcorn showed overhead displays of each policy objective that has not been addressed for three years.)

[The Task Force discussed staff's recommendations and determined that further analysis by subcommittee would be necessary before completion of the report.]

(Holder): I suggest that KRFRO or the TWG review this list of objectives that have been identified by staff, and develop a recommendation for achieving them for our consideration.

(Shake): The items identified by staff are the objectives that have not been addressed adequately. The question is how should we analyze this information.

(Rohde): Objective 7.3 indicates that subcommittees will be assigned to each section of the long range plan to evaluate accomplishments. We (the TWG) do not want to do it.

(Shake): How about volunteers? Hearing none, Barbara will chair the subcommittee, KRFRO staff will assist her, and get someone else to help. I think it's important to look at these things that have been identified.

Agenda item 21: Status of the long term needs list.

(Alcorn): We were assigned the task of compiling a list of projects recommended by each member on the Task Force, that could be considered when windfall funding is available. This list was to be forwarded to the TWG for review and development of a final list for Task Force endorsement. So far, we've only received a response from one Task Force member -- CDFG. We will forward this list of projects to Bob Rohde for TWG consideration.

(Harvey Reading): The Siskiyou RCD submitted 5 proposals which were funded by CDFG in one blanket grant. The Department requests that the Task Force consider these projects as a non-federal funds match.

*** Motion ***

(Bingham): I move that these proposals be accepted as a non-federal match.

(Wilkinson): Not prepared to discuss, I'm trying to find it

Motion carried. (Oregon representative abstained.)

(Iverson): We've gotten one response on the long term restoration needs list, so before we send things to the TWG, are we going to get anything else?

(Holder): The USFS will get something to you.

(Shake): I encourage other Task Force members to get a response to KRFRO in one week.

Public Comment:

(Felice Pace): In the report there were a number of things that I have some comment on that need clarification. Regarding water allotments and water rights there are water rights held by the USFS and the CDFG also has water allotments rights that exists that have been enforced, specifically relating to reasonable use. The appropriate place for these actions would be with the

CRMPs. Doug also said in his report that mining workshops have not occurred, but the salmon river CRMP has put on a mining workshop. Regarding the CRMP process, there are some things that the Task Force and member agencies can do but shouldn't rely on the CRMP to do. I'm worried that agencies dump things on the CRMP. The Salmon River Restoration Council won't advocate more regulation on mining, nor will the Scott Valley CRMP promote watermaster service because it will cost them money. The Task Force is justified in relying on these kinds of efforts but can't rely solely on CRMPs.
Regarding the money that we anticipate coming down from the ERO, we heard that it will have a fast track in creating jobs, similar to Clinton's stimulus package. What's the relationship between the ranked list and the decisions to be made by the budget subcommittee?

(Bingham): It would seem reasonable that the subcommittee would work off of the ranked list to a point where technical acceptability falls off. The judgement call might be on that list. There are other tasks that might be added in.

Agenda item 27: Report on TWG activities.

(Rohde): I'm on the agenda to describe my progress on GIS and key watershed work. We were directed in July to investigate the impact of hatchery fish on wild populations. I provided a written report to you (Attachment 9). (Rohde read the report). It's not that we recommend that the Task Force take on this particular area we were directed to investigate. In order to do this, I felt we needed more expertise. This is a list of things needed to be done, but will need lots of money, and it's up to the Task Force to determine the importance of this issue. There may be components of it, say, in the literature review, that could help bring us up to speed without investing lots of resources. This is for the Task Force to decide. From our perspective our efforts were to respond to your directive. We don't anticipate spending additional TWG time to go beyond this point until directed by the Task Force. We also noted some topics that need evaluation as well: genetic mixing, productivity throughout the system, juvenile location, carrying capacity, etc. There was no mitigation for spring chinook or sockeye salmon as a result of construction of dams.

At the last Task Force meeting, Forrest Reynolds indicated that he wanted his GIS specialist to participate. Mr. Viesze and others were invited. Since the last Task Force meeting the chair has sent a letter to the director of the National Ecology Research Center (NERC) in Fort Collins, Colorado. The chair suggested that we table my immediate use of $16,000 to give time for developing a GIS proposal later. I mentioned in my earlier research that we're working on GIS capabilities. I felt that NERC might help us because they have a large facility with over 150 scientists and a full blown GIS lab and remote sensing capability. They had worked on large projects such as the upper Mississippi, Columbia, and Trinity Rivers. NERC attended our meeting. Each of the GIS specialists gave a briefing on what they were working on. Viesze is working on 1/100k scale Environmental Protection Agency's reach file system for the entire state of California, including the Klamath River basin from the Oregon border. Tex Lee from U.C. Davis is working to help water users in Tule Lake to resolve some of their problems. He was interested to work with us. Jan Dirksen of Kier Associates is working on a database for the Shasta River.

Duane Asherin updated us on the National Biological Survey (NBS). They want to work with us as they move into the new NBS agency. They want to work out a relationship with the Task Force in assisting us in developing a GIS. Duane recommended that the Task Force should send a letter to the Secretary of Interior requesting assistance from the NBS. Asherin said that the Secretary of Interior has placed $500,000 for the Klamath-Trinity system. Duane suggested that we draft a letter indicating we would like assistance from the

NBS, specifically identifying the coordination effort with NERC and a fisheries center in Seattle. They're working on the Columbia River projects which are applicable to our situation here. So if money is appropriated by Congress the new deputy and director of NBS will be alerted that these are the entities that would be appropriate to work with. Then the TWG and Duane indicated that it would be appropriate to identify specific types of projects we would like assistance for. The TWG will have a meeting Oct 26 to look closer at specific projects and funding assistance the TWG would like access to. It was the consensus of group that specific funds should be identified for a coordinated information system. The system should be readily available for restoration planning. Our hands are tied now, no immediate access to information to make educated decisions on priority needs. Like the literature review in the yearling release assignment, we need to initiate a way to get information to make effective decisions. We're taking on greater responsibility to identify needs, but we have no resources. Specific funds need to be targeted for this GIS system. I have a draft letter to Interior, and copies have been handed out to you. (Rohde read the letter.

Earlier this year the TWG directed me to come up with a GIS hydrologic layer for the Klamath Basin. I was asked to identify information for that layer, i.e. watershed inventory, fish population status, etc. I began to identify what information existed. Paul Veisze recommends the 1/100,000 scale EPA Reach File System. I think a useful scale is 1/24,000. The USFS presently has a GIS layer at 1/625,000 scale for sections of the Klamath National Forest. This map is a good example of where we want to go for the whole basin. The next step is to tie these areas where this type of information exists, via database, for use by the TWG. We can have KNF staff educate us on this map, and begin to identify specific areas needing immediate work. The California Department of Forestry (CDF), in response to changes in the California Forest Practice Act, has put on contract the development of GIS for California that identifies watersheds. Outside of federal agency jurisdiction we could turn to CDF to access their layer of watersheds. We could then begin to develop an additional layer for the Shasta and Scott and other rivers. I haven't developed a specific proposal yet, but am making headway. I haven't spent any money yet. I feel like we're developing and identifying ways in which Task Force and non-Task Force members can coordinate efforts, which was an original goal of the Klamath Act. We will reach a point where we may need specific funds available to develop a basin wide map. NERC has offered to make us maps with their existing resources. I prefer to wait to meet again with the TWG before I'm obligated to develop a proposal to bring back to the Task Force.

(Holder): President Clinton's plan for the Northwest has a detailed GIS and can be factored into your deliberations.

(Rohde): I would like to complete the presentation, I was also asked to look into key watersheds. The TWG identified critical watersheds. The second day of our meeting I gave a slide presentation showing visual representation of what the entire basin looks like, except for the area above upper Klamath Lake. I invited the CRMP coordinators to give us their added perspective. We spent the whole day talking. By 5:30 pm, I decided to table the discussion of key watersheds. As mentioned, we need access to detailed information to go beyond where we are now.

(Wilkinson): I would like to keep the hatchery interaction issue alive. My original question was "is it reasonable to think that early releases have impacted wild stocks?" We have some information indicating there might be some impact. Was our data available to you?

(Rohde): Not at the time.

(Wilkinson): I would like the TWG to continue working on this item and report at our next meeting.

(Joe Polos): Our office has conducted juvenile monitoring on the Klamath River since 1988. We collected information on things such as timing of hatchery releases.

(Shake): But you've not had a chance to analyze the data?

(Polos): It's almost done.

(Shake): I think Keith's idea is good to keep this as an assignment to the TWG.

(Reynolds): I agree with Bob Rohde that the task we've given the TWG are becoming excessive for their limited resources. I can see keeping that as an issue, but I suspect that we'll find that they need substantially more information to make good recommendations.

(Bulfinch): I agree with Keith to keep this study open. The focus is more on hatchery operation. One problem that we're aware of at Iron Gate Hatchery is that, instead of releasing fish to mimic their natural timing, they must be released when water conditions allow their survival. We should invite PP&L to the table and help them help us define and stabilize the problems.

(Bingham): Bob, you've identified three tasks that you feel need to be accomplished. Did you think about dollar amounts or who might do these things?

(Rohde): We thought that would be a topic at our next meeting. We need to meet soon to prioritize what our needs are. We want to see some restoration efforts happening, and don't feel we have financial resources to get them done. This subject is likely to be part of that discussion, how much money is needed, funding sources, etc.

(Bingham): I would like to work with you to coordinate your needs with the committee identifying tasks for the ERO funding. I'll defer to the Chair whether we can hold off long enough.

(Shake): Steve Lewis, how much time do we have to get this list of projects back to you?

(Lewis): We're putting projects together this week. Reclamation will go back to D.C. in October to present their needs. I understand that these are to be on-the-ground projects.

(Bingham): some of the things recommended are field investigations, would that fit into the parameters?

(Lewis): We still consider surveys if they can be done by displaced timber workers. If it's giving our people more work it may not fit.

(Bingham): Maybe you can meet with us.

(Lewis): Ok.

(Reynolds): Regarding funding, would projects done by the CCCs a youth employment organization, would they qualify?

(Lewis): We're looking at putting people to work. Sounds like it would fit.

(Shake): Let's take care of the TWG recommendations -- what to do with hatchery evaluation. Keith suggested continuing their work with the USFWS office in Arcata. I suggest we ask them to continue, getting update next meeting.

(Pierce): If all we'll do is get information from Arcata and report on it, why can't we just get a report from the USFWS directly to the Task Force?

(Shake): That's one of three items the TWG identified. The other parts are needing development, more specifics.

(Rohde): It's only one part of one piece.

[Consensus to have TWG continue their work.]

(Shake): Regarding GIS, we like the letter let's go ahead and prepare it for signature. There were some follow up things you were going to do, so continue on. The final one, key watersheds, you'll address at your next meeting, right?

(Rohde): Yes.

*** Motion ***

(Bulfinch): I move that we invite Pacific Power and Electric Company to participate in the TWG meeting on hatchery/wild interaction, to provide information on the operation options of Iron Gate Hatchery.

Motion carried.

Next meeting scheduled for January 18-19, 1994 in Eureka, followed by April 19-20, 1994 in Brookings, Oregon.

Public comment:

Jim Welter: At the October 26th TWG meeting I will volunteer to give a presentation on flows and escapement, and mitigation.

(Shake): Fine, plan on attending the meeting. Nat suggested the budget subcommittee convene after joint session.

Meeting adjourned.

Others Present:

Doug Alcorn	U.S. Fish and Wildlife Service
Randy Brown	U.S. Fish and Wildlife Service
Chip Bruss	U.S. Bureau of Reclamation
John Crawford	Klamath Basin Water Users Protective Assoc
Bob Davis	U.S. Bureau of Reclamation - Klamath Proj.
Jim Decker	U.S. Bureau of Land Management
Bob Franklin	Hoopa Valley Tribe
Ron Garrett	U.S. Fish and Wildlife Service
Paul Hubbell	CDFG
Ron Iverson	U.S. Fish and Wildlife Service
Dorothy Kandra	
Chuck Lane	U.S. Fish and Wildlife Service
Steve Lewis	U.S. Fish and Wildlife Service
Elwood Miller	Klamath Tribe
Kenny Norton	Hoopa Valley Tribe
Felice Pace	Klamath Forest Alliance
Joe Polos	U.S. Fish and Wildlife Service
Mike Rode	CDFG

Mike Ryan	U.S. Bureau of Reclamation - Klamath Proj.
Mary Taylor	
Beverly Wesseman	U.S. Fish and Wildlife Service
Jack West	U.S. Forest Service - Klamath Nat. Forest
Jim Welter	KMZ Fisheries Coalition
Dave Zepponi	Klamath Basin Water Users Protective Assoc

(Also attended by members of the Klamath Management Council.)

FINAL AGENDA
FOR THE MEETING OF THE
KLAMATH RIVER BASIN FISHERIES TASK FORCE
OCTOBER 5-6, 1993, HOOPA, CALIFORNIA

Revised 10/1/93

Oct 5, 1993:

8:00 am Convene meeting; opening remarks, introductions.

1. Discussion/adoption of agenda.

2. Correction/approval of minutes from June, 1993 meeting.

8:15 3. Final work plan for FY1994 – clarification. (Iverson)

8:30 4. State of California work plan for FY1994. (Reynolds)

8:45 5. Report from upper basin ad hoc committee Chair. (Thackeray)

9:15 Break

9:30 6. Effect of the upper basin amendment document on FERC relicensing of Klamath River dams. (Randy Brown - USFWS)

10:00 7. Public comment.

10:15 8. Task Force discussion of upper basin amendment.

10:45 9. Action: Task Force decision on how to proceed with the upper basin amendment document. Set milestone dates?

12:00 Lunch

1:00 10. Amendment of the Trinity River Fish and Wildlife Restoration Act - Applicability to Klamath Restoration Program? (Chuck Lane - USFWS)

1:30 11. An ecosystem approach to conserving biodiversity in the Klamath Basin. (Ron Garrett - USFWS)

2:00 Break

2:15 12. Public comment.

2:45 13. Oregon Natural Resources Council perspective on upper Klamath basin issues. [to be rescheduled]

3:15 14. Presentation of Pine Creek restoration by Hoopa Valley Tribe. (Kautsky - HVT)

3:45 15. Report on coho petition by Pacific Rivers Council. (Pace - KFA)

4:00 16. Public comment

4:30 17. Action: Task Force decision on recommendation by Klamath Forest Alliance regarding the coho petition by Pacific Rivers Council.

5:00 18. Review assignments, adjourn for the day.

5:30 19. Road tour of Pine Creek watershed. (Hoopa Valley Tribal Fisheries Department)

Oct 6, 1993:

8:00 Convene meeting.

8:05 20. Annual program accomplishment report. (Alcorn)

8:30 21. Status of the long term needs list. (Alcorn)

8:45 22. Task Force discussion of staff recommendations.

9:15 23. Public comment.

9:30 24. Action: Task Force assignments to staff, Technical Work Group, or committees to focus on specific policies/objectives.

10:00 Break

10:15 25. Presentation of Bureau of Land Management Fisheries Program. (Jim Decker - Bureau of Land Management)

10:45 26. Presentation of Salmon River spring chinook genetics analysis (Dr. Ken Jones)

11:15 27. Report on TWG activities (GIS development, progress on developing a recommendation for "key" watersheds in the Klamath Basin. (Rohde)

11:45 28. - Review assignments
- Identify future agenda items
- Set date for spring (if necessary) or summer meeting.

Adjourn meeting.

12:00 Lunch

1:00 29. Convene joint session with Klamath Fishery Management Council -- Introductions, cordialities

1:15 30. Welcome by the Hoopa Tribal Chair.

1:20 31. New developments in the DOI - Klamath/Trinity Task Force headed by Betsy Reike (Shake)

1:30 32. Activity updates (Shake and McIsaac)

2:15 Break

2:30 33. Report on Four Chairs meeting (Shake and McIsaac)

2:45 34. Definition and discussion of advisory committee roles:

a. discuss overlap of long range plans
b. identify any areas of conflict
c. resolve areas of conflict
d. discuss May 10 letter from KFMC to Secretaries of Interior and Commerce

4:00 35. Public comment

4:30 Adjourn meeting.

REPORT OF PLANNED FEDERAL FY 1994 ACTIVITIES OF THE CALIFORNIA DEPARTMENT OF FISH AND GAME'S KLAMATH-TRINITY PROGRAM[1/]

BACKGROUND

The Klamath-Trinity Program (KTP) is a unit within the California Department of Fish and Game's, Inland Fisheries Division. The KTP was established in the early 1970's. Its continuing mission is to generate information on population sizes, harvests and life histories of Klamath River basin salmon and steelhead stocks needed to manage these resources and the fisheries operating on them.

The KTP is made up of five field research projects, plus a sixth, administrative project. It is staffed by 21 permanent, full-time professional and technical personnel, plus (in State FY 1993-94) 28.0 person-years of temporary help. Permanent personnel are variously headquartered in Arcata (7), Weaverville (7), Yreka (3) and Sacramento (4).

While information generated by the KTP serves the Klamath River Fisheries Task Force in achieving many, if not most, of the goals stated in the January, 1991, "Long Range Plan for the Klamath River Basin Conservation Area Restoration Program", data produced appear to most directly address three of the Objectives. These are:

> Objective 4: Strive to protect the genetic diversity of anadromous fishes in the Klamath River Basin;
>
> Objective 5.A: Iron Gate Hatchery and Trinity River Hatchery should be operated to produce salmon and steelhead to mitigate for the losses of habitat above their dams and at the same time strive to reduce impacts on native fish: and,
>
> Objective 5.B: Small-scale rearing programs should be temporary measures, primarily for the purpose of accelerating the rebuilding of locally adapted native salmon and steelhead populations and operated to maintain the genetic integrity of such populations. Ideally, small scale rearing programs should be operated in conjunction with habitat restoration projects.

1/ Prepared by Paul M. Hubbell, California Department of Fish and Game, Inland Fisheries Division. Presented to the Klamath River Fisheries Task Force at its October 5-6, 1993, meeting at the Neighborhood Facilities Building, Hoopa, California.

PLANNED FEDERAL FY 1994 ACTIVITIES, BY PROJECT

The following is a summary of major activities currently planned for execution by KTP projects during Federal FY 1994 (October 1, 1993 - September 30, 1994):

Klamath River Project

- Determine the size of the fall 1993 angler catch of returning chinook and coho salmon and steelhead in the Klamath River, from its mouth to the falls at Coon Creek (River Mile 34).

- Determine, by species, the age, length and marked fish compositions of that catch.

- Determine the fall 1993 angler harvest of returning fall chinook salmon, and the age, size and mark compositions of the catch in the balance of the Klamath River system above the falls at Coon Creek (excluding the Trinity River basin).

- Determine the size, timing, distribution, and length, age and mark compositions of fall chinook salmon spawner escapements in the Klamath River system upstream of Weitchpec (excluding the Trinity River basin) in fall 1993.

- Mark (adipose [Ad] fin clip plus coded-wire tag [CWT]) representative groups of 1993 brood year (BY) fingerling and yearling chinook salmon produced at Iron Gate Hatchery (IGH) prior to their release, as part of continuing evaluations of the contributions to the fisheries and spawning escapements made by IGH.

- Determine the mark/tag compositions of chinook salmon spawners returning to IGH in fall 1993, as part of continuing evaluations of the contributions to the fisheries and spawning escapements made by IGH-produced chinook salmon.

Trinity River Project

- Determine the size, timing, distribution, and length, age and mark compositions of 1993 chinook and coho salmon and steelhead runs in the Trinity River basin.

- Determine the 1993-94 season angler harvest of adult chinook and coho salmon and steelhead in the Trinity River basin.

- Mark (Ad+CWT) representative groups of 1993 BY fingerling and yearling chinook salmon and BY 1992 yearling+ coho salmon produced at Trinity River Hatchery (TRH) prior to their release, as part of continuing evaluations of the contributions to the fisheries and spawner escapements made by TRH-produced salmon.

- Determine the length, age and mark/tag compositions of chinook and coho salmon spawners returning to TRH in fall 1993, as part of continuing evaluations of the contributions to the fisheries and spawning escapements made by TRH-produced salmon.

Trinity Fisheries Investigations Project

- Determine, through a system of spawning ground surveys, the 1993 distributions of naturally spawning chinook and coho salmon in the main stem Trinity River and its tributaries upstream of and including the North Fork Trinity River, and determine the size and sex composition, incidence of marked/tagged individuals and incidence of pre-spawn mortalities among spawners in the survey area.

- Capture, mark (Ad+CWT) and release, in spring 1994, representative groups of naturally produced 1993 BY chinook salmon fry/fingerlings in the main stem Trinity River, for use in subsequent determinations of their survival and contributions, as adults, to the ocean and river fisheries and spawning escapements.

- Fin clip all 1992 and 1993 BY steelhead produced at TRH and scheduled for spring 1994 release, as part of continuing evaluations of the contributions to the fisheries and spawner escapements made by TRH-produced steelhead.

South Fork Trinity River Project

- Determine the size, composition, distribution and timing of the 1994 adult spring chinook salmon run in the South Fork Trinity River (SFTR) basin.

- Determine the angler harvest of spring chinook salmon in the SFTR basin during the 1993-94 season.

- Continue investigations directed at determining the life history patterns of spring chinook salmon produced in the SFTR basin.

Natural Stocks Assessment Project

- Determine the size, composition, distribution and timing of 1993-94 season adult steelhead runs in the SFTR basin.

- Determining the angler harvest, during the 1993-94 season, of adult steelhead in the SFTR basin.

- Continue investigations directed at determining the life history patterns of steelhead produced in the SFTR basin.

- Continue investigations directed at describing seasonal use patterns by juvenile steelhead of various habitat types within selected SFTR tributaries, and defining relationships between habitat parameters and seasonal variations in juvenile steelhead standing crops in these areas.

- Continue, in Federal FY 1994, ongoing investigations directed at defining, on the basis of scales analysis, the age and size compositions of naturally spawning chinook salmon returning to selected Klamath River tributaries, and the size and age at ocean entry, and other juvenile life history characteristics of the returning spawners.

- Continue investigations directed at determining the contributions to the fisheries and spawning escapements made by naturally produced chinook salmon captured, marked (Ad+CWT) and released in selected Klamath River tributaries (excluding the Trinity River basin).

- Continue investigations directed at determining scale pattern characteristics best suited for distinguishing between natural and hatchery salmonid stocks in the Klamath-Trinity basin.

- Continue year-round investigations directed at: Determining the use of the Klamath River Estuary by juvenile salmonids, including seasonal patterns of entry, abundance, residency, growth, food abundances and preferences, and sizes at and times of ocean entry; describing, by season, general water quality parameters in the estuary; quantifying and ranking, by relative use by juvenile salmonids, various habitat types occurring within the estuary.

- Continue investigations directed at quantitatively describing salmonid spawning habitat, and assessing juvenile summer pool rearing habitat, in selected areas of the Klamath River basin.

Research Planning/Supervision Project

- Continue to provide, in Federal FY 1994, required supervision and administrative oversight to Klamath-Trinity Program research projects, and necessary intra- and inter-agency coordination of program activities.

- Continue, in Federal FY 1994, to provide technical and editorial support to the research projects, as needed, to insure that results of the various investigations are made available to managers and scientists of the California Department of Fish and Game and other interested parties.

1993/94 Fishery Restoration Grant Proposals
Submitted to Inland Fisheries Division
for the Klamath River Basin
that Received Funding Approval by the Dept. of Fish and Game

CDFG Prop. Numb.	USFWS Proj. Numb.	Contractor	Stream	Project Title	Project Description	Funding Source	Amount Approved
5	E-05	Kidder Creek Outdoor School Etna Elementary School	Kidder Creek	Kidder Creek Restoration Project	Continue to implement a restoration project including a tree planting program on Kidder Creek and educate students and our adult community of habitat requirements and the economic and cultural importance of our salmon population.	S/S	2500
31	HR-02	USFS Klamath National Forest, Happy Camp R.D.	Indian Elk Creeks	Indian & Elk Creek Riparian Habitat Restoration #1	Provide conifer & deciduous cover within the riparian management zones that may have a greater chance of surviving a large flood events.	WCB	15268
32	HR-18Z	USFS Klamath Natl Forest, Salmon River R.D.	Kenaka Crapo Little NF	Salmon River Sub-Basins Riparian Planting Project	Plant riparian species in areas along a number of different streams that support chinook & steelhead. The riparian planting will eventually provide shade and cover and will increased bank stabilization.	WCB	16300
34	HR-19	USFS Klamth Natl Forest, Salmon River R.D.	SF Salmon River	SF Backwater Pool w/Cover Structure	Increase winter rearing and post-emergency habitat for juvenile steelhead and Chinook fry in the SF Salmon River.	P-70	2650
46	HR-26	Siskiyou Resource Conservation Dist.	Scott River	Scott River Streambank Protection-Walter Hansen Ranch	Install large rock riprap, fence area to restrict livestock access to riparian zone, and plant trees and shrubs to provide both reduced sediment from streambank erosion and develop riparian vegetation for stream shading.	P-70	0

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CDFG Prop. Numb.	USFWS Proj. Numb.	Contractor	Stream	Project Title	Project Description	Funding Source	Amount Approved
47	HR-27	Siskiyou Resource Conservation Dist.	Scott River	Scott River Streambank Protection-Mark Hurlimann	Install large rock riprap, fence area to restrict livestock access to riparian zone and plant trees and shrubs to provide both reduced sediment from streambank erosion and develop riparian vegetation for stream shading.	P-70	0
48	HR-28	Siskiyou Resource Conservation Dist.	Scott River	Scott River Streambank Protection-Rancho Del Sol	Install large rock riprap, fence area to restrict livestock access to riparian zone, and plant trees and shrubs to provide both reduced sediment from streambank erosion and develop riparian vegetation for stream shading.	P-70	0
49	HR-29	Siskiyou Resource Conservation Dist.	Scott River	Scott River Streambank Protection - Black Ranch	Install large rock riprap, fence area to restrict livestock access to riparian zone, and plant trees and shrubs to provide both reduced sediment from streambank erosion and develop riparian vegetation for stream shading.	P-70	0
50	HR-30	Siskiyou Resource Conservation Dist.	Scott River	Scott River Streambank Protec.-Pastures of Heaven Ranch	Install large rock riprap, fence area to restrict livestock access to riparian zone, and plant trees and shrubs to provide both reduced sediment from streambank erosion and develop riparian vegetation for stream shading.	P-70	0

1993/94 Fishery Restoration Grant Proposals
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CDFG Prop. Numb.	USFWS Proj. Numb.	Contractor	Stream	Project Title	Project Description	Funding Source	Amount Approved
51	FP-13	Siskiyou Resource Conservation Dist.	Sugar & French Creeks	Student Built Fish Screens on Scott River Tributaries	Students from Etna High School will research, design, fabricate, install monitor and maintain two fish screens on Sugar Creek and one on French Creek both tributaries to Scott River.	WCB	10527
52	FP-11	Dept. of Fish and Game	EF Scott River	Hayden Diversion Ditch Screen	Screen existing open agriculture/stockwater diversion ditch to prevent the loss of juvenile and adult steelhead and juvenile chinook & coho salmon.	P-70	2562
53	FP-12	Dept. of Fish and Game	Etna Creek	Etna Creek Diversion Screen	Screen an existing open agriculture/stockwater diversion ditch to prevent the loss of juvenile and adult steelhead.	WCB	2562
54	FP-09	Dept. of Fish and Game	Grider Creek	Grider Creek Diversion Screen	Screen an existing open agriculture/stockwater diversion ditch to prevent the loss of juvenile and adult steelhead and chinook salmon.	P-70	2562
110	HR-03	USFS Six River National Forest, Orleans R.D.	Red Cap Creek	Red Cap Creek Instream Habitat Enhancement	Increase quality and quantity of instream habitat for fall run chinook salmon and summer & winter run steelhead in Red Cap Creek, Klamath Basin.	WCB	24100
111	HR-04	USFS Six Rivers National Forest, Orleans R.D.	Bluff Creek	Bluff Creek-Dragon Area Instream Habitat Enhancement	Increase the quality and quantity of instream habitat for fall run chinook salmon and summer and winter run steelhead in Bluff Creek, Klamath Basin.	WCB	18700

1993/94 Fishery Restoration Grant Proposals
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CDFG Prop. Numb.	USFWS Proj. Numb.	Contractor	Stream	Project Title	Project Description	Funding Source	Amount Approved
137	HR-01	CCC Calif. Conservation Corps, Del Norte Center	Tectah Creek	Tectah Creek Salmon & Steelhead Habitat Restoration Proj	Design & construct instream structures at 12 sites in the lower 2 miles of Tectah Creek by placing rootwads, logs & large woody debris to create scour pools, deepen existing pools, provide pool and edgewater cover and high water refuge habitat.	WCB	48049
149	HR-38	Dept. of Fish and Game, Yreka Fish Habitat Shop		Temporary Help for the Yreka Fish Habitat Improvement Sh	Provide additional manpower time to the Yreka Fish Habitat Improvement Shop.	P-70	31118
151		Siskiyou Resource Conservation District	Scott River	Scott River Streambank Protection	Proposals 46-50 are grouped together here in 1 record to show the amount approved by the S/S Committee was for these 5 projects, although actual site(s) are to be determined by DFG & SRCD. Actual work may not include all sites as listed in proposals.	P-70	50000
*** Total ***							226898

1993/94 Fishery Restoration Grant Proposals
Submitted to Inland Fisheries Division
for the Klamath River Basin
that Did Not Receive Funding Approval

CDFG Prop. Numb.	USFWS Proj. Numb.	Contractor and Project Title	Stream	Why Project Was Not Funded	Project Description	Amount Requested
33	E-03	USFS Klamath Natl Forest Salmon River R.D. Klamath Basin Fisheries Seminars	Mid-Klamath Tributaries	(no funding available)	Conduct 5 public information/education seminars to discuss Klamath River Basin fish species, habitat requirements & life history. A portable cold water aquarium would be used to enhance the discussion.	1403
39	FP-16	BioSystems Analysis, Inc. Egg Survival of Fall-Run Chinook Salmon in Klamath Basin	Scott River Salmon River	Reject-Study sent to KRTF	Quantify chinook salmon egg survival in two tributaries of the Klamath River.	52532
55	FR-05	Art Frazier Hammel Creek Hatching/Rearing Project	Hammel Creek	(no funding available)	Boost production of fall chinook through bio-enhancement, within the Salmon River sub-basin particularly in tributaries where fall chinook numbers appear depressed or far below the stream's known carrying capacity.	12032
56	FR-06	Robert Will Little North Fork Chinook Hatching/Rearing Project	Little NF of NF Salmon R.	(no funding available)	Boost production of native fall chinook through bioenhancement within the NF Salmon River sub-basin particularly in North Fork Salmon River tributaries where fall chinook numbers appear depressed or far below the stream's known carrying capacity.	26885
63	E-07	Salmonid Restoration Federation 1994 Calif. Salmon, Steelhead & Trout Restoration Confer	N/A	(no funding available-rec'd $3,000 Fed.)	Improve the effectiveness of salmon, steelhead and trout fisheries restoration contractors.	5000
136	FR-01	CCC Calif. Conservation Corps, Del Norte Center Lower Klamath Salmonid Rescue Project	Hunter AhPah Terwer etal	(no funding available)	Rescue naturally produced juvenile salmonids from reaches of lower Klamath tributaries experiencing seasonal loss of surface flows and transport to suitable, under-seeded habitat within the same watershed. No fish rearing will take place.	26112

1993/94 Fishery Restoration Grant Proposals
Submitted to Inland Fisheries Division
for the Klamath River Basin
that Did Not Receive Funding Approval

CDFG Prop. Numb.	USFWS Proj. Numb.	Contractor and Project Title	Stream	Why Project Was Not Funded	Project Description	Amount Requested
*** Total ***						123964

State of California **Resources Agency**

M E M O R A N D U M

To : Forrest Reynolds **Date :** 3 September 1993

From: **Department of Fish and Game**

Subject: Request for Klamath River Task Force Project Information

Per your request, I contacted Ron Dotson to get a list of Yreka Fish Habitat Improvement Shop projects funded for FY 1993/1994 with money administered through the Klamath River Task Force. The following is a list of those projects:

Description/Location	Source	Amount	Pro. No.
Gravel placement in Bogus Creek [redacted]	Prop 70	Labor Only	?
Grider Cr Diversion Screen 1/	Prop 70	$2,562	54
Hayden Ditch Screen (Scott Valley) 1/	Prop 70	$2,562	52
Temp Help (Mark Elfgren) Yreka Screen Shop 1/	Prop 70	$31,118	149
Etna Ditch Screen 2/	Prop 53	**Pending Approval**	

I hope this will be helpful. Please let me know if you have any questions.

Mark Pisano,
Associate Fishery Biologist
Klamath River Project

cc: Paul Hubbell, IFD

1/ This item is included in the accompanying list of projects that were approved for funding by the California Department of Fish and Game.

2/ The Department has submitted this project to the Wildlife Conservation Board for funding. The Board, as of October 5, 1993, has not yet acted. If the Board does not approve the project, the Steelhead Catch - Restoration Card Subcommittee has said that they will recommend Steelhead Card funding for it.

ATTACHMENT 3

KLAMATH FISHERY RESTORATION PROGRAM
FEDERAL WORK PLAN, FISCAL YEAR 1993

files: fedwp.dbf, fedwp93.qry, fedwp93.frm

PROJECT NUMBER	COOPERATOR	LOCATION	PROJECT DESCRIPTION	COST	COMMENT
** CATEGORY: Education					
E- 2	USFS Six Rivers NF, Orleans Dist	Lower Klamath subbasin	Public fisheries education through nonconsumptive enjoyment.	2750	Project objective: Provide educational experiences which enhance understanding, stewardship and nonconsumptive use of our local fish resources. Findings: None reported yet. Agreement history: Agreement signed 8/31/93.
E- 3	Calif Sal, Sthd & Trt Rest. Fed.	Klamath Basin	11th Annual Conference.	3000	Agreement history: Conference held March 18-21, 1993. Final report received and invoice paid.
E- 6	Fisheries Focus - Paula Yoon	Klamath Basin	Portable information display for upper Klamath watershed.	8350	Project objectives: Develop an informational display on the upper Klamath River in order to: 1) clearly explain the goals and objectives of the Klamath Restoration Program to the general public, 2) show how these goals and objectives are being met with appropriate photographs, and 3) increase the public's understanding of the restoration program. Contract history: Order for services has been sent to contractor.
E- 8	Fisheries Focus - Paula Yoon	Klamath Basin	Klamath River Field Trip	500	Task Force approved at meeting on 6/16/93. Order for Services issued and trip held 7/6-10/93. Invoice received and paid.
E-10	Great Northern Corporation	Shasta River subbasin	Salmon Education Community Workshop	2500	Agreement history: Amendment to existing FY93 agreement signed 9/3/93. Workshop planned for Fall 1993.
E-11	Siskiyou Resource Conservation Dist	Scott River subbasin	Salmon Education Community Workshop	2500	See comments for project 93-E-13. Agreement history: Amendment to FY93 agreement signed 9/2/93. Workshop planned for Fall 1993.
E-12	USFWS Klamath River FRO	Middle Klamath subbasin	Salmon Education Community Workshop	0	See comments for project 93-E-13. Agreement history: Proposed amendment to existing agreement with the Karuk Tribe was declined.
E-13	Hoopa Valley Tribe	Klamath Basin/Hoopa Square	Salmon Education Community Workshop	2500	Project objectives: Increase the public's understanding of the value of anadromous fish and gain local support for agency and tribal restoration efforts by holding community workshops. LRP policy 6.2.d and 6.2.g Findings: None reported yet. Agreement history: Amendment to existing FY92 agreement with the Hoopa Valley Tribe is being processed. Workshop planned for Fall 1993.

KLAMATH FISHERY RE[illegible]TION PROGRAM
FEDERAL WORK PLAN, [illegible] YEAR 1993

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PROJECT NUMBER	COOPERATOR	LOCATION	PROJECT DESCRIPTION	COST	COMMENT
E-14	USFWS Klamath River FRO	Lower Klamath subbasin	Salmon education community workshops.	0	See comments for 93-E-13. Agreement history: Proposed amendment to existing agreement with NCIDC was declined.
E-15	USFWS Klamath River FRO	Basinwide	Klamath Symposium	4000	Project objective: Inform the public about the value of anadromous fish and gain local support for the restoration program by holding an educational forum and festival. Findings: None reported yet. Agreement history: Amendment to FY92 agreement with Hoopa Tribe is being processed to partially fund the Klamath Symposium with FY93 funds. Amendments to FY93 agreements with Siskiyou RCD, Great Northern, and Klamath Forest Alliance are being processed to provide travel expenses for respective representatives to attend the Symposium.
* Subtotal **				26100	
* CATEGORY: Fish Protection					
FP 3	PSMFC	Middle Klamath subbasin	Temporary help for Yreka Screen Shop.	31118	Agreement history: Temporary employee on staff. Final Report due 2-94.
FP- 4	USFWS CA/NV Fish Health Center	Mainstem Klamath River	Health and physiology monitoring of hatchery and natural outmigrating chinook.	14000	Samples collected and being processed in lab. Final report due 2-15-94.
FP- 5	USFWS Coastal California FRO	Mainstem Klamath River	Monitoring of Klamath River yearling juvenile salmonid outmigration.	9000	Big Bar trap last operated on 6/11/93. Many fish (300-400) per day trapped July 15. By end of July, numbers dropped to 20-30 per day. By early August, excessive algae load rendered trap inoperable. Will not be deployed again. Catch of juvenile green sturgeon has shown gradual increase over the years. Final Report due 4-94.
FP- 6	USFWS Coastal California FRO	Klamath Basin	Age composition/scale analysis of Klamath River fall chinook run - 1992.	7350	Project complete. Findings: The 1992 Klamath River fall chinook run consisted of 12,963 jacks (33.3%), 7,249 3-year-olds (18.6%), 17,708 4-year-olds (45.5%) and 985 5-year-olds (2.5%). No 6-year-old chinook were identified from the 1992 scale composition.
FP- 7	USFWS Coastal California FRO	Mainstem Klamath River	Fall chinook spawning escapement survey.	15228	No activity in June '93. Project field work to occur Fall 1993. Agreement history: Final report due 3-94.

KLAMATH FISHERY RESTORATION PROGRAM
FEDERAL WORK PLAN, FISCAL YEAR 1993

files: fedwp.dbf, fedwp93.qry, fedwp93.frm

PROJECT NUMBER	COOPERATOR	LOCATION	PROJECT DESCRIPTION	COST	COMMENT
FP 13	USFS PSW Research Exper. Station	Mainstem Klamath River	Age and growth of Klamath River green sturgeon.	8340	Agreement history: Agreement signed 2/23/93. No effort in June. Information on disk, cooperator will develop growth curves in July.
** Subtotal **				85036	
** CATEGORY: Fish Restoration					
FR- 3	Orleans Rod and Gun Club	Lower Klamath subbasin	Orleans community anadromous fish rearing.	12476	Agreement history: Agreement signed 2/16/93. Approximately 6,000 fish on hand. Cooperator held a volunteer party to complete fencing enclosure.
FR- 6	HCIDC	Lower Klamath subbasin	Yurok Reservation late run fall chinook rearing program.	156873	Agreement history: Agreement signed 7/12/93. Cooperator applied coded wire tags to 38,356 fish in July, and moved them to Hunter C reek. Released 15,108 coded wire tagged, fingerling chinook into High Prairie Creek in July.
FR- 8	HCIDC	Klamath Basin	Middle Klamath chinook rearing pond and broodstock weir construction/operation.	160333	Agreement history: Agreement signed 7/12/93. Approximately 25,000 fish on feed at Camp Creek. Tagged in mid-September. Completed renovation of Camp Creek facility. Weir construction in process.
** Subtotal **				329682	
** CATEGORY: Habitat Protection					
HP- 2	USFS Klamath National Forest	Middle Klamath subbasin	Coarse Woody Debris Survey of Mid-Klamath tributaries.	4800	Agreement history: Agreement signed 8/30/93. Started on tributaries to Indian Creek and other smaller tributaries to be surveyed by mid-August. Most survey data already stored in computer.
HP-13	USFS Klamath National Forest	Salmon River subbasin	Crapo Creek WIN Inventory	16000	Agreement history: Agreement signed 8/30/93. Field work initiated in June.
HP-15	Karuk Tribe of California	Mainstem Klamath River	Water temperature monitoring of the Klamath River mainstem at seven locations.	12740	Agreement history: Modification to 1992 agreement signed 2/18/92. Equipment deployed in June. Final report due 8/95. KRFRO ordered three additional water temperature monitoring units for use in this project.
** Subtotal **				33540	
** CATEGORY: Habitat Restoration					
HR-33	Great Northern Corporation	Shasta River subbasin	Parker riparian fence	41856	Agreement history: Agreement signed 3/1/93.

KLAMATH FISHERY [illegible]ATION PROGRAM
FEDERAL WORK PLA[illegible]AL YEAR 1993

files: fedwp.dbf, [illegible]p93.qry, fedwp93.frm

PROJECT NUMBER	COOPERATOR	LOCATION	PROJECT DESCRIPTION	COST	COMMENT
			construction.		Modification signed 9/3/93 to fund Project 94-HP-08 (Grenada Irrigation District Pulse Flow Project) with FY93 monies. The $400 for the project is included in the new project total. Fence line flagged. Some areas are difficult to fence because of steep topography. Coordinator waiting for landowner's approval of fence location. Will correspond with owners by end of August. Fencing project to be completed by 9/94.
MR-35	USFS Klamath National Forest	Salmon River subbasin	Big Flat slide stabilization	7260	Agreement history: Agreement signed 8/30/93. Rip-rap and slide excavation complete. Project down-scaled. No parking lot resurface work. Cost reduced by $8023.
MR-36	USFS Klamath National Forest	Salmon River subbasin	Native seed collection - Salmon River Drainage.	4544	Agreement history: Agreement signed 8/30/93. Most seed collection to occur in Fall '93.
** Subtotal **				53660	
** CATEGORY: Program Coordination					
PC- 1	Siskiyou RCD	Scott River subbasin	Scott Valley Coordinated Resource Management Plan.	52414	Project objectives: 1) to foster development of, and implementation of, watershed restoration and education projects, 2) to support the Scott River Watershed CRMP process by providing funding for staffing and administrative needs. (Applies to LRP policies 3.7, 7.9) Findings: None reported yet. Agreement history: Agreement signed 3/93. Tasks underway. Modification signed 9/2/93 to increase funding by $28,260 to fund Project 94-PC-02 (Phase II of Scott Valley CRMP) with FY93 funds. This amount is included in the new project total.
PC- 2	USFWS Klamath River FRO	Klamath Basin	Technical/operational support for watershed-based restoration planning.	0	Agreement history: FY93 money deobligated for other work; project will be funded with FY94 funds.
PC- 3	Klamath Forest Alliance - SRCC	Salmon River subbasin	Develop and implement Salmon River Community Restoration Program.	29500	Project objective: Develop Salmon River Community Cooperative Resource Restoration Program Plan/s and implement short term restoration measures by training volunteers to do restoration work in the Salmon River sub-basin. Meets LRP policy 3.1. ("...solicit the support of citizens. Hold training sessions on restoration techniques. Encourage the formation of local restoration groups to "adopt

KLAMATH FISHERY RESTORATION PROGRAM
FEDERAL WORK PLAN, FISCAL YEAR 1993

files: fedwp.dbf, fedwp93.qry, fedwp93.frm

PROJECT NUMBER	COOPERATOR	LOCATION	PROJECT DESCRIPTION	COST	COMMENT
					sub-basins and become advocates for fisheries..") Findings: None reported yet. Agreement history: Agreement signed 5/93. Tasks are underway. Modification being processed to increase project total by $19,625 from FY93 funds to implement FY94 Phase II (94-PC-01), and this is reflected in the above project total.
PC- 5	Great Northern Corporation	Shasta River subbasin	Shasta River CRMP Field Projects Coordinator.	0	Member fencing project: most fence corners are installed, survey of property line complete - holding off on building fence until property owner agrees. Easton fencing project: fencing and planting completed July '93. Flock fencing project: negotiations taking place - new owner involved. Agreement history: Modification signed 9/92, to fund 1993 proposal with 1992 monies.
PC 9	USFWS Klamath River FRO	Klamath Basin	Logistical support for advisory committees, coord. of restoration activities.	390088	Combined with PA-1, which was to administer contracts and cooperative agreements to implement restoration program.
** Subtotal **				471982	
*** Total ***				1000000	

ATTACHMENT 4

KLAMATH FISHERY RESTORATION PROGRAM
FEDERAL WORK PLAN, FISCAL YEAR 1994

files: fedwp.dbf, fedwp94.qry, fedwp94.frm

PROJECT NUMBER	COOPERATOR	LOCATION	PROJECT DESCRIPTION	COST	COMMENT
** CATEGORY: Education					
E-02	Paula Yoon (Fisheries Focus)	Klamath Basin	Eureka High School Klamath River Project	1265	Offer a high school class to students who have been extensively introduced to and studying the Klamath Salmon issue, and who are ready to receive training in producing a quality presentation to take to other high school students. Agreement history: Approved at 6/16/93 TF meeting.
E-04	Klamath Forest Alliance	Salmon River subbasin	Adopt-a-stream stewardship and education program	4480	Educate students in grades 1-8 on importance & intricacy of aquatic ecosystems and watershed processes. Forge partnership in stewardship and education between restoration council, Forks of Salmon School, Forest Service, CA Dept. of Fish & Game, other independent specialists & the Salmon River community. Agreement history: Approved at 6/16/93 TF meeting.
E-06	Diane Higgins	Klamath Basin	Klamath River Educational Program for grades K-3.	21348	Develop curriculum and field activities for grades K-3. Agreement history: Authorized funding in FY94 by TF at 6/16/93 meeting.
E-07	Salmonid Restoration Federation	Klamath Basin	1994 California salmonid restoration conference	3000	Approved at 6/16/93 TF meeting. Order for Services to be drafted after 10/1/93.
** Subtotal **				30093	
** CATEGORY: Fish protection					
FP-10	USFWS CA/NV Fish Health Center	Middle Klamath subbasin	Health and physiology evaluation of hatchery yearling chinook emigrants	10000	Building on the pathogen prevalence study of salmonid smolts conducted in FY92, this study will: A) Document the incidence and intensity of pathogen infection B) Monitor immune defense characteristics of hatchery chinook C) Correlate physiological and non-specific immune defense measurements with health status prior to hatchery release, collection site and time, infection, and environmental conditions (flow, temperature).
FP-19	USFWS Coastal California FRO	Klamath Basin	Age composition of the 1993 Klamath River fall chinook run	7850	Determination of the age composition of the Klamath River fall chinook run in 1993 for use in the management of this stock. Agreement history: Funded by TF at 6/16/93

KLAMATH FISHERY RES[redacted]ON PROGRAM
FEDERAL WORK PLAN, [redacted] YEAR 1994

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PROJECT NUMBER	COOPERATOR	LOCATION	PROJECT DESCRIPTION	COST	COMMENT
					meeting.
** Subtotal **				17650	
** CATEGORY: Fish Restoration					
FR-02	HCIDC	Lower Klamath subbasin	Yurok reservation late run fall chinook accelerated stocking program	168915	Restore fish stocks. Agreement history: Approved by TF at 6/16/93 meeting.
FR-04	HCIDC	Middle Klamath subbasin	Mid-Klamath chinook rearing pond program	164787	Restore the locally adapted fall chinook in select tributaries of the Klamath River. Agreement history: Approved by TF at 6/16/93 meeting.
** Subtotal **				333702	
** CATEGORY: Habitat Protection					
HP 06	Great Northern Corporation	Shasta River subbasin	Grenada irrigation district pumping costs	0	Assist the Grenada Irrigation District with costs associated with pulse flow project. Agreement history: Approved by TF at 6/16/93 meeting. Funded with FY93 monies.
** Subtotal **				0	
** CATEGORY: Habitat Restoration					
HR-10	USFWS Klamath National Forest	Middle Klamath subbasin	Horse Creek Restoration Project	26797	To stabilize roadbed and streambank erosion which is contributing high loads of sediment into the Horse Creek drainage. These areas of high sediment delivery are adversely affecting egg and fry survival and reducing the availability of refugium and rearing habitat. Agreement history: Approved at 6/16/93 TF meeting.
HR 19	Tulana Farms	Upper Klamath subbasin	Tulana Farms Williamson River riparian restoration	21500	Improve water quality through restoration of riparian, emergent and aquatic vegetation & reduction of soil erosion. Restore andprotect spawning, rearing & feeding habitat for fish species in the Klamath watershed. Promote public understanding of the importance of and need for a healthy watershed, and the restoration and preservation of productive fish habitat. Agreement history: Approved by TF at 6/16/93 meeting, but to be held in abeyance until Upper Basin Amendment is approved.

KLAMATH FISHERY RESTORATION PROGRAM
FEDERAL WORK PLAN, FISCAL YEAR 1994

files: fedwp.dbf, fedwp94.qry, fedwp94.frm

PROJECT NUMBER	COOPERATOR	LOCATION	PROJECT DESCRIPTION	COST	COMMENT
MR-31	USFS Klamath National Forest	Salmon River subbasin	Stabilization analysis for the Monte Creek-86 landslide	26981	Prepare a design package and NEPA document for the stabilization of a large landslide that threatens anadromous fisheries habitat and water quality in the lower 6 miles of the Salmon River. Agreement history: Approved at 6/16/93 TF meeting.
MR-33	Klamath Forest Alliance	Salmon River subbasin	Bare country landscape community partnership project (riparian planting)	8635	Educate, involve and basically train local community residents and the private landowners within the bare country landscape to identify, prioritize, and restore critical riparian ecosystems on both public and their own private lands. Agreement history: Approved at 6/16/93 TF meeting.
MR 32	Siskiyou Resource Conservation Dist	Scott River subbasin	Stockwater feasibility study for Scott Valley irrigation ditch	7580	Conduct a study on the Scott Valley irrigation ditch to determine feasibility of providing stockwater from wells rather than diverted surface water. Agreement history: Approved at 6/16/93 TF meeting.
MR-33	Siskiyou RCD	Scott River subbasin	Scott River riparian woodland revegetation	12117	Demonstrate the feasibility of re-establishing a riparian forest within the fenced, riparian zone of the Scott River in Scott Valley. Agreement history: Approved at 6/16/93 TF meeting.
MR-34	Great Northern Corporation	Shasta River subbasin	Riparian planting evaluation	31816	Improve success rate of riparian plantings along the Shasta River. Agreement history: Approved at 6/16/93 TF meeting.
MR-37	Great Northern Corporation	Shasta River subbasin	Generic riparian fencing	59929	Construct approximately 3 miles of cattle exclusion fence, plant exclusion areas to accelerate riparian recovery. Agreement history: Approved at 6/16/93 TF meeting.
** Subtotal **				197355	
** CATEGORY: Program Coordination					
PC-01	Klamath Forest Alliance	Salmon River subbasin	Salmon River community restoration program	0	Through a cooperative planning and implementing effort, educate, involve and train community

KLAMATH FISHERY RES[illegible]N PROGRAM
FEDERAL WORK PLAN, F[illegible] YEAR 1994

files: fedwp.dbf, fedwp94.qry, fedwp94.frm

PROJECT NUMBER	COOPERATOR	LOCATION	PROJECT DESCRIPTION	COST	COMMENT
					members to identify, protect, and to restore the Salmon River sub-basin. Agreement history: Approved at 6/16/93 TF meeting. Funded with FY93 monies.
PC-02	Siskiyou RCD	Scott River subbasin	Scott River Watershed Coordinated Resource Management Plan	0	To continue the positive work started by the Scott Valley CRMP to restore and maintain a healthy and productive watershed. Agreement history: Approved at 6/16/93 TF meeting. FY94 project funded with FY93 monies.
PC-03	USFWS Klamath River FRO	Klamath Basin	Technical/operational support for watershed-based restoration planning	16000	Technical Work Group has determined that a GIS map is needed. Bob Rohde will develop a scope of work. Originally planned for FY 93, project was delayed and is to be funded in FY 94. Agreement history: Approved at 6/16/93 TF meeting.
PC 04	USFWS Klamath River FRO	Klamath Basin	Provide staff support for program coordination and administration	405000	Funds USFWS support costs, and costs of Klamath Task Force, Klamath Council, and technical teams.
* Subtotal **				421000	
** Total ***				1000000	

Under the authority of the Federal Power Act, as amended by the Electric Consumers Protection Act, the Federal Energy Regulatory Commission (FERC) has the responsibility of issuing licenses for non-federal hydroelectric power plants.

(c)

Role of the FERC in Relicensing

The Federal Power Act (FPA) provides the FERC with the exclusive authority to license nonfederal water power projects on navigable waterways and federal lands. The FERC issues licenses for up to 50 years for constructing, operating, and maintaining nonfederal hydropower projects. Upon expiration of a license, the federal government can take over the project (with equitable compensation), or the FERC can issue a new license to either the existing licensee or a new licensee.

The FERC is headed by a five-person commission whose members are appointed by the President and confirmed by the Senate. The Commission is supported by a staff that includes the Office of Hydropower Licensing (OHL). It is the OHL staff that reviews and processes license applications and makes recommendations to the Commission on hydropower licensing matters.

Several important principles are established by the FPA that apply equally to both the issuance of original licenses and to relicensing.

- In deciding whether to issue a license, the FERC gives equal consideration to a full range of purposes related to the potential value of a stream or river. Among these purposes are:

  - hydroelectric development;
  - energy conservation;
  - fish and wildlife resources, including their spawning grounds and habitat;
  - recreational opportunities;
  - other aspects of environmental quality;
  - irrigation;
  - flood control; and
  - water supply.

Role of the FERC in Relicensing (continued)

- The FERC must be satisfied that the project to be licensed is adapted as well as possible to a comprehensive plan for developing the waterway. In making this judgment, the FERC considers comprehensive plans prepared by federal and state entities and the recommendations of federal and state resource agencies, the public, and Indian tribes affected by the proposed project.

- To adequately protect, mitigate for damage to, and enhance fish and wildlife, along with their habitats, each license includes a set of terms and conditions. These fish and wildlife conditions, along with conditions relating to other environmental resources and engineering issues, are determined through the FERC's independent analysis on the basis of federal and state fish and wildlife agency recommendations and input from the applicant, affected Indian tribes, and the public.

- In cases where the proposed project is located on a federal reservation, the federal agency responsible for managing that land can establish mandatory terms and conditions to protect the reservation. Additionally, the Department of Commerce is authorized by the Federal Power Act to prescribe fishways at projects licensed.

- After a license is issued, the FERC monitors the licensee's compliance with the license conditions throughout the term of the license.

FERC Considerations in the Relicensing Decision

Several specific considerations guide the FERC's evaluation of whether a project is best adapted:

- the extent to which the project is consistent with all qualifying comprehensive water resource plans;

  To qualify as a "comprehensive plan," a plan must:

  - be a comprehensive study of one or more of the beneficial uses of a waterway or waterways;

  - include a description of the standards, data, and methodologies used;

  - be prepared either by an agency established by federal law with authority to prepare such a plan or by a state agency authorized to conduct such planning; and

  - be filed with the FERC.

  If a federal, state, or regional plan does not qualify as a comprehensive plan, the FERC will still consider it in its licensing decision, as it considers all relevant studies and recommendations. The weight accorded any plan or recommendation depends on the quality and extent of documentation that supports it and the number of public uses considered.

FERC Considerations in the Relicensing Decision

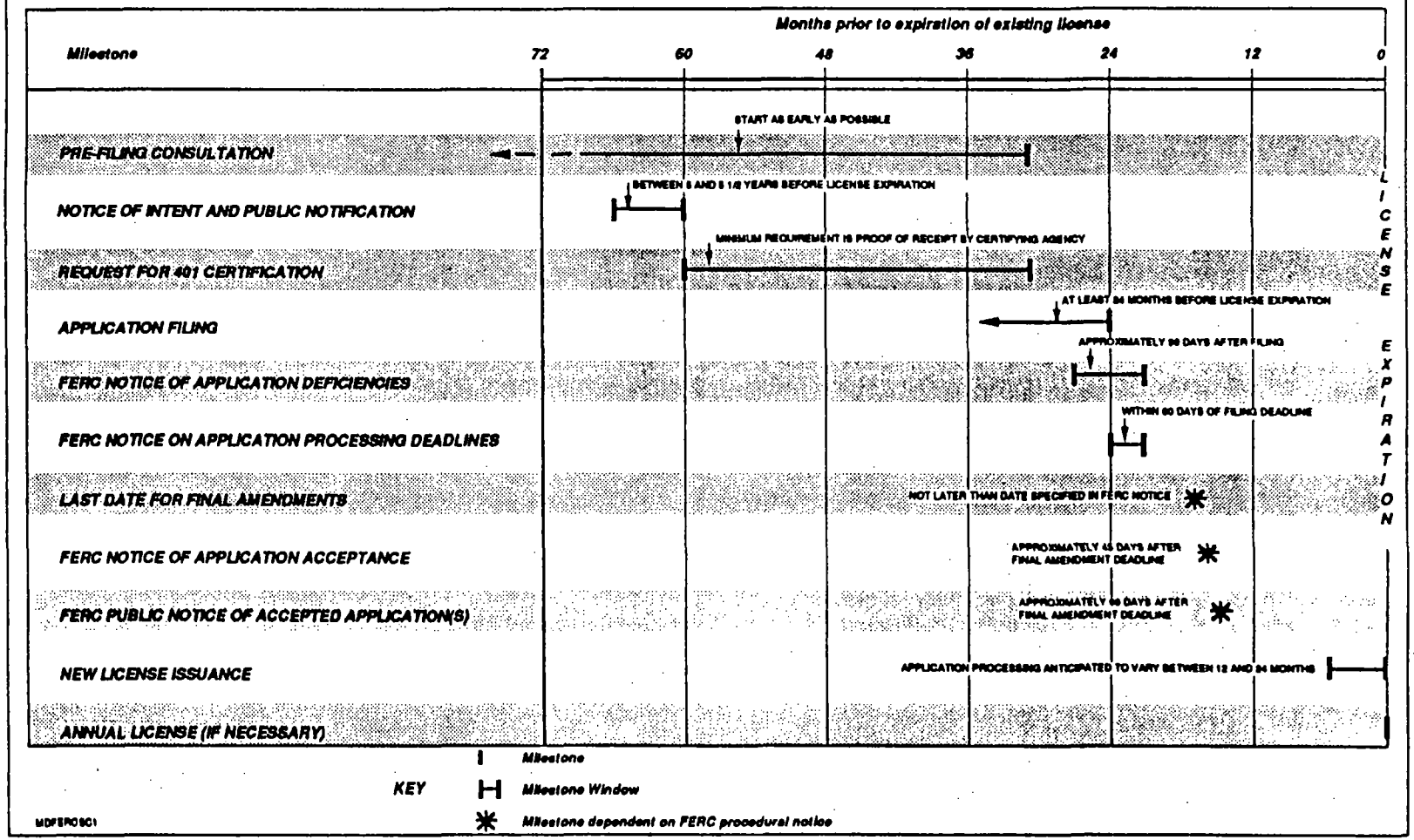
For a project to receive a new license, the FERC must judge that the project licensed will be best adapted to a comprehensive plan for the waterway that takes into account the following:

- potential benefits to interstate or foreign commerce;
- utilization of the site's hydroelectric potential;
- adequate protection, mitigation, and enhancement of fish and wildlife (including their spawning grounds and habitat); and
- other beneficial public uses, including energy conservation, irrigation, flood control, water supply, recreational opportunities, and other aspects of environmental quality.

In weighing the relative importance of these various components of a comprehensive plan for a waterway, the FERC is required by law to give equal consideration to both developmental and nondevelopmental values. Equal consideration **does not mean** treating all potential purposes equally or requiring that an equal amount of money be spent on each resource value, but it **does mean** that all values must be given the same level of reflection and thorough evaluation in determining that the project licensed is best adapted. In balancing developmental and nondevelopmental objectives, the FERC will consider the relative value of the existing power generation, flood control, and other potential developmental objectives in relation to present and future needs for improved water quality, recreation, fish, wildlife, and other aspects of environmental quality.

FIGURE 1

Key Schedule Milestones
Standard Relicensing Scenario



Relicensing Process Overview

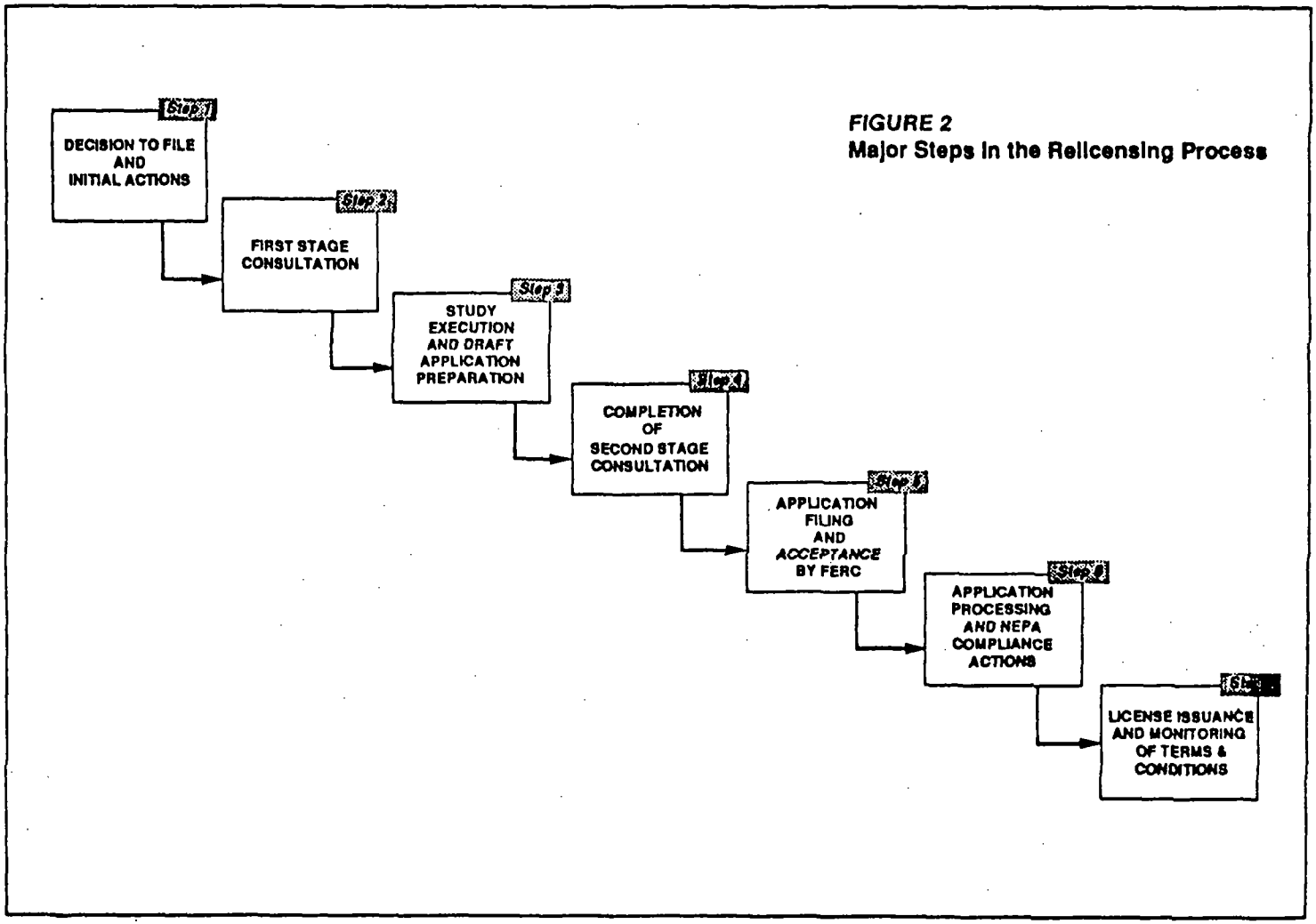


FIGURE 2
Major Steps in the Relicensing Process

SECT 18

(8)

FEDERAL POWER ACT
(16 U.S.C. 791-828c)

SECTION 18:

"THE COMMISSION SHALL REQUIRE THE CONSTRUCTION, MAINTENANCE, AND OPERATION BY A LICENSEE AT ITS OWN EXPENSE OF...SUCH FISHWAYS AS MAY BE PRESCRIBED BY THE SECRETARY OF THE INTERIOR OR THE SECRETARY OF COMMERCE, AS APPROPRIATE."

SECTION A. . .

(9)

FEDERAL POWER ACT
(16 U.S.C. 791-828c)

SECTION 10(A)(1):

"...THE PROJECT ADOPTED...SHALL BE SUCH AS IN THE JUDGMENT OF THE COMMISSION WILL BE BEST ADAPTED TO A COMPREHENSIVE PLAN FOR IMPROVING OR DEVELOPING A WATERWAY...FOR THE ADEQUATE PROTECTION, MITIGATION AND ENHANCEMENT OF FISH AND WILDLIFE (INCLUDING RELATED SPAWNING GROUNDS AND HABITAT)..."

SEC 10 B

(10)

FEDERAL POWER ACT
(16 U.S.C. 791-828c)

SECTION 10(A)(2):

"IN ORDER TO ASSURE THAT THE PROJECT ADOPTED WILL BE BEST ADAPTED TO THE COMPREHENSIVE PLAN DESCRIBED...THE COMMISSION SHALL CONSIDER...

(A) THE EXTENT TO WHICH THE PROJECT IS CONSISTENT WITH A COMPREHENSIVE PLAN...FOR IMPROVING, DEVELOPING, OR CONSERVING A WATERWAY OR WATERWAYS AFFECTED BY THE PROJECT THAT IS PREPARED BY...

(I) AN AGENCY ESTABLISHED PURSUANT TO FEDERAL LAW THAT HAS THE AUTHORITY TO PREPARE SUCH A PLAN..."

SECTION 15

(11)

FEDERAL POWER ACT
(16 U.S.C. 791-828c)

SECTION 10(J)(1):

"...IN ORDER TO ADEQUATELY AND EQUITABLY PROTECT, MITIGATE DAMAGES TO, AND ENHANCE, FISH AND WILDLIFE ...AFFECTED BY THE DEVELOPMENT, OPERATION, AND MANAGEMENT OF, THE PROJECT, EACH LICENSE ISSUED UNDER THIS PART SHALL INCLUDE CONDITIONS FOR SUCH PROTECTION, MITIGATION, AND ENHANCEMENT...SUCH CONDITIONS SHALL BE BASED ON RECOMMENDATIONS RECEIVED FROM THE NATIONAL MARINE FISHERIES SERVICE, THE UNITED STATES FISH AND WILDLIFE SERVICE, AND STATE FISH AND WILDLIFE AGENCIES."

(12)

KLAMATH RIVER HYDROELECTRIC PROJECT
FERC PROJECT NO. 2082

LICENSE EXPIRATION: FEBRUARY 28, 2006

NOI DUE BETWEEN 8/28/2000 AND 2/28/2001

PRE-FILING CONSULTATION MAY OCCUR SOONER

NEW LICENSES ARE ISSUED FOR TERMS EXTENDING FROM 30 TO 50 YEARS

RELICENSING PROVIDES THE OPPORTUNITY TO REASSESS AND MITIGATE THE FISH AND WILDLIFE IMPACTS OF A PROJECT THAT MAY HAVE BEEN IN OPERATION FOR 50 YEARS, OR MORE

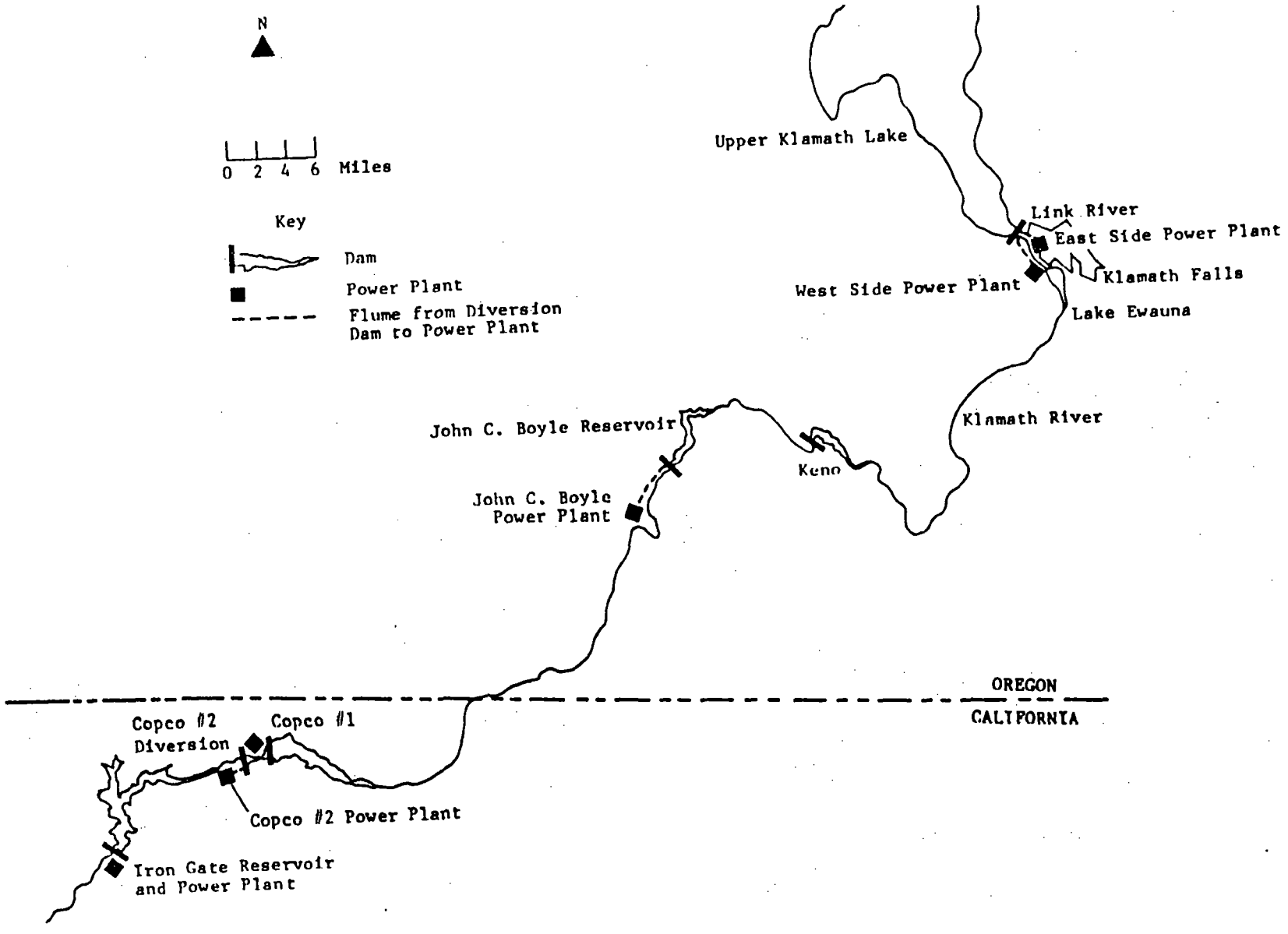
FERC BASELINE CONDITIONS FOR THE PURPOSE OF DETERMINING THE EFFECTS OF A PROJECT UPON FISH AND WILDLIFE RESOURCES ARE THOSE THAT EXIST AT THE PRESENT

(13)

KLAMATH RIVER HYDROELECTRIC PROJECT
FERC PROJECT NO. 2082

FACILITY (DATE)	RM	DAM HT. (FT)	HYD. CAP. (CFS)	MW
LINK RIVER (1917)	254	22		
EAST SIDE (1924)			1290	0.8
WEST SIDE (1908)			200	3.2
KENO (1914)	233	?	N/A	N/A
J.C. BOYLE (1958)	225	38	2530	82.0
COPCO NO. 1 (1918)	199	126	3200	26.5
COPCO NO. 2 (1925)	198	43	3350	30.0
FALL CREEK (1909)	196	4	?	2.2
IRON GATE (1962)	190	173	1700	20.0

KLAMATH RIVER HYDROELECTRIC PROJECT
FERC PROJECT NO. 2082



KLAMACT.

(15)

KLAMATH RIVER BASIN ACT
16 U.S.C. 460-466

SECTION 2(B)(1):

"THE SECRETARY SHALL, IN CONSULTATION WITH THE TASK FORCE... FORMULATE, ESTABLISH, AND IMPLEMENT A 20-YEAR PROGRAM TO RESTORE THE ANADROMOUS FISH POPULATIONS OF THE AREA TO OPTIMUM LEVELS AND TO MAINTAIN SUCH LEVELS.

(2) IN CARRYING OUT THE OBJECTIVES OF THE PROGRAM, THE SECRETARY, IN COOPERATION WITH THE TASK FORCE...SHALL...

(B) TAKE SUCH ACTIONS AS ARE NECESSARY TO...

(I) IMPROVE AND RESTORE AREA HABITATS, AND TO PROMOTE ACCESS TO BLOCKED AREA HABITATS, TO SUPPORT INCREASED RUN SIZES;

(II) REHABILITATE PROBLEM WATERSHEDS IN THE AREA TO REDUCE NEGATIVE IMPACTS ON FISH AND FISH HABITATS;

(v) IMPROVE UPSTREAM AND DOWNSTREAM MIGRATION BY REMOVAL OF OBSTACLES TO FISH PASSAGE AND THE PROVISION OF FACILITIES FOR AVOIDING OBSTACLES."

KLAMATH RIVER BASIN LONG RANGE PLAN

Policies for Water and Power Projects

Objective 2.E. Protect salmon and steelhead habitat from harmful effects of water and power projects in the Klamath Basin.

2.E.1. Support the evaluation of existing large water storage projects in the basin to determine their effect on limiting factors for anadromous fish production, including the following:

a. Reevaluate (from the 1966 study) the currently available spawning and rearing habitat located above Iron Gate Dam, where needed.
b. Monitor water quality, including water temperatures, above, within, and below the Copco and Iron Gate reservoirs, for a five year period to determine the effects of water storage and powerplant operations on downstream habitat conditions.
c. Evaluate the instream flow needs, using state-of-the-art methods, of each salmon and steelhead run and life stage affected by flows released from Iron Gate Dam.
d. Examine the impact of Lake Shastina on Shasta River's water quality problems.

2.E.2. Identify and implement methods to rectify habitat problems identified in #1 above, including the following:

a. Access above Iron Gate and Copco Dams to the Upper Klamath Basin.
b. Water quality above and below Iron Gate Dam.
c. Instream flow and habitat below Iron Gate Dam.
d. Water quality and flow from Lake Shastina.

2.E.3. Promote adequate fish protection requirements in the relicensing conditions for the Iron Gate Hydroelectric Project and other power projects by the Federal Energy Regulatory Commission.

2.E.4. Advocate inclusion and enforcement of effective conditions for salmonid habitat protection on small and large hydroelectric projects and other water storage projects.

2.E.5. Oppose further large water storage projects until habitat problems caused by existing projects are rectified, and proof is available that any proposed project will not contribute to habitat problems.

2.E.6. Oppose the additional exportation (through water marketing or other means) of water from the Klamath River or Trinity River Basins, which is necessary to restore and protect anadromous fish populations.

2.E.7. Require water flows adequate to achieve optimal productivity of the basin.

2.E.8. Seek the establishment of law that mandates minimum streamflow standards.

2.E.9. Advocate improved streamflow releases from the Trinity River Project which will better mimic the natural or pre-dam streamflow patterns.

ROLE OF KLAMATH RIVER BASIN FISHERIES TASK FORCE IN RELICENSING OF KLAMATH RIVER HYDRO PROJECT:

- DIRECTION FOR RESTORATION OF ANADROMOUS FISH IN BASIN

  -LONG RANGE PLAN, SUBMITTED TO FERC AS "COMPREHENSIVE PLAN"

- PROVIDE COMMENTS TO PACIFIC POWER AND FERC REGARDING ACTIONS TO PROTECT, MITIGATE AND ENHANCE ANADROMOUS FISHERIES AFFECTED BY KLAMATH RIVER PROJECT BASED ON LONG RANGE PLAN

  - FIRST STAGE CONSULTATION, CONCERNS AND STUDIES
  - COMMENTS REGARDING LICENSE APPLICATION, MEASURES PROPOSED BY APPLICANT
  - COMMENTS TO FERC REGARDING EIS

ROLE OF RELICENSING KLAMATH RIVER HYDROELECTRIC PROJECT IN THE RESTORATION OF ANADROMOUS FISH IN THE KLAMATH RIVER BASIN

- -REINTRODUCTION OF ANADROMOUS SALMONIDS INTO UPPER BASIN
  - -FISH PASSAGE
  - -WATER QUALITY
  - -HABITAT RESTORATION
  - -MINIMUM FLOWS
- -MAINSTEM HABITAT IMPROVEMENT BELOW IRON GATE
  - -MINIMUM FLOWS
  - -WATER QUALITY

THE ACHEIVEMENT OF THESE GOALS SHOULD BE EXPLORED CONSIDERING A RANGE OF STRUCTURAL AND/OR OPERATIONAL MEASURES

FWS IS CONCERNED THAT THE PROPOSED UPPER BASIN AMENDMENT WOULD COMPROMISE POTENTIAL PRE-LICENSING STUDIES AND RESTORATION OPTIONS DURING THE RELICENSING PROCEEDING

Federal Power Act

(16 U.S.C. 791-828c; Chapter 285, June 10, 1920; 41 Stat. 1063) as amended by—

Chapter 129, March 3, 1921; 41 Stat. 1353.
Chapter 572, June 23, 1930; 46 Stat. 799
Chapter 687, August 26, 1935; 49 Stat. 803.
Chapter 782, October 28, 1949; 63 Stat. 954
P.L. 247, October 31, 1951; 65 Stat. 701.
P.L. 87-647, September 7, 1962; 76 Stat. 447.
P.L. 95-617, November 9, 1978; 92 Stat. 3117.
P.L. 96-294, June 30, 1980; 94 Stat. 611.
P.L. 97-375, December 21, 1982; 96 Stat. 1819.
P.L. 99-495, October 16, 1986; 100 Stat. 1243.

These public laws appear in Chapter 12 of the U.S. Code, Federal Regulation and Development of Power, Subchapter I, Regulation of the Development of Water Power and Resources. The original statute was enacted in 1920. Many of the subsequent amendments have not involved resource issues; however, the 1935 and 1986 amendments added new requirements to incorporate fish and wildlife concerns in licensing, relicensing, and exemption procedures.

The original Federal Power Act provides for cooperation between the Federal Energy Regulatory Commission (Commission) and other Federal agencies, including resource agencies, in licensing and relicensing power projects. The President is required to appoint the five commissioners with the advice and consent of the Senate (16 U.S.C. 792). The President is also authorized, at the request of the Commission, to detail engineers from the Departments of Agriculture or Interior for field work (16 U.S.C. 793).

"Navigable waters" (for which the Commission has jurisdiction under the Commerce Clause) are defined to include "streams or other bodies of water over which Congress has jurisdiction to regulate commerce among foreign nations and among the States" (16 U.S.C. 796). The Commission is authorized to issue licenses to construct, operate and maintain dams, water conduits, reservoirs, and transmission lines to improve navigation and to develop power from any streams or other bodies of water over which it has jurisdiction (16 U.S.C. 797(e)).

The term "reservation" lands is defined to include national forests, Indian lands, and any other lands "acquired and held for public purposes" not including national monuments or national parks (16 U.S.C. 796(2)). This definition, accordingly, includes national wildlife refuge lands as a "reservation." Any license application for a project within a "reservation" requires an affirmative finding by the Commission that the project will not be inconsistent with the purpose for which the land was acquired or created. In addition, the license is to contain conditions deemed necessary by the Federal department which has jurisdiction to protect the resources (16 U.S.C. 797(e)). Section 797(a) further prohibits any permit, license, lease or dam authorization within a national park or national monument without the specific authority of Congress.

In deciding whether to issue a license, the Commission is required to give "equal consideration" to the following purposes: power and development; energy conservation; protection, mitigation of damage to, and enhancement of, fish and wildlife (including spawning grounds and habitat); protection of recreational opportunities, and preservation of other aspects of environmental quality (16 U.S.C. 797(f)).

The time frame for licenses can not exceed 50 years (16 U.S.C. 799). The Commission is authorized to grant preference to applications by States or municipalities when issuing preliminary permits or original licenses (16 U.S.C. 800). The project selected must be the project which is best adapted to a comprehensive plan for improving or developing a waterway for several public benefits, including benefits for the "adequate protection, mitigation and enhancement of fish and wildlife" (16 U.S.C. 803(a)). In making this determination, the Commission is required to consider the recommendations from various sources, including fish and wildlife recommendations of affected Indian tribes (16 U.S.C. 803(a)(2)(B)).

The 1986 amendments to the Federal Power Act, entitled the Electric Consumers Protection Act, mandated several fish and wildlife provisions. Each license is to include conditions to protect, mitigate and enhance fish and wildlife affected by the project. These conditions are to be based on recommendations received pursuant to the Fish and Wildlife Coordination Act from the Fish and Wildlife Service, the National Marine Fisheries Service, and State fish and wildlife agencies (16 U.S.C. 803(j)(1)). The Commission is empowered to resolve any instances in which such recommendations are viewed as inconsistent while according "due weight to the recommendations, expertise, and statutory responsibilities" of the resource agencies.

In addition, the Commission is mandated to make two findings if the recommendations are not adopted in whole or in part (16 U.S.C. 803(j)(2)). These include: (1) a finding that adoption of the recommendations would be inconsistent with the purposes and requirements of this subchapter (16 U.S.C. 803(j)(2)(A)); and (2) a finding that the conditions selected by the Commission satisfy the requirement to adequately and equitably protect, mitigate damages to, and enhance fish and wildlife (16 U.S.C. 803(j)(2)(B)).

As part of the relicensing process, the Commission is required to issue a public notice indicating whether the existing licensee intends to file a new license. Notification is also required for the Fish and Wildlife Service, the National Marine Fisheries Service, and the appropriate State fish and wildlife agency (16 U.S.C. 808(b)(3)). Each application for a new license must be filed with the Commission 24 months in advance of the expiration of the existing license. In addition, each applicant is required to consult with the fish and wildlife agencies and conduct appropriate studies with such agencies (16 U.S.C. 808(c)(1)).

The Commission is also required to m[illegible] the construction, maintenance, and ope[illegible] fish passage facilities as are prescribed by [illegible] Secretary of Commerce or the Secretary of the Interior (16 U.S.C. 811).

The Commission is authorized to grant exemptions from licensing to any project for which the capacity does not exceed 15 megawatts provided that the project is located on non-Federal lands and it uses a manmade conduit. In conjunction with issuing this exemption, the Commission is required to incorporate terms and conditions recommended by the resource agencies to prevent loss of, or damages to, the resources. In addition, the Commission is to establish fees for the licensing exemption which reimburse the resource agencies for the "reasonable costs" of conducting studies. Monies are to be transferred to the agencies and are to remain available until expended for the studies (16 U.S.C. 823). Lastly, the Commission is required to monitor and investigate compliance with each license, permit or exemption [16 U.S.C. 823(b)].

Rivers at Risk

The Concerned Citizen's Guide to Hydropower

John D. Echeverria
Pope Barrow
Richard Roos-Collins

American Rivers

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Hydroelectric Project Relicensing Handbook

April 1990

Office of Hydropower Licensing
Federal Energy Regulatory Commission
Washington, DC 20426

CONTACTS

The Hydroelectric Project Relicensing Handbook is prepared by the Planning and Support Branch of the Division of Project Review, Office of Hydropower Licensing.

Questions and comments concerning the content of this handbook may be directed to Ronald McKitrick, (202) 357-0783.

This handbook is available from the Federal Energy Regulatory Commission (FERC). Information about purchasing this or other FERC reports may be obtained by calling the FERC Reference and Information Services Branch on (202) 357-8118 or by writing to FERC, Reference and Information Services Branch, Hearing Room A, 825 North Capitol Street, NE, Washington, DC 20426.

The following FERC publications may be of interest:

Application Procedures for Hydropower Licenses, License Amendments, Exemptions and Preliminary Permits (Handbook for original applications)

Engineering Guidelines for the Evaluation of Hydropower Projects (Referenced on page 19 of the Relicensing Handbook)

Other publications of interest include:

Hydroelectric Relicensing Regulations Under the Federal Power Act; Final Rule (Title 18 of the Code of Federal Regulations, Parts 4 and 16)

Hydroelectric Relicensing Regulations Under the Federal Power Act; Order on Rehearing (Title 18 of the Code of Federal Regulations, Part 16)

ACTION PLAN AND BUDGET

FOR

EXTENDED AUTHORIZATION

OF THE

TRINITY RIVER BASIN

FISH AND WILDLIFE

RESTORATION PROGRAM

CALIFORNIA

BY

TRINITY RIVER RESTORATION PROGRAM

TASK FORCE

MARCH 1993

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PREFACE

At its January 7, 1993 meeting, the Trinity River Basin Task Force considered this report and provided the following guidelines: 1) Funding for the South Fork should be included; 2) the report should recommend a 5 year extension and $21.9 million additional funding; 3) the $2.4 million cap on Operation and Maintenance (O&M) funding should be eliminated; 4) O&M funding should continue after the program ends; and 5) In-kind services should be accepted from cost-sharing partners. Upon further examination, it has been determined that simply amending the authorizing legislation would provide for all five guidelines if Congress enacted the following:

> Draft Bill Language: The Trinity River Basin Fish and Wildlife Restoration Act, Public Law 98-541, is hereby amended to permit completion of the management program as follows: Section 4, (a) (1) is amended to change the date "October 1, 1995" to "October 1, 2000" and to increase authorized funding by $22,000,000. Section 4, (a) (2) is amended by striking "$2,400,000 for each of the fiscal years in the ten-year period beginning on October 1, 1985" and replaced by, "funds necessary to perpetuate and maintain fish and wildlife habitat improvements." Section 4, (b) (1) is amended by striking "to the Treasury of the United States" and adding to the end of this subsection, "The Secretary is authorized to accept in-kind services as payment for obligations incurred under this subsection."

The purpose of this report is to provide a detailed reference to any entity wishing to pursue an extension of this program.

EXECUTIVE SUMMARY

The fish and wildlife resources of the Trinity River Basin experienced a severe decline in the early 1960's resulting from construction and operation of the Trinity River Diversion of the Central Valley Project (CVP); harmful land use practices that caused accelerated soil erosion, floods, fires, and overharvest of some anadromous fish stocks. The Trinity River Restoration Program, presently being implemented by the Secretary of the Interior assisted by a 14-member Task Force, was implemented in 1986, to restore these fish and wildlife resources. Major program goals included modernization of the Trinity River Fish Hatchery, reduction of stream sediment loading, increasing fish and wildlife habitat, and improving harvest management to protect natural fish. Particular emphasis was directed towards restoring natural populations of salmon and steelhead to approximate pre-1960 levels. The enabling legislation, Public Law 98-541, provides authorization and funding until September 30, 1995.

The purpose of this report is to facilitate the authorization of funding needed to extend the implementation phase of the program for 5 years to September 30, 2000. The program could not be fully completed with available funding on schedule because of the unanticipated use of about $14 million to construct Buckhorn Debris Dam; longer than expected time to finish construction of the dam - a requirement for the initiation of fish habitat restoration in the mainstem Trinity River; six years of drought that hurt the fishery and prevented adequate evaluation of various kinds of fish habitat measures; unexpected delays resulting from complex technical problems and preparing cost-effective project designs; and accommodating regulatory compliance requirements.

Table S-1 summarizes expected accomplishments and expenditures, remaining work, and estimated additional funding needed to fully implement the restoration program.

By September 30, 1995, major program accomplishments would include: Implementation of a county-wide education program; construction of Buckhorn Sediment Control Dam; purchase and restoration of a major portion of Grass Valley Creek watershed, and several in-stream sediment collection pools; modernization of the Trinity River Fish Hatchery; completion of about one-half of the potential mainstem fish habitat improvement projects; completion of approximately one-third to one-half of the identified cost-effective watershed stabilization projects on river tributaries; completion of planning and partial project implementation to restore the fishery of the South Fork Trinity River; implementation of several off-hatchery interim artificial fish propagation projects; development and partial implementation of a wildlife program; and development and implementation of an extensive fish population monitoring program. Total construction funding would be approximately $60 million. Of this total, $15 million consists of a pending additional authorization for use under Action 2 to purchase and restore Grass Valley Creek watershed lands.

The additional work needed to complete the restoration effort from October 1, 1995 through September 30, 1998 would consist of: Construction of additional

ble S-1. Summary of Trinity River Fish and Wildlife Restoration Program Construction Accomplishments, Future Needs, and Funding (costs in millions of dollars)

ACTIONS	ACCOMPLISHMENTS AS OF 9-30-95	SPENDING AS OF 9-30-95	ADDITIONAL WORK NEEDED 10-1-95 THROUGH 9-30-98	ADDITIONAL FUNDING NEEDED 10-1-95 THROUGH 9-30-98
1) Institutional Organization	- Program Administration, Coordination and Evaluation - Implement Education Program - Implement County Grant Program	[1]	- Continued Program Administration and Coordination Education Program County Grant Program	[1]
2) Grass Valley Creek Sediment Control	- Buckhorn Dam - Two Sediment Collection Pools - Land Purchase - Restoration Work Completed	37.0[2]	- Additional Sediment Collection Pool - Completion of Land Purchase - Two-thirds Restoration Work - Evaluation of Results	1.5
3) Mainstem Rehabilitation and Maintenance	- Curb Fish Habitat Decline - Approximately 60 Projects (50% of total) Completed - Plans and Environmental Compliance Completed	4.7	- Complete Remaining 50% of Projects - Evaluate Results	3.0
4) Tributary Rehabilitation and Maintenance	- Curb Fish Habitat Decline - Approximately 30 miles of Stream Treated - Plans Completed	4.4	- Additional 190 miles of Stream Treated - Results Evaluated	6.1
5) Sediment Control Tributary Watersheds	- Trend of Watershed Degradation Curbed - 28 Watersheds Inventoried - Completion of about 55% Cost-Effective Sites	4.4	- Implement Remaining 43% Cost-Effective Projects - Evaluate Results	3.0
[redacted] Fork Trinity River Fish and Watershed	- Planning Completed - Inventories Completed - Curb Trend of Watershed Degradation - Partial Implementation of Projects Mostly on Public Lands	3.4	- Continued Project Implementation on Public and Private Lands - Bioenhancement - Evaluate Results	4.0
7) Modernization of Trinity River Fish Hatchery	- Upgrading Work Completed - Operating Procedures Reviewed and Modified as Appropriate	3.5	- Continue Evaluation of Operating Procedures	0.7
8) Use of Artificial Propagation Below Lewiston	- Implementation of Four Projects - Evaluate Projects	0.8	- Implement Two Additional Projects - Evaluate All Projects	0.9
9) Wildlife Management Program	- Surveys and Plans Completed - Partial Implementation of Projects	1.6	- Complete Implementation of Projects - Monitor Some Results	2.7
10) Monitor Anadromous Fish	- Development and Implementation of Monitoring Program	0.1	- Continue Monitoring Program - Evaluate Restoration Success	[3]
11) Stream and Land Use Evaluations	- Recommendations for Management Improvements	0.1[4]	- Not Applicable	[4]
TOTALS		60.0		21.9

[1] Costs Distributed Proportionally to Other Actions.
[2] Includes $15 million from Pending Additional Authorization.
[3] Funding Provided by Bureau of Reclamation as Part of Operation of Central Valley Project.
[4] Incorporated into Other Action Items.

OVERVIEW

NEED

The Trinity River, located in Trinity and Humboldt Counties and the Hoopa Valley Reservation in northwestern California, historically was one of the most productive salmon and steelhead rivers in the State (Figure 1). However, its productivity has been greatly diminished by a combination of dam construction, water diversion, sedimentation from watershed disturbance caused mainly by road building and logging, and periodic over-fishing. These factors resulted in a reduction in fish populations of as much as 90 percent during the 1960's and 1970's. In addition, construction of the Trinity Division of the CVP eliminated over 100 miles of habitat from use by salmon and steelhead, inundated about 20,000 acres of wildlife habitat and altered downstream flows and riparian habitat. Salmon and steelhead populations and habitat still remain below desirable levels.

BACKGROUND

In 1974, six State and Federal agencies formed the Trinity River Basin Fish and Wildlife Task Force (Task Force) to develop an action plan and seek required funding. During this same period, the demise of the fishery stimulated a substantial amount of public concern that resulted in political pressure to restore the river's fish and wildlife resources. Studies by the Task Force agencies along with pressure from Indian Tribes and the public, led to a decision by the Secretary of the Interior in 1981 to increase annual fishery releases at Lewiston Dam from 120,000 to 340,000 acre-feet, with reductions to 220,000 acre-feet in dry years and 140,000 acre-feet in critically dry years. Also in 1981, a 12-year Flow Evaluation Program was authorized to be carried out by the U.S. Fish and Wildlife Service (Service). That effort began in 1984, and is designed to evaluate fish habitat at various flows, develop a recommended flow regimen, and evaluate restoration measures. Public Law 102-575 provides at least 340,000 acre-feet of water for fisheries in all years until a permanent flow decision is made following completion of the flow evaluation in 1996.

In the late 1970's, the Task Force concluded that one small watershed -- Grass Valley Creek -- was responsible for the bulk of the sediment that was destroying fish habitat in the most productive sections of the Trinity River. This conclusion led to the passage of Public Law 96-335 in 1980, that authorized and partially funded construction of Buckhorn Dam and several sediment collection pools on Grass Valley Creek as a sediment control system.

In May 1982, the Task Force completed the Trinity River Basin Fish and Wildlife Management Program that identified 11 actions aimed at restoring fish and wildlife habitat. The action plan was embodied in legislation in 1984 when Congress passed Public Law 98-541, the Trinity River Basin Fish and Wildlife Restoration Act (Act). There was broad bipartisan congressional, state, local, Indian and public support for the program.

Tribe would have an active co-management role.

OPERATION AND MAINTENANCE

Long-term O&M of key fish habitat features will be funded through Reclamation through its CVP O&M program. The O&M program will also include monitoring of fish habitat and fish populations to ascertain the effectiveness of the restoration program. The level of funding for the long-term O&M program is currently capped at $2.4 million per year. The cap would be removed to permit additional funding to clean out the sediment catchment pools in Grass Valley Creek and maintain the habitat improvements described in this report.

FUNDING ANALYSIS

The primary reasons additional time and funding are needed are:

1. Funding provided in Public Law 96-335 for construction of Buckhorn Dam proved inadequate. As a result about $14 million originally intended for other restoration actions was used to complete the dam.

2. Public Law 98-541 precluded restoration actions in the mainstem Trinity River below Grass Valley Creek until Buckhorn Dam was completed. However, the dam was not completed until 1991. This delayed progress and less than expected work in this important segment of the river has been accomplished.

3. Public Law 98-541 authorized $2.4 million annually for operation, maintenance, and monitoring beginning in FY year 1985 and ending in 1995. Funds provided for these purposes from 1985 through 1991 averaged less than half the authorized amounts. Maximum O&M needs did not occur until the middle program years. At least $10.4 million of authorized operation, maintenance, and monitoring money will remain unexpended at the end of the program in 1995.

4. The prolonged drought over the last 6 years prevented the release of adequate flows, thereby delaying the proper evaluation of the effectiveness of various habitat improvement measures and precluded efficient determination of the most effective habitat types. The drought also contributed to the decline of fish populations.

5. Inadequate consideration was given to either costs or time involved in preparing environmental impact reports and other regulatory compliance that are required for restoration actions particularly on the mainstem.

6. The technical complexity of meeting the fishery and wildlife restoration objectives was not fully known at the time the legislation was enacted. Unanticipated technical problems have increased the amount of assessment and pilot evaluation work required prior to embarking on large-scale habitat construction and watershed stabilization. A major finding of a 1990-91 review of the Flow Evaluation and Restoration Programs by the Department of the Interior was that the most credible method of planning, designing, implementing and evaluating restoration measures on

TABLE 1. TRINITY RIVER RESTORATION PROGRAM FUNDING ANALYSIS

Trinity River Restoration Program ACTION	Construction Funding Authorized By PL 98-541		Program Construction Expenditures to the End of FY-91 (Oct.1, 1985 Through Sept. 30, 1991)	Estimated Remaining Construction Funds Authorized by PL 98-541 As indicated in Action Plan for Fiscal Years 1992-1995	Estimated Construction Funds Needed to Complete the Program (Oct. 1, 1995 Through Sept. 30, 1998)
	Initial Authorization Amounts From 1982 Report	Indexed to 1995			
	COSTS IN ($1,000,000)				
1. Overhead and General Support Activities Includes Public Information, Participation, and Education	Costs for this action have been distributed to the other actions.				
2. Control of Grass Valley Creek Sediment Load	0.0[1]	0.0	19.5[2]	17.5[3]	1.5
3. Rehabilitate and Maintain the Main Trinity River Below Lewiston	10.4	14.7	2.2	2.5	3.0
4. Rehabilitate and Maintain Tributaries Below Lewiston	5.2	7.3	2.4	2.0	6.1
5. Rehabilitate and Maintain Watersheds Below Lewiston	6.2	8.8	2.0	2.4	3.0
6. Rehabilitate and Maintain South Fork Trinity River and Watershed	3.1	4.4	2.2	1.2	4.0
7. Modernization of Trinity River Fish Hatchery Facilities	3.1	3.0[4]	3.0	0.5	0.7
8. Use of Artificial Propagation Techniques Below Lewiston	1.6	2.2	0.3	0.5	0.9
9. Wildlife Management Program	0.6	0.7	0.4	1.2	2.7
10. Monitor Anadromous Fish Stocks and Fisheries	2.6	3.6	0.1	0.0[5]	0.0[6]
11. Stream and Land Use Evaluations[7]	0.2	0.3	0.1	0.0	0.0
Additional Authorization		15.0[8]			
TOTALS	33.0	60.0	32.2	27.8	21.9

[1] Costs of Buckhorn Dam and Sand Dredging were to be funded through PL 96-335. No costs were identified in PL 98-541 for this Action.
[2] Some of those costs were funded by PL 96-335, 5.3 million C&R; 1.6 million O&M.
[3] $3,000,000 ceiling approved by the Trinity River Task Force.
[4] This Action Item has been incorporated into other Action Items.
[5] Approximately 9.0 million of O&M funds will have been spent for fish monitoring.
[6] Monitoring of fish stocks will be funded under the Bureau of Reclamation O&M pr
[7] Pending as of September 1992.
[8] Includes the $15 million pending additional authorization.

COMPLIANCE WITH THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

The Final Environmental Impact Statement (INT/FES 83-53) for the program was filed with the Environmental Protection Agency, October 29, 1983. That document was programmatic describing impacts in general terms and committing the Secretary of the Interior and the Task Force to consider subsequent environmental compliance as the details of implementation became known. An environmental impact statement (INT/FES 86-22) for Grass Valley Creek Debris Dam, a key sediment control feature of the program, was filed August 18, 1986.

An environmental assessment/environmental impact report is currently being prepared for the fish habitat improvement plan on the mainstem Trinity River. The environmental impact report will satisfy requirements of the California Environmental Quality Act. The mainstem plan involves constructing side-channels, feathered banks, pools, and riffles. Also, the Bureau of Land Management (BLM) completed an environmental impact statement on the Redding Resource Area Management Plan in 1992. This plan includes land acquisition by BLM and restoration of damaged lands in the Grass Valley Creek watershed and will complement the role of Buckhorn Dam in reducing the transport of sediment into the mainstem. Site specific pre-implementation Federal and State environmental reviews have been carried out for the projects completed to date.

The program extension would facilitate carrying out actions already identified and environmentally evaluated in the 1983 environmental statement and subsequent efforts described above. Should there be additional environmental concerns, unforeseen at this time, then additional Federal and State environmental compliance would be carried out.

ACTION 1
INSTITUTIONAL ORGANIZATION

OBJECTIVE

The objective of this action is to provide the continued organizational structure necessary to coordinate, implement, and evaluate the restoration program. These activities are critical to ensure integrated and coordinated action that is cost-effective. Development of an educational program and the Trinity County Grant Program are included under this action.

DESCRIPTION

The Field Office, established in 1986, is the main clearinghouse for technical and administrative business. This office is staffed by Reclamation and Service personnel having expertise in contracting, engineering, construction, program administration, watershed management, and fish and wildlife management. This action is devoted not only to program administration and coordination, but also to implementation and evaluation. Restoration activities are coordinated through this office in consultation with a 14-member Task Force which is represented by a Technical Coordinating Committee (TCC). The Field Office documents progress annually in reports that are used to prioritize future efforts. Detailed budgets are prepared for current Federal fiscal years and more general budgets for two subsequent years. Work is either carried out by the Field Office or under contract or agreement with various public and private entities. The contracts and agreements are administered by the Field Office. The Field Office also serves as a focal point for public involvement and education. In 1989 and 1990, the Field Office carried out a mid-program review to assess progress and achieve consensus on which actions have the greatest potential to improve the anadromous fishery resource. Results from the review were used to identify priority work to be completed by the end of FY 95. In addition, the review indicated that all necessary restoration work could not be accomplished because of insufficient time and funds.

EXPECTED ACCOMPLISHMENTS BY SEPTEMBER 30, 1995

The Field Office in cooperation with the Task Force will have facilitated development of specific action plans and partial completion of tasks as described under the various Program Actions. The decline of Trinity River salmon and steelhead habitat experienced during the 1960's-1980's will have been curbed and restoration partially accomplished.

A three-year agreement with the Trinity County Office of Education, that was executed in 1990 to develop and implement an environmental curriculum for grades kindergarten through 12, will have been completed with funding of approximately $300,000.

The Trinity County Grant Program started in 1989 to allow for projects from the private sector, will have resulted in important additions to the overall program at an expenditure of about $500,000. These benefits will include

ACTION 2
CONTROL GRASS VALLEY CREEK SEDIMENT LOAD

OBJECTIVES

The objectives of this action are:

1. Reduce the amount of decomposed granitic sand entering the Trinity River.

2. Collect and remove sediment already deposited in Grass Valley Creek.

3. Prevent additional material from entering Grass Valley Creek by stabilizing actual and potential erosion sites.

4. Improve Grass Valley Creek as a fishery.

DESCRIPTION

Available information indicates that one of the major causes of anadromous fish declines in the mainstem Trinity River is degradation of spawning, rearing, and holding pool habitat from sedimentation with granitic sand from the Grass Valley Creek watershed. Reduction of sediment loading from this source is a top restoration program priority. Within the Grass Valley Creek watershed there are about 16,000 acres of highly erodible decomposed granitic lands.

The current approach to sediment control is to trap and store sand behind Buckhorn Dam and collect transported sand in pools near the mouth of Grass Valley Creek that are periodically dredged. In addition, soil stabilization activities are being conducted throughout the basin to reduce erosion and sedimentation. The importance of this action was recognized in 1980 with the enactment of Public Law 96-335 that authorized construction and partial funding of Buckhorn Dam and the collection pools but provided no money for ground restoration measures.

Without implementation of an effective sediment reduction program on Grass Valley Creek, additional large releases of reservoir water on the mainstem Trinity River would likely be required to continually flush material downstream to provide and maintain adequate fish habitat.

EXPECTED ACCOMPLISHMENTS BY SEPTEMBER 30, 1995

Buckhorn Dam

Construction was authorized in 1980 and completed in 1990. The dedication was held May 16, 1991. The reservoir has a storage capacity of 1.8 million cubic yards of soil and an expected life of about 40 years given average runoff conditions. Because of its location the dam captures sediment from 27 percent of the watershed. Public Law 96-335 provided $5.3 million for construction and $1.6 million for operation and maintenance. The total cost of the dam was approximately $20 million.

planting of trees, shrubs, and grasses. In addition, extensive non-point sheet and rill erosion areas would be treated. The acquired land would be transferred to BLM for inclusion in its resource management plan for the Redding Resource Area. A management plan emphasizing sediment would be developed in cooperation with involved agencies and interested publics. In conjunction with the treatment measures, a public education program would be implemented to heighten public awareness of the erosion caused by off-road vehicle and other land use.

ADDITIONAL WORK REMAINING

Buckhorn Dam

During the first few years, some minor construction and maintenance work may be needed. Long-term maintenance will be carried out by Reclamation.

Sand Dredging

Additional sediment collection pools may be constructed to keep sediment from entering the Trinity River until land treatment measures become fully effective. However, given limited funding, major effort would be applied to keeping soils on the ground through watershed stabilization measures. Existing ponds will be dredged whenever they become 25 to 50 percent full. Dependence on the collection ponds should decrease as land treatment measures take effect.

Watershed Restoration

Since the bulk of the land restoration measures would be implemented under the existing program, authorization efforts would focus on phasing out the watershed stabilization effort, completing large-scale plantings of trees and shrubs, and implementing procedures to evaluate the effectiveness of the overall sediment control program.

Concurrent with acquisition and restoration, the Task Force would continue to encourage responsible government agencies to fully apply land management regulations on the acreage in the watershed that would not be acquired.

ESTIMATED COSTS FOR WORK REMAINING

Watershed Stabilization Phase Out, Large scale Plantings and Implementation of Evaluation Program	=	$1.5 million
TOTAL	=	$1.5 million

BENEFITS

Reduction of sediment loading of Grass Valley Creek and the Trinity River would result in improved fish habitat in both streams. Spawning, rearing, and holding areas would be more productive thereby increasing anadromous fish populations. Improved land management practices would also result in increased benefits to wildlife and a longer useful life for Buckhorn Dam and Reservoir.

ACTION 3
REHABILITATE THE MAINSTEM TRINITY RIVER BELOW LEWISTON DAM

OBJECTIVE

The objective of this action is to reshape the mainstem channel to increase anadromous fish habitat to support populations of salmon and steelhead approximating historical levels of higher abundance.

DESCRIPTION

Since completion of the Trinity Division of the CVP in 1963, flows below Lewiston Dam have been inadequate to maintain the habitat for sustained high level production of salmon and steelhead. Lack of high volume flushing flows accompanied by increased sediment loading has gradually resulted in elimination of historic high quality spawning riffles, rearihg areas, and holding pools. Encroachment of riparian vegetation has intensified the problem by solidifying the sediment deposits that have accumulated along the river banks into steep berms. As a result, most of the historic fish production capability has been lost particularly above the North Fork.

The mainstem channel restoration program consists of expanding the quantity and quality of those habitat factors determined to be limiting fish production. Available data indicate that lack of rearing habitat for juvenile salmonids is the most crucial habitat limiting factor at this time. Program emphasis is on developing this type of habitat. However, the program also includes development of important spawning and holding (pool) habitat. The preferred approach is to utilize flows to the greatest possible extent. Channel modification will enhance the value of the flows eventually determined to be made available for fishery purposes. Periodic maintenance of the habitat will be required to ensure continued effectiveness.

Removing sand and other fine sediment deposits from the section of river from Lewiston Dam to the North Fork is also a high priority. This sand has smothered spawning riffles and rearing areas and filled pools. Two approaches designed to reduce sedimentation are being evaluated - high volume flushing flows emulating spring runoff and removal by dredging. Use of "flushing" flows has yet to be fully evaluated. Dredging small volumes of sediments from pools appears practical but large-scale application would be expensive. It's likely a combination of all three methods will be needed to establish and maintain the required habitat.

Until Buckhorn Dam was completed in 1991, the Task Force was precluded from performing habitat work downstream from the mouth of Grass Valley Creek. Although a substantial amount of work has been done in the 5 miles between Lewiston Dam and Grass Valley Creek, considerable work remains to be done on the 32 miles further downstream. The concept is to evaluate each type of potential habitat development as to effectiveness and capacity to function at a variety of flows. After each potential measure has been evaluated, an *optimum large-scale level of the various types will be constructed. Most of

ACTION 4
REHABILITATE TRIBUTARY FISHERIES BELOW LEWISTON DAM

OBJECTIVE

The objective of this action is to restore degraded habitat conditions and depressed anadromous fish populations in mainstem tributaries, other than the South Fork, below Lewiston Dam.

DESCRIPTION

Habitat conditions in most tributaries of the Trinity River have significantly deteriorated due to fires, floods, formation of migration barriers, timber harvest, road construction, diversions, mining and other watershed uses. These factors have resulted in substantial increases in sedimentation, erosion of stream banks, loss of riparian cover, and other conditions that have led to reduced fish production.

Corrective measures based on extensive habitat and biological surveys include: barrier removal for fish passage, sediment control, construction of holding and rearing areas, screening water diversions, revegetation of streambanks, and construction of spawning areas. Periodic maintenance of rehabilitated areas will be required to ensure continued effectiveness.

This action is closely related to Action 5 - Rehabilitate Watersheds Below Lewiston Dam and failure to accomplish Action 5 could seriously reduce the benefits of the habitat improvements. Therefore, implementation of Actions 4 and 5 are being closely coordinated. Methods vary due to the site-specific needs. The tributary streams are the major producers of natural steelhead but also contribute to the production of salmon. The larger North Fork and New River are the primary refuges for the Basin's dwindling natural stocks.

EXPECTED ACCOMPLISHMENTS BY SEPTEMBER 30, 1995

The past decline of fishery habitat will have been curbed. Habitat and biological assessments will have been carried out on approximately 250 miles of 35 tributary streams. These assessments in conjunction with the watershed inventories completed under Action 5 will have been used to prepare specific project designs having a high potential for longevity and utilization by fish. Habitat improvement projects will have been completed on about 30 miles of streams representing about 1.5 percent of the estimated habitat improvement potential. Project success will be gauged by fish population and habitat monitoring in approximately 7 index streams. Most of the habitat work will have been on Federally managed lands and the Service and BLM provided substantial planning input.

ADDITIONAL WORK REMAINING

From October 1995 through September 2000, habitat improvement projects would be carried out on approximately 190 miles of 35 streams. More effort will be

ACTION 5
REHABILITATE TRIBUTARY WATERSHEDS BELOW LEWISTON DAM

OBJECTIVE

The objective of this action is to reduce sediment loading of tributary streams, other than the South Fork and Grass Valley Creek, in order to decrease the amount of sediment transported into the mainstem Trinity River and to improve the fish habitat of these streams.

DESCRIPTION

Tributary watersheds within the Trinity River Basin are characterized by typically steep terrain covered with coniferous forest, much of which is available for commercial timber harvesting. Heavy logging has occurred in many areas during the past four decades. Watershed disturbance from timber harvest activities, road construction, mining, floods, and fires has resulted in a substantial increase in soil erosion and sediment yield to streams. This increase in sediment yield has degraded fish habitat both in the mainstem Trinity River and tributaries.

The approach to achieving watershed stabilization is to conduct assessments to identify actual and potential erosion sites, develop cost-effective (cost/cubic yards) soil stabilization projects, and implement projects in an efficient manner. Tributaries above the North Fork have higher priority than lower streams because the upper section of the mainstem is the most seriously degraded and has less flow for channel flushing purposes. Few of these watersheds consist of decomposed granite and much is government owned. No purchase of land is anticipated.

EXPECTED ACCOMPLISHMENTS BY SEPTEMBER 30, 1995

The trend of watershed degradation will have been curbed. Approximately 28 watersheds will have been surveyed to locate, describe, and rank existing and potential erosion areas on the basis of sediment yield and cost-effectiveness. Projects will have been completed in all 28 watersheds at an approximate cost of $2.1 million. These projects include road repairs, stabilization of landslides, removal of unneeded roads, and revegetation of denuded areas. Emphasis was placed on preventing the occurrence of new erosion sites as well as rehabilitation. The above work would represent about 55 percent of the available cost-effective projects.

ADDITIONAL WORK REMAINING

From October 1995 through September 1998, the additional 45 percent of the soil stabilization projects would be implemented. Numbers of treated sites per watershed will range from 5 to more than 100. Total treatment costs per watershed could range from $10,000 to $600,000.

ACTION 6
REHABILITATE THE SOUTH FORK TRINITY RIVER AND WATERSHED

OBJECTIVES

The objectives of this action are to:

1. Facilitate restoration and/or maintenance of the South Fork mainstem and tributaries that contain anadromous fish habitat by reducing sediment loading through a program of watershed stabilization that treats actual and potential erosion sites.

2. Curb the decline of natural salmon and steelhead populations by implementing an extensive program of in-stream habitat improvement measures.

3. Improve fish habitat conditions in the lower Trinity and Klamath Rivers as well as the estuary by reducing sediment loading.

DESCRIPTION

The South Fork is the largest free flowing wild river in California with over 90 stream miles. The river basin comprises approximately 1/3 of the total Trinity River Basin. Historically, the watershed produced salmon and steelhead populations such that in 1980 the lower 56 mile segment was classified as a Wild and Scenic River. The South Fork was included in the restoration program because of its great potential to contribute to increased fish production which would help to offset some of the losses on the mainstem.

A combination of factors has resulted in a serious degradation of fish habitat and a corresponding decline in fish production. Fires, water diversions, past logging, road building on private and public lands, and floods have interacted to reduce habitat quality and quantity. Downstream and ocean commercial, sport, and net fish have also impacted stocks to an unknown amount. Some concerned groups have recommended that the summer steelhead and spring run chinook be considered for listing under the Threatened and Endangered Species Act.

In 1964, a storm caused a tremendous amount of damage to the lower 1/3 of the basin filling pools, covering spawning riffles, and generally destroying riparian habitat. Flood impacts to the upper 2/3 of the basin were not as severe because much of this area had not been logged and otherwise developed. In the nearly 30 years since the storm occurred, most of the areas lightly impacted by it have recovered. The lower 1/3 of the river is still subject to pulses of sediment from adjacent landslides, channel-stored sediment, and damaged tributaries. This situation will likely persist for the next 20 years.

The California Department of Water Resources (DWR) (1991) estimates that the South Fork contributes over 2.5 million cubic yards of sediment each year to the lower mainstem Trinity River. This figure is equal to or greater than the

consultant to suggest restoration-oriented activities for the South Fork Watershed. This effort is expected to facilitate cooperation among the involved public agencies and private sector. An important aspect of the consultant's report is to provide a mechanism for restoration and stewardship on private land.

The Forest Service will continue to use timber sale receipts to fund watershed and fisheries improvement projects as a regular management practice. Additional funding will continue to be sought throughout the Forest Services' budget process and special programs. Cooperative funding will continue to be sought from the private landowners through development of coordinated resource management plans. It is unlikely, however, that much work will have been completed on private land by the end of the program in 1995.

ADDITIONAL WORK REMAINING

By the end of FY 95, enough planning and field work will have been accomplished to have halted the degradation of fish habitat on public lands and made significant strides towards a recovery. Some of the needed prevention and restoration measures will be in place on public lands and nominal progress made on private lands. Remaining work would involve continued implementation of watershed stabilization, sediment prevention, and fish habitat improvement projects on a large-scale. The initial focus of the work would be on the 2/3 of the basin that is in relatively good condition. Efforts would be expanded to carry out cost-effective (cost per cubic yard) projects on private lands under cooperative ventures. Measures to achieve increased fish utilization of improved habitat would also be implemented.

ESTIMATED COSTS FOR WORK REMAINING

Improvement of Fish Habitat, Watersheds, and Bioenhancement of Natural Stocks	=	$ 4.0 million

BENEFITS

Completion of all proposed activities would produce good to excellent stream habitat throughout the Basin. This would result in the increased production of salmon and steelhead on a long-term basis. The expected reduction in sediment loading would also decrease the habitat degradation occurring in the lower Trinity River, Klamath River, and Klamath estuary.

ACTION 7
MODERNIZATION OF THE TRINITY RIVER FISH HATCHERY

OBJECTIVES

The objectives of this action are to:

1. Modernize and expand facilities to produce sufficient numbers of high quality outmigrants to mitigate for lost anadromous fish production that occurred above Lewiston Dam.

2. Develop operating procedures and policies designed to minimize impacts to natural fish.

DESCRIPTION

The Trinity River Hatchery began operation in 1962. However, it was soon recognized that the facilities needed improvements to ensure consistent production of high quality fish. Some of the most serious deficiencies were: Inadequate aeration for the water supply; lack of predator fencing; earthen raceways that resulted in frequent and serious disease problems; poor release facilities to the river; and lack of adequate water temperature control. Because of these deficiencies, modernization of the hatchery was one of the Task Force's highest priorities.

Clair Engel Reservoir is located behind Trinity Dam and provides water to the Trinity and Sacramento Rivers. Lewiston Reservoir is situated below Trinity Dam and above the Trinity River Hatchery. Because of its location, Lewiston Reservoir serves as a regulatory reservoir. Water temperature largely is a function of diversions to the Sacramento River system and is critical for fish culture at the hatchery. During periods of egg incubation, water temperatures may be colder than ideal in the winter and on occasion too warm or too cold for growout during the summer months. Undesirable water temperatures may result in retarded growth, disease and mortality of eggs or fish. Temperature curtains are being installed in the reservoir to temporarily alleviate this situation while a permanent solution is being investigated.

It is essential that the operation of the hatchery be closely coordinated with harvest management and restoration activities to minimize competition of hatchery fish with naturally produced fish. Currently, hatchery production constitutes the majority of the spawning escapement occurring within the Trinity River Basin.

EXPECTED ACCOMPLISHMENTS BY SEPTEMBER 30, 1995

Modernization of the hatchery began in 1987 and was completed in 1991. Approximately $3 million of the total $8 million cost was provided by the restoration program. Work included the following: New water supply piping and aeration; predator fencing; concrete raceways; water heaters for improved incubation of steelhead eggs, improved release facilities; fish food storage facilities; and road and visitor improvements.

ACTION 8
INTERIM USE OF ARTIFICIAL PROPAGATION

OBJECTIVE

The objective of this action is to use interim artificial propagation techniques to accelerate restoration of depressed natural salmon and steelhead stocks to fully utilize available habitat while minimizing adverse impacts on existing fish populations. Emphasis will be on restoring declining and depressed natural stocks.

DESCRIPTION

Interim artificial propagation is a management approach that includes assessment of habitat conditions to determine its capability to support the various life stages of targeted fish species. Artificial propagation methods are used when current fish populations are found to be significantly lower than the capacity of the habitat to support fish.

The typical procedure is the following: Trap adults; take, fertilize, and hatch eggs; and rear young fish to sizes appropriate for release into the streams of origin. Hatching of eggs and rearing of young fish can either be done at streamside or in off-site facilities. Prior to release, fish are marked with an adipose fin clip and code-wire tagged. This permits evaluation of the contribution of each project to harvest and spawning escapement.

Care is exercised to refrain from interim artificial propagation unless there is a high probability that existing natural populations will not be adversely impacted. Projects can be carried out either by public or private entities, or jointly.

This action is closely related to Actions 4, 5, and 6, and has not yet been widely used in the Trinity River program because of the difficulty in collecting adequate habitat and population data to justify application.

EXPECTED ACCOMPLISHMENTS BY SEPTEMBER 30, 1995

The policy and procedures for use of interim artificial propagation under the restoration program were developed in 1991. Prior to that only two projects had received program funding. Positive results involving late-run fall chinook on lower Trinity River tributaries were achieved by the Service and the Hoopa Valley Tribe. By the end of September 1995 it is reasonable to expect that 4 additional projects would be implemented.

To provide the technical basis for these projects the following measures will have been taken: 1) Fish habitat assessments including estimates of juvenile fish abundance will be available for target streams and 2) assessments of watershed stability for the target watersheds will be made. Information from actions 4, 5, and 6 will be utilized in project selection.

ACTION 9
PLAN AND CONDUCT A WILDLIFE MANAGEMENT PROGRAM

OBJECTIVE

The objective of this action is to enhance selected wildlife habitats and representative habitat indicator species to partially mitigate for adverse impacts caused by construction of the Trinity River Division and to assist in designing fish habitat and watershed restoration projects that are compatible with wildlife values.

DESCRIPTION

Approximately 20,000 acres of riparian and various upland habitats were inundated by Trinity and Lewiston Reservoirs. Additional changes occurred below Lewiston Dam because of flow modifications in the Trinity River. At the time the restoration program was being developed, impacts to deer were of primary concern. Mitigation efforts, therefore, initially focused on this species.

Approximately 30 plant and animal species have now been listed as threatened or endangered within the Trinity Basin since completion of the Project. Protection of these species as well as those having potential for listing is a prudent course of action and a factor in the development of wildlife projects. The Endangered Species Act mandates that any fishery or watershed project will fully consider impacts to these species.

Wildlife habitats have been divided into two broad ecological categories: 1) Riparian (stream and river corridor) and 2) upland terrestrial. The portion of the Trinity River riparian habitat affected most by management of the Trinity Division is the 40 miles of river immediately downstream from Lewiston Dam. Year around controlled releases have reduced flood peaks, leading to stable conditions ideal for riparian proliferation. Many miles of riparian habitat were lost to inundation resulting from construction of Trinity and Lewiston Dams.

Upland habitats inundated by Trinity and Lewiston Reservoirs have been permanently lost to deer and other wildlife species. Consequently, compensation for this lost habitat would have to come through management of existing upland habitat.

Because of primary emphasis on the fishery and watershed stabilization elements of the restoration program, development and implementation of the wildlife component have languished. It took until 1992 to develop a comprehensive plan to adequately assess compensation needs. Prior to this, projects were developed individually and implementation was limited.

EXPECTED ACCOMPLISHMENTS BY SEPTEMBER 30, 1995

An extensive survey of the riparian habitat extending almost 40 miles down

ACTION 10
MONITOR ANADROMOUS FISH STOCKS AND FISHERIES

OBJECTIVES

The objectives of this action are to monitor and evaluate:

1. The abundance of adult and juvenile anadromous fish populations in the Trinity River Basin.

2. The various fisheries and their management as related to stock status.

3. The effectiveness of in-basin fish habitat restoration and artificial production activities.

DESCRIPTION

A consistent program of basic data collection and analysis in the mainstem and major tributaries is being developed to achieve the above objectives. Activities include the following: Monitoring the annual runs of fish in the Basin and determining the contributions the various stocks make to the commercial, sport, and Indian fisheries; estimating the timing and magnitude of the outmigration of juvenile fish; determining and evaluating juvenile salmonid life histories; relating fish abundance to habitat use; and assessing the condition of natural stocks. These activities are used to evaluate the responses of fish populations to the habitat improvements implemented under other program actions.

Information developed under this action is also used to evaluate the fish production contributions made by the Trinity River Hatchery and any other artificial rearing operations that are established. Recommendations are also made to the restoration program, hatchery management, and harvest management. Management evaluation has included the following: Expanded and refined fish marking; experimental hatchery releases correlated with flows from Lewiston Reservoir to reduce competition with natural fish; predation reduction measures; assessments of fish condition and survival during downstream migration; harvest management; and other analyses to enhance the production of natural fish.

The above data collection and processing effort is carried out by the California Department of Fish and Game, the Service, and the Hoopa Valley Tribe.

EXPECTED ACCOMPLISHMENTS BY SEPTEMBER 30, 1995

An effective system of information collection, analysis, and evaluation has been implemented that will be refined by the scheduled end of the program. Data, analyses, evaluations, and recommendations will continue to be made to restoration, hatchery, and harvest managers. In addition, the status and responses of the fish populations partial implementation of the habitat restoration actions will have been evaluated.

OPERATION AND MAINTENANCE

OBJECTIVES

1. Maintain Program Features

2. Evaluate Effectiveness of Restoration Program
   a. Fish population monitoring
   b. Fish habitat monitoring

Funding for these objectives would be provided through Reclamation as part of its O&M budget for the CVP.

TRINITY RIVER FISH & WILDLIFE MANAGEMENT PROGRAM

THREE YEAR ACTION PLAN

FISCAL YEARS 1994-1996

SEPTEMBER 1993

PREPARED BY THE
TRINITY RIVER TASK FORCE
TECHNICAL COORDINATING COMMITTEE

Explanation Sheet

As this action plan goes to press in September 1993, Congress is deciding whether or not to extend the authorization for P.L. 98-541 by five years and 21.9 million dollars. It was decided to show a fiscal year 1996 budget in this action plan so that we would have a head start on the process should Congress extend this program.

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TRINITY RIVER BASIN FISH AND WILDLIFE RESTORATION PROGRAM - SUMMARY 3 YEAR BUDGET

ACTION ITEM	CONSTRUCTION & REHABILITATION ESTIMATED COSTS ($1000) FY 1994	FY 1995	FY 1996*	OPERATION & MAINTENANCE ESTIMATED COSTS ($1000) FY 1994	FY 1995	FY 1996*
ACTION ITEM 1 - INSTITUTIONAL ORGANIZATION	1528	1476	1470	200	200	200
ACTION ITEM 2 - CONTROL GRASS VALLEY CREEK SEDIMENT LOAD	2100	1800	1800	270	250	250
ACTION ITEM 3 - REHABILITATION OF MAINSTEM TRINITY RIVER	600	630	780	235	145	135
ACTION ITEM 4 - REHABILITATE MAINSTEM TRIBUTARIES BELOW LEWISTON	400	215	115	20	20	30
ACTION ITEM 5 - REHABILITATE AND MAINTAIN WATERSHEDS BELOW LEWISTON	765	540	40	50	75	75
ACTION ITEM 6 - REHABILITATE SOUTH FORK TRINITY RIVER	496	520	155	50	50	50
ACTION ITEM 7 - HATCHERY MODIFICATION	93	102	0	0	0	0
ACTION ITEM 8 - INTERIM USE OF ARTIFICIAL PROPAGATION TECHNIQUES BELOW LEWISTON	110	30	0	0	100	100
ACTION ITEM 9 - FORMULATE AND CONDUCT A WILDLIFE MANAGEMENT PROGRAM	432	230	207	10	15	20
ACTION ITEM 10 - MONITOR ANADROMOUS FISH STOCKS	0	0	0	1923	2010	2006
TOTALS	6524	5543	4567	2758	2865	2866

* Additional authorization is required for FY 1996 funding

Trinity River Basin Fish and Wildlife
Restoration and Evaluation

INTRODUCTION

In March 1982, the Trinity River Basin Fish and Wildlife Task Force adopted an 11-point Trinity River Basin Management Program. This program established goals to restore and maintain fish and wildlife resources of the Trinity River Basin to levels which occurred prior to construction of Trinity River Division, Central Valley Project (circa 1960).

In October 1984, Congress passed, and the President signed, Public Law 98-541. This act, commonly referred to as the Trinity River Basin Fish and Wildlife Act, embodied the 11 items established in the 1982 program document, and authorized the expenditure, over a 10-year period, of $57 million for the execution of the 11 directives. The Act required the creation of a 14 agency Task Force to assist in carrying out the program.

Shortly after its establishment, the 14-member Task Force directed its working group, the Technical Coordination Committee, to develop a detailed 3-year action plan. The first three year action plan was completed in January 1988 and covered Federal fiscal years 1988 through 1990. This document updates the plan for fiscal years 1994, 1995, and 1996. These are the last two years of the program as presently authorized and the first year of a potential extension of the program.

The Technical Coordinating Committee was charged with the responsibility to design the action plan to meet five major goals developed in the 1982 program document:

1. To improve a sub-standard hatchery facility at Lewiston, California to meet its mitigation goals.

2. To restore natural salmon and steelhead production in the Trinity River and tributaries downstream from Lewiston Dam.

3. To make fishery harvest management recommendations which are compatible with the goal of restoring natural salmon and steelhead production in the Trinity River and its tributaries downstream from Lewiston Dam.

4. To provide compensation for deer and other wildlife losses resulting from inundation of land by Trinity River Project reservoirs and impacts due to streamflow reductions.

5. To recommend land management practices to restore and maintain watersheds in the Trinity River Basin.

The following objectives support the five major program goals:

OBJECTIVES

1. Anadromous Fish: To restore and maintain Trinity River Basin anadromous fish stocks to pre-Trinity River Division, CVP (circa 1960) levels.

    1.1. Determine interim target levels.

        1.1.1. Determine interim target levels.

        1.1.2. Determine long-term target levels.

    1.2. Determine what type and quantities of habitat needed to realize 1.

        1.2.1. Determine types and quantities of habitat that currently exist.

        1.2.2. Determine what additional types and quantities of habitat are needed.

    1.3. Develop and execute habitat restoration and maintenance program based on findings from 1.2.

    1.4. Determine target levels for artificial production in both mainstem and important tributaries.

        1.4.1. Determine interim target levels.

        1.4.2. Determine long-term target levels.

    1.5. Determine what artificial facilities are needed to realize 1.

        1.5.1. Determine capabilities and constraints of currently existing facilities in the Trinity River Basin for producing anadromous fish.

        1.5.2. Determine what additional types and numbers of facilities are needed.

    1.6. Develop and execute artificial facility restoration and augmentation programs based on 1.5. findings.

    1.7. Evaluate program and effectiveness of restoration and maintenance efforts carried out under 1.3. and 1.6.

        1.7.1. Define levels of precision and frequency desired for evaluation.

1.7.2. Identify data needs (kinds, amounts, quality) required to meet defined levels and frequencies.

1.7.3. Plan and execute required data acquisition and analysis needed to complete evaluations.

1.8. Develop a long-term operation and maintenance program to sustain benefits achieved during the authorized program that ends in FY 1996.

1.8.1. Determine required activities.

1.8.2. Determine appropriate funding sources.

1.9. Support efforts of the various fisheries management agencies to develop and implement effective and long-term harvest management plans for the Trinity River Basin anadromous fish stocks.

1.9.1. Coordinate with the Klamath River Basin Management Program and others to implement interim and long-term management programs for anadromous fish stocks pursuant to Public Law 99-552 (Klamath and Trinity Basins Restoration Act).

2. Wildlife: To restore and enhance wildlife habitats and populations within the Trinity River Basin.

2.1. Formulate a comprehensive wildlife management and enhancement plan by primary ecosystems.

2.1.1. Determine extent of riparian ecosystem loss or modification due to the effects of the Trinity River Project. Design and implement specific habitat rehabilitation or population enhancement measures.

2.1.2. Determine extent of upland ecosystem loss or modification due to watershed development, human encroachment, and fire suppression activities. Design and implement specific habitat rehabilitation or population enhancement measures.

2.2. Formulate and implement a deer winter range rehabilitation plan through habitat manipulation.

2.3. Design and implement recovery plan projects for sensitive, threatened and endangered species.

2.4. Coordinate with revegetation projects conducted under action items 5 and 6 (objective 3.2) to enhance wildlife habitat or forage opportunities.

3. Watershed Management and Rehabilitation: To reduce the rate of sedimentation into the Trinity River and tributaries in order to accelerate the effectiveness of fish and wildlife habitat restoration.

   3.1. Identify site-specific treatment areas by conducting watershed condition assessments.

      3.1.1. Inventory significant watershed erosion sites.

      3.1.2. Design treatment prescriptions to reduce existing or potential levels of sedimentation.

      3.1.3. Rank treatments by site-specific cost effectiveness and by evaluating benefits to fish and/or wildlife habitats, or water quality beneficial uses.

   3.2. Develop revegetation prescriptions for landslide and other barren surfaces.

      3.2.1. Enhance wildlife forage and habitat.

      3.2.2. Increase forest resource productivity.

   3.3. Prevent future excessive land-use sedimentation or resource damage.

      3.3.1. Assist federal and state land management agencies in monitoring watershed development activities.

The Trinity River Restoration Program Action Plan is used as an informational and budgeting document to inform the Task Force and the Secretary of the Interior of work that is needed and the funding levels required for each action item. Once Congress approves the annual budget for the Restoration Program, the plan will then serve as the Program's Direction for implementation by the Field Office at the approved budget level.

The program is administered by the Field Office in close coordination with the Technical Coordinating Committee. Specific tasks are carried out by various public and private entities under contracts and/or agreements with the Field Office. Also, there is a Grant Program funded by the restoration project but administered by Trinity County. This program is intended to identify and accomplish worthy activities not already accounted for in the existing overall plan.

The purpose of incremental annually revised action plans is to prioritize restoration activities in a logical sequence, serve as a budget document, function as a working guide to meet the goals developed by the Task Force in the 1982 program document, and facilitate making program refinements as additional information becomes available.

Tasks under the various action items were developed in response to actual restoration, habitat manipulation or data needs and in consideration of estimated funds remaining in the program. Every effort has been made to insure that no duplication of activities being exerted by other program activities occurs.

This action plan is a dynamic document and is updated annually. Those action items not accomplished in the current year will be re-evaluated for funding and prioritized in subsequent years.

TRINITY RIVER BASIN RESTORATION PROGRAM
PRIORITY STATUS OF ACTION ITEMS
September 1991

ACTION ITEM	CONSTRUCTION AND REHABILITATION	OPERATION AND MAINTENANCE
1. INSTITUTIONAL ORGANIZATION	1	1
2. CONTROL GRASS VALLEY SEDIMENT LOAD[1]	2	2
3. REHABILITATION OF MAINSTEM TRINITY RIVER[1]	2	2
4. REHABILITATION OF MAINSTEM TRIBUTARIES BELOW LEWISTON	8	6
5. REHABILITATE AND MAINTAIN WATERSHEDS BELOW LEWISTON	4	5
6. REHABILITATE SOUTH FORK TRINITY RIVER	7	7
7. HATCHERY MODIFICATION	5	-[4]
8. INTERIM USE OF ARTIFICIAL PROPAGATION BELOW LEWISTON	9	9
9. FORMULATE AND CONDUCT WILDLIFE MANAGEMENT PROGRAM	6	8
10. MONITORING ANADROMOUS FISH STOCKS[2]	-	4
11. STREAM AND LAND USE EVALUATIONS[3]	-	-

[1] Action Items 2 and 3 have been given equal top priority.
[2] All monitoring costs have been shifted to O&M.
[3] Action Item 11 has been incorporated into the other action items.
[4] Not a restoration program responsibility.

AC[redacted]TEM 1 - INSTITUTIONAL ORGANIZATION

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	COSTS ($1000) FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION PROGRAM								
1.	Program Administration	Trinity River Basin Field Office	BOR	Core costs include staff, building rental, travel, materials and supplies, equipment, other contracts for administrative support, CPA, Denver Office and Regional Office Overhead.	None			
	A. Bureau of Reclamation					800	800	800
	B. Fish and Wildlife Service					587	590	609
	C. Technical Coordinating Committee Chairman Support	Trinity County		TCC minutes and briefings position papers		11	11	11
2.	Information and Education Program	Trinity River Basin Field Office	BOR	Develop an information and education program for schools and outside interests. Work to be coordinated with Klamath Task Force program.	Klamath River Restoration Task Force Educational Program	25	25	25
3.	Grant Program	Basinwide	TC	Implement a grant program to allow funding for individuals or entities with restoration ideas.	None	100	50	25
4.	Klamath Symposium	Basinwide	Hoopa FWS BOR	A symposium to discuss the challanges of restoring the fishery in the Klamath Basin is planned for the spring of 1994.	None	5	-	-
	SUBTOTAL					1528	1476	1470
OPERATION AND MAINTENANCE PROGRAM								
1.	Core Costs	Trinity River Basin Field Office	BOR	Core costs include staff, equipment, materials and supplies.	None	200	200	200
	SUBTOTAL					200	200	200

ACTION ITEM 2 - CONTROL GRASS VALLEY CREEK SEDIMENT LOAD

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION PROGRAM								
1.	Buckhorn Mountain Debris Dam	Grass Valley Creek	BOR	Construct Buckhorn Mountain Dam to control Grass Valley Creek sediments.	Watershed management work in Grass Valley Creek Watershed; Sand Dredging Program		Completed	
2.	Grass Valley Creek Coordinated Resource Management Plan (CRMP)	Grass Valley Creek Watershed	TC RCD SCS BLM	Develop the CRMP	None	100	100	0
	A. Implement Selected CRMP Options		BLM	Implement options from CRMP process		0	0	300
3.	Stabilization of Grass Valley Creek		SCS BLM BOR RCD	Designs and field work to stabilize decomposed granitic materials.	None	2000	1700	1500
	SUBTOTAL					2100	1800	1800

ACTION ITEM 2 - CONTROL GRASS VALLEY CREEK SEDIMENT LOAD

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	FY 1994	FY 1995	FY 1996
OPERATION AND MAINTENANCE PROGRAM								
1.	Sand Dredging	Grass Valley Creek	DWR BOR	Removal of trapped sediments from retention pools	Watershed management work in Grass Valley Creek watershed; Grass Valley Creek Debris Dam	150	150	150
2.	Maintenance of Grass Valley Creek Watershed Stabilization Measures	Grass Valley Creek Watershed	SCS	Maintenance of watershed rehabilitation measures for decomposed granite areas.	None	100	100	100
3.	Hamilton Property Maintenance	Grass Valley Creek	DWR BOR	Complete long range plan and annual maintenance		20	0	0
	SUBTOTAL					270	250	250

ACTION ITEM 3 - REHABILITATION OF MAINSTEM TRINITY RIVER

COSTS ($1000)

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION								
1.	Side Channel Development	Trinity River Hatchery to North Fork Trinity River	BOR FWS BLM CDFG FS	Locate suitable sites for creation of optimum flow for spawning and rearing channels. Develop designs, specifications, and implement.	None	200	250	350
2.	Spawning/Rearing Riffle Restoration							
	A. Suction Dredging	Trinity River Hatchery to North Fork Trinity River	BOR FWS	Remove embedded decomposed granitic material through suction dredging. Pilot project has been completed.	Trinity River Flow Evaluation Study (FWS)	50	0	0
	B. Riffle Restoration	Trinity River Hatchery to North Fork Trinity River	BOR FWS DWR FS	Replace spawning gravels and boulders; create rearing/ resting areas for adults and juveniles in identified areas; monitor results.	Stockpiling of gravels	50	50	50
3.	Pool Restoration and Stockpiling Gravel							
	A. Dredge or Construct Holding Pools at Deadwood, Old Bridge, Peterson, etc.	Trinity River Hatchery to North Fork Trinity River	DWR BOR	Dredge or construct sediment holding pool habitat as necessary.	Gravel stockpiling	50	50	50
	B. Screen and Stockpile New Gravel Source	Trinity River Hatchery to North Fork Trinity River	DWR BOR	Locate suitable materials processing, and stockpiling.	Dredging	30	30	30

ACTION ITEM 3 - REHABILITATION OF MAINSTEM TRINITY RIVER

COSTS ($1000)

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION								
4.	Selective Channel Modification							
	A. Implement Channel Modification Projects	Trinity River Hatchery to North Fork Trinity River	FWS/ DWR/ BOR FS BLM	Implement viable projects on mainstem Trinity River such as feather edges. Projects may involve changing existing riparian habitat to develop rearing area. Assess completed projects. Includes biological assessments.	Side Channel Development	200	250	300
5.	Economic Analysis of the Trinity River	Trinity River Basin	TC	Analyzing the economic value of the Trinity River to Trinity County.	Flow Maintenance Study	10	0	0
6.	Install CIMIS/CDEC Station at Lewiston		DWR BOR TC	This weather station's information will be used to update the input data for temperature model.		10	0	0
	SUBTOTAL					600	630	780

ACTION ITEM 3 - REHABILITATION OF MAINSTEM TRINITY RIVER

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	COSTS ($1000) FY 1994	FY 1995	FY 1996
OPERATION AND MAINTENANCE								
1.	Side Channel Maintenance	Trinity River	BOR FWS	When damaged by high flows, replace or repair side channels.	Side channel development	15	15	15
2.	Riffle Maintenance	Trinity River	FWS DWR BOR	When damaged by high flows replace or repair existing riffles by placement of gravel and boulders.	Screening and stockpiling of gravel and boulders.	20	20	20
3.	Pool Maintenance Sand Dredging	Trinity River	BOR DWR	Sand dredging of existing retention pools to maintain capacity for capturing decomposed granitic materials.	Construction of Sediment Retention Pools	100	100	100
4.	Channel Habitat and Flow Maintenance Development	Trinity River Hatchery to North Fork Trinity River	FWS HVT BOR	Assess viability of extensive channel modification and associated maintenance flows in mainstem Trinity River to increase rearing habitat.	Channel Modifications Projects	100	10	0
	SUBTOTAL					235	145	135

[redacted]ITEM 4 - REHABILITATE MAINSTEM TRIBUTARIES BELOW LEWISTON [redacted] COSTS ([redacted]

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION PROGRAM								
1.	North Fork Trinity River Basin Salmon and Steelhead Habitat Improvement	North Fork; East Fork North Fork	USFS	Assess opportunities for restoring/improving salmon and steelhead habitat. Primary emphasis will be placed on increasing natural production capacity of anadromous salmonids. Options for modifying habitat will be evaluated, and if determined to be feasible, projects will be designed and implemented. Assessements will also evaluate opportunities for artificial interim propagation.	None	50	25	0
2.	Canyon Creek Basin Salmon and Steelhead Habitat Improvement	Canyon Creek Drainage	USFS	Same as line Item #1 above	None	80	50	10
3.	Horse Linto Creek Basin Salmon and Steelhead Habitat Improvement	Horse Linto Creek	USFS	Same as line Item #1 above	None	20	20	20
4.	Browns Creek Basin Salmon and Steelhead Habitat Improvement	Browns Creek and Tributaries	CDFG USFS TC	Same as line Item #1 above	None	10	10	10
5.	Willow Creek Basin Salmon and Steelhead Habitat Improvement	Willow Creek	USFS WCCSD	Same as line Item #1 above	None	20	20	20
6.	Assess and Implement Salmon and Steelhead Improvement Projects	Mill Creek; Supply Creek; Hostler Creek; Scottish Creek; Tish Tang Creek; Campbell Creek	HVT USFS	Same as line Item #1 above	None	25	20	10

ACTION ITEM 4 - REHABILITATE AND MAINTAIN TRIBUTARIES BELOW LEWISTON

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	COSTS ($1000) FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION PROGRAM								
7.	Assess and Implement Salmon and Steelhead Improvement Projects	Weaver Creek; Rush Creek; Indian Creek;	BLM CDFG USFS TC DWR	Same as line Item #1 above	None	120	30	20
8.	Assess and Implement Salmon and Steelhead Improvement Projects	Manzanita Creek Big Bar Creek; Dutch Creek; Reading Creek; Price Creek; Deadwood Creek; Soldier Creek; Conner Creek	USFS BLM	Same as line Item #1 above	None	70	25	25
9.	Modify/Remove Migration Barriers	Coon Creek	USFS	Modify barrier at the mouth of Coon Creek	None	5	15	0
	SUBTOTAL					400	215	115

ACTION ITEM 4 - REHABILITATE AND MAINTAIN TRIBUTATRIES BELOW LEWISTON

COSTS ($1000)

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	FY 1994	FY 1995	FY 1996
OPERATION AND MAINTENANCE PROGRAM								
1.	Maintenance of Mainstem Tributary Rehabilitation Projects	Basinwide Tributaries	BOR FWS	Habitat improvement projects for anadromous fish will be maintained and replaced as necessary.	None	20	20	30
	SUBTOTAL					20	20	30

ACTION ITEM 5 - REHABILITATE AND MAINTAIN WATERSHEDS BELOW LEWISTON

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	COSTS ($1000) FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION PROGRAM								
1.	Stabilization of Decomposed Granitics Excluding Grass Valley Creek							
	A. Watershed Stabilization	Rush Creek	SCS USFS TC	Minimize Accelerated Erosion	None	45	15	0
	B. Watershed Stabilization	Hoadley Gulch	SCS BLM TC	Minimize Accelerated Erosion	None	100	0	0
	C. Watershed Stabilization	Deadwood Creek	SCS BLM TC	Minimize Accelerated Erosion	None	0	0	0
	D. Watershed Stabilization	Indian Creek	SCS BLM TC	Minimize Accelerated Erosion	None	250	240	0
2.	Development of Revegetation Stock Supplies	Basinwide	USFS	Develop supplies of vegetation stocks for use in watershed rehabilitation projects.	Watershed Rehabilitation Projects Basinwide	80	55	40
3.	Coordinated Resource Management Plan (CRMP)	Mill Creek	HVT	Develop and implement watershed rehabilitation plan.	None	0	0	0
4.	Assessment and Implementation of Watershed Stabilization	Weaver Creek	BLM USFS SCS	Evaluate watershed condition and problems and identify rehabilitation needs implement program.	None	20	25	0
5.	Assessment and Implementation of Watershed Stabilization	West Weaver Creek	BLM SCS USFS	Evaluate watershed condition and problems and identify rehabilitation needs implement program.	None	13	0	0

ACTION ITEM 5 - REHABILITATE AND MAINTAIN WATERSHEDS BELOW LEWISTON

COSTS ($1000)

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION PROGRAM								
6.	Assessment of Watershed	Horse Linto Creek	USFS	Implement rehabilitation measures	None	18	14	0
7.	Watershed Stabilization	New River	USFS	Implement rehabilitation measures	None	0	0	0
8.	CRMP - Willow Creek	Willow Creek	USFS	Implement rehabilitation measures	None	51	35	0
9.	CRMP - Tish Tang Creek	Tish Tang Creek	HVT USFS	Design and implement stabilizatio projects.	None	13	0	0
10.	Erosion Control	Tom Lang Creek	BLM SCS	Assess need for rehabilitation	None	0	0	0
11.	Erosion Control	Canyon Creek	USFS TC	Implement streambank and road stabilization projects	None	50	40	0
12.	Erosion Control	Big French Creek	USFS	Implement streambank and road stabilization projects	None	10	0	0
13.	Erosion Control	North Fork Trinity River	USFS TC	Implement streambank and road stabilization projects	None	40	35	0

ACTION ITEM 5 - REHABILITATE AND MAINTAIN WATERSHEDS BELOW LEWISTON

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	COSTS ($1000) FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION PROGRAM								
14.	Erosion Control	Reading Creek	BLM SCS TC	Implement streambank and and road stabilization projects	None	0	18	0
15.	Assessment and Implementation of Watershed Stabilization	Browns Creek	BLM SCS USFS	Implement rehabilitation measures	None	25	20	0
16.	Hoopa Valley Sediment Monitoring	HVT Tributaries	HVT	Sediment monitoring of spawning habitat	None	0	0	0
17.	Mobile Sediment Study	Basinwide	USFS	Mobile sediment study in 10 tributaries	None		Completed	
18.	Rehabilitation Assessment	Campbell Creek	USFS HVT	Implement rehabilitation measures	None	8	5	0
19.	Erosion Control	Scotish Creek	HVT	Road culvert repair	None		Completed	
20.	Erosion Control	Union Hill Rd. Weaver Creek	TC	Stabilization of County Road	None	0	0	0
21.	Assessment and Correction of Road Repair Work	Soldier Creek	USFS	Implement rehabilitation measures	None	12	5	0
22.	Assessment and Implementation of Watershed Control Measures Creeks	Maple and Dutch Creeks	USFS SCS	Inventory, plan, and implment rehabilitation measures	None	10	10	0

ACTION ITEM 5 - REHABILITATE AND MAINTAIN WATERSHEDS BELOW LEWISTON

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	COSTS ($1000) FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION PROJECT								
23.	Watershed Stabilization	Little Browns Creek	USFS	Implement Rehabilitation Projects	None	10	18	0
24.	Sediment Reduction	Price Creek	USFS	Inventory and treat cost-effective erosion sites	None	0	0	0
25.	Sediment Reduction	Rowdy Bar	USFS	Inventory and treat cost-effective erosion sites	None	0	0	0
26.	Sediment Reduction	Sailor Creek	USFS	Inventory and treat cost-effective erosion sites	None	0	0	0
27.	Sediment Reduction	Eagle Creek	USFS	Inventory and treat cost-effective erosion sites	None	0	0	0
28.	Sediment Reduction	Connor Creek	USFS	Inventory and treat cost-effective erosion sites	None	5	0	0
29.	Sediment Reduction	Big Bar Creek	USFS	Inventory and treat cost-effective erosion sites	None	0	0	0
30.	Sediment Reduction	Bidden Creek Mill Creek	USFS	Treat cost-effective erosion sites	None	5	5	0
	SUBTOTAL					765	540	40

ACTION ITEM 5 - REHABILITATE AND MAINTAIN WATERSHEDS BELOW LEWISTON

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	COSTS ($1000) FY 1994	FY 1995	FY 1996
OPERATION AND MAINTENANCE								
1.	Maintenance of Watershed Erosion Control Measures	Basinwide	SCS HVT USFS	Maintenance of established erosion control measures.	None	50	75	75
	SUBTOTAL					50	75	75

ACTION ITEM 6 - REHABILITATE SOUTH FORK TRINITY RIVER

COSTS ($1000)

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION PROGRAM								
1.	Watershed Improvement	Road 1S01 (Klondike Road)	USFS/ HF	Culvert Replacement and Slide Repair	None	-	-	-
2.	Watershed Improvement	Little Creek	USFS/ HF	Road Surfacing	None	17	-	-
3.	Watershed Improvement	Wild Mad Road	USFS/ YB	Road Improvement	None	-	-	-
4.	Watershed Improvement	Butter Creek	USFS/ HF	Stream Rehabilitation	None	105	-	-
5.	Watershed Improvement	Middle South Fork	USFS/ HF	Road Obliteration, Closure, Site Reconstruction	None	16	100	0
6.	Watershed Improvement	Lower South Fork Tributaries	USFS/ SR	Road, Landslide and Riparian Rehabilitation	None	70	42	50
7.	Watershed Improvement	Dark Canyon Creek	USFS/ YB	Watershed Rehabilitation	None	10	12	-
8.	Watershed Improvement	East Fork South Fork	USFS/ YB	Watershed Rehabilitation	None	10	12	-
9.	Watershed Improvement	Headwaters South Fork	USFS/ YB	Watershed Rehabilitation	None	18	0	-

ACTION ITEM 6 - REHABILITATE SOUTH FORK TRINITY RIVER

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	COSTS ($1000) FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION PROGRAM								
10.	Watershed Improvement	Prospect Creek	USFS/ YB	Watershed Rehabilitation	None	15	-	-
11.	Watershed Improvement	Upper Hayfork Creek	USFS/ YB	Watershed Rehabilitation	None	15	-	-
12.	Watershed Improvement	Upper South Fork	USFS/ YB	Watershed Rehabilitation	None	10	12	-
13.	Tributary Improvement	Happy Camp Creek	USFS/ YB	Habitat Typing	None	-	-	-
14.	Tributary Improvement	Red Mountain Creek	USFS/ YB	Habitat Typing	None	3	-	-
15.	Tributary Improvement	Hayfork	USFS/ HF	Riparian Planting	None	15	12	-
16.	Tributary Improvement	Upper Hayfork Creek	USFS/ HF	Habitat Improvement	None	-	-	-
17.	Tributary Improvement	East Fork South Fork	USFS/ YB	Habitat Improvement	None	-	12	-
18.	Tributary Improvement	Penney	USFS/ YB	Habitat Improvement	None	-	-	-
19.	Tributary Improvement	South Fork	USFS/ SR	Riparian and Gravel Bar Planting	None	20	12	5

ACTION ITEM 6 - REHABILITATE SOUTH FORK TRINITY RIVER

COSTS ($1000)

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	FY 1994	FY 1995	FY 1996
20.	Watershed Improvement	Tule Creek	USFS/ HYFK RCD	Road Obliteration, Closure and Reconstruction	None	20	0	0
21.	Fish Habitat Improvement	Tule Creek	USFS/ HYFK RCD	Stream Channel Rehabilitation	None	42	0	0
22.	Watershed Improvement	Butter Creek	USFS/ HYFK RCD	Road Closure, Obliteration and Site Reconstruction	None	60	0	0
23.	Watershed Improvement	Upper South Fork	USFS/ HYFK RCD	Road Closure and Site Reconstruction	None	0	30	0
24.	Fish Habitat Improvement	Upper South Fork	USFS/ HYFK RCD	Stream Channel Rehabilitation	None	-	35	-
25.	Watershed Improvement	Lower Hayfork	USFS/ HYFK RCD	Road Obliteration, Closure and Site Reconstruction	None	0	65	0
26.	Fish Habitat Improvement	Rattlesnake Creek	USFS/ HYFK RCD	Channel Restoration	None	-	26	-
27.	Watershed Improvement and Water Conservation on Private Land	South Fork Area	USFS SCS RCD TC	Planning and Future Projects to be Determined.	Pacific Watershed Reports	50	150	100
	SUBTOTAL					496	520	155

ACTION ITEM 6 - REHABILITATE SOUTH FORK TRINITY RIVER

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	COSTS ($1000) FY 1994	FY 1995	FY 1996
OPERATION AND MAINTENANCE								
1.	Watershed Erosion Control Maintenance	South Fork Watershed	USFS CDFG	Maintenance of erosion control measures including culverts, vegetative plantings, slide stabilization, etc.	Activities under action item 5 in appropriate watersheds.	30	30	30
2.	Maintenance of Habitat Restoration Projects on Mainstem South Fork	Mainstem South Fork	USFS CDFG	Maintenance of restoration measures including cover, shelter, removal of obstructions.	None	10	10	10
3.	Maintenance of Habitat Restoration Projects on South Fork Tributaries	South Fork Tributaries	USFS CDFG	Maintenance of restoration measures including cover, shelter, and removal of obstructions.	None	10	10	10
4.	Gravel Ripping - Mainstem Hyampom Valley to Big Slide Creek	Upper Reach South Fork	USFS CDFG	Maintenance of fishery spawning gravels through ripping.	None	0	0	-
5.	Coon Creek to Mouth of South Fork	Lower Reach South Fork	USFS CDFG	Maintenance of fishery spawning gravels through ripping.	None	0	0	-
	SUBTOTAL					50	50	50

ACTION ITEM 7 - HATCHERY MODERNIZATION

COSTS($1000)

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION PROGRAM								
1.	Trinity River Hatchery Modification-Phase I	Lewiston	BOR CDFG	Modification of existing aerator and aerator structure; plumbing and sewer system modification; new water supply piping; obliterate existing raceways and construct new concrete rearing ponds; construct new fishway release facility and access ramp; new hatchery access road; predator fencing; guardrail.	None		Completed	
2.	Trinity River Hatchery Modification-Phase II	Lewiston	BOR CDFG	New hatchery access road; predator fencing; guardrail; hatchery building improvements; rearing ponds; fishway extension; traffic pattern control; visitor features; incubation heaters	None		Completed	
3.	Trinity River Hatchery Evaluation	Lewiston	CDFG USFWS BOR	To evaluate the effectiveness, operation and product of the Trinity River Hatchery steelhead production. Includes an analysis of fish health in the Trinity River.		93	102	0
	SUBTOTAL					93	102	0
OPERATION AND MAINTENANCE						Not funded under Restoration Program		

ACTION ITEM 8 - INTERIM USE OF ARTIFICIAL PROPAGATION TECHNIQUES BELOW LEWISTON

COSTS ($1000)

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECTS	FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION PROGRAM								
1.	Hoopa Valley Reservation Late Fall Chinook Run Restoration	Streams within boundaries of Hoopa Valley Reservation	HVT	Trap, spawn late fall chinook, rear progeny to yearling release size (10/lb), tag and release at preselected sites within square. Project will restore late fall Chinook runs in streams lying within square portion of Hoopa Reservation using selected outplants of yearling produced there. Outplant location will be identified based on data developed by Hoopa Fisheries Department. Fish produced will be marked (adipose fin clip and binary coded-wire tag) prior to release to assess contribution to fisheries and spawning escapements. Project emphasis will be on the use of natural stocks from streams within the square as brood stock sources.	None	0	0	0

ACTION ITEM 8 - INTERIM USE OF ARTIFICIAL PROPAGATION TECHNIQUES BELOW LEWISTON

COSTS ($1000)

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECTS	FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION PROGRAM								
2.	Horse Linto Creek Late Fall Chinook Run Restoration ***	Horse Linto Creek	CDFG	Trap, spawn late fall chinook, rear progeny to fingerling (90/lb) or yearling (10/lb) release, tag and release in Horse Linto Creek. Project will restore late fall chinook run in Horse Linto Creek using fingerlings and/or yearlings produced there. Fish produced will be marked (adipose fin clip and binary coded-wire tag) prior to release to assure contribution to fisheries and spawning escapements. Project emphasis will be on the use of natural stocks from Horse Linto Creek as brood stock sources.	None	0	0	0
3.	Bioenhancement Needs for South Fork Trinity River	South Fork Basin	CDFG USFS	Project will assess needs for interim artificial propagation techniques in South Fork Trinity Basin for fall/spring chinook. If needs are identified, implemention will be in accordance with the polocies and guidelines developed by the Technical Coordinating Committee and approved by the Task Force.	Action Item 6 Action Item 5	40	0	0

ACTION ITEM 8 - INTERIM USE OF ARTIFICIAL PROPAGATION TECHNIQUES BELOW LEWISTON

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DECRIPTION OF PROJECT	COMPANION PROJECTS	COSTS ($1000) FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION PROGRAM								
4.	Bioenhancement Needs for North Fork Trinity River	North Fork Trinity River and Canyon Creek	CDFG USFS FWS	Project will assess needs for interim artificial propagation techniques in the North Fork Trinity Basin for fall/spring Chinook. If needs are identified, implementation will be in accordance with policies and procedures developed by the Technical Coordinating Committee and approved by the Task Force.	Action item 4	0	0	0
5.	Bioenhancement Needs for New River Basin Utilization Assessment	New River Basin	FWS CDFG	Project will assess needs for interim artificial propagation techniques in the New River Basin for Chinook Salmon. If needs are identified, implementation will be in accordance with policies and procedures developed by the Technical Coordinating Committee and approved by the Task Force.	Action Item 4	0	0	0

ACTION ITEM 8 - INTERIM USE OF ARTIFICIAL PROPAGATION TECHNIQUES BELOW LEWISTON

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECTS	COSTS ($1000) FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION PROGRAM								
6.	Bioenhancement Needs for Selected Minor Trinity Basin Tributaries	Selected Minor Trinity Basin Tributaries	CDFG FWS USFS	Project will assess needs for interim artificial propagation techniques for fall/late fall Chinook Salmon. If needs are identified, implementation will be in accordance with policies and procedures developed by the Technical Coordinating Committee and approved by the Task Force.	Action Item 4	30	30	0
7.	Bioenhancement Needs for Mainstem	Selected Areas Lewiston to North Fork	USBR FWS CDFG USFS	Project will assess needs for interim artificial propagation for natural spring and fall chinook in selected side-channels. If needs are identified, implementation will be in accordance with policies and procedures developed by the Technical Coordinating Committee and approved by the Task Force.	Action Item 3 Action Item 5	40	0	0
	SUBTOTAL					110	30	0

ACTION ITEM 8 - INTERIM USE OF ARTIFICIAL PROPAGATION TECHNIQUES BELOW LEWISTON

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECT	COSTS ($1000) FY 1994	FY 1995	FY 1996
OPERATION AND MAINTENANCE								
1.	Tagging and Releasing for Interim Artificial Propagation Facilities	Basinwide	CDFG	Fishery stocks to be used in artificial propagation will be tagged for monitoring purposes.	None	0	50	50
2.	Maintenance of Interim Artificial Propagation Facilities	Basinwide	CDFG HVT	Facilities established under the artificial propagation program will be maintained as needed.	None	0	50	50
SUBTOTAL						0	100	100

ACTION [redacted]9 - WILDLIFE PROGRAM

COST [redacted]00)

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECTS	FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION PROGRAM								
1.	Management Indicator Species Restoration							
	A. Riparian Habitat of the Mainstem	Mainstem Trinity	USFS	Mitigation projects for riparian habitat indicator species adversely affected by reservoir filling and downstream changes to riparian habitat.	None	20	20	20
	B. Upland Habitat Assessment	Reservoir Area	USFWS USFS	Mitigation analysis for upland habitat indicator species adversely affected by reservoir filling.	None	0	0	0
	C. Implement Restoration Projects	Basinwide	Multi-agency	Mitigation and enhancement projects identified primarily from Item 1 (B).	None	48	40	50
2.	Trinity Lake Bald Eagle Telemetry Study	Reservoir Area	USFS	Telemetry monitoring of bald eagles nesting around reservoirs.	None	6	6	6
3.	Falcon/Bald Eagle	Basinwide	USFS	Nesting success monitoring of bald eagle and peregrine falcon utilizing Trinity River riparian areas downstream.	None	5	5	0
4.	Evaluate Vegetation Management for Deer Benefits	Basinwide	CDFG	Evaluate short to long-term benefits for deer of routinely prescribed crushing and burning of decadent vegetation.	None	40	0	0
5.	Assess Trinity River Project Impacts to Fisher	Riparian Areas	USFS	Evaluate population density and utilization of riparian areas by Fischer, a candidate species for Federal listing of endangerment.	None	35	35	35
6.	Hayfork Deer Herd Winter Habitat Project	South Fork Trinity	CDFG	Completion of telemetry monitoring of individuals comprising the Hayfork area deer herd.	None	0	0	0

ACTION ITEM 9 - WILDLIFE PROGRAM

COSTS ($1000)

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECTS		FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION PROGRAM									
7.	Characterization of Deer Habitat East Trinity Lake	Reservoir Areas	CDFG	Determine population size and migration habitats of deer blocked from historic migration routes upon reservoir filling.	None		20	0	0
8.	Spring/Wetland Developement	HYFK/ WVVL RD	USFS	Modifying natural springs and expanding wetland areas to promote greater wildlife carrying capacity	None	HYFK: WVVL:	12 10	8 8	8 0
9.	Deer Vegetation Management								
	A. Prospect Peak	T33N R8-9W, Sec 7, 12	BLM	Crushing and burning decadent brush.			0	0	0
	B. China Bridge	HYFK RD	USFS	Oak Woodland Enhancement			16	12	12
	C. Burner Springs	T33N R10W, Sec 7	BLM	Crushing and burning decadent brush.			0	0	0
	D. Logan Gulch	Big Bar Ranger District	USFS	Crushing and burning decadent brush.			20	0	0
10.	Goshawk Population Inventory and Habitat Assessment/Enhancement	WVVL RD	USFS	Locate, evaluate and enhance habitat for breeding pairs of Northern Goshawk and Willow Flycatcher.	None		9	10	0
11.	Furbearer Nest and Den Construction	Lower Trinity River	USFS/ SRNF	Construct 37 den/cover structures for furbearing carnivors affected by Trinity Division and Forest Management. Monitor utilization.	None		50	30	30

ACTION ITEM 9 - WILDLIFE PROGRAM

COST (000)

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BREIF DESCRIPTION OF PROJECT	COMPANION PROJECT	FY 1994	FY 1995	FY 1996
CONSTRUCTION AND REHABILITATION PROGRAM								
12.	New River Deer Herd Management	Big Bar Ranger District	Multi	Assess the utilization of historic habitat by the New River deer herd.	None	6	0	0
13.	Western Pond Turtle Habitat Use and Distribution	Mainstem and South Fork	USFS	Inventory and monitor existing populations of turtle; prescribed enhancement; coordinate with fishery projects along mainstem.	None	20	0	0
14.	Riparian Wildlife Inventories and Vegetation Manipulation	South Fork Trinity	USFS	Evaluate the quality of riparian habitat along portions of the South Fork for avain and other wildlife uses.	None	30	0	0
15.	Yellow-legged Frog and Western Pond Turtle Flow Management Investigation	Mainstem	USFS	Assess the impacts that seasonal high flow releases timing, temperature, etc. have on these 2 species. Prescribe flow management alternative.	None	35	30	30
16.	Upland Species Bird Forage and Cover Enhancement	Trinity Lake/Weaverville Ranger District	USFS	Assess and enhance habitat areas for upland wildlife around the denuded areas of Trinity Lake.	None	10	10	10
17.	Peregrine Survey and Monitoring	Trinity Lake	USFS	Locate, monitor, and enhance existing potential nesting ledges for peregrine falcon.	None	10	10	0
18.	Western Pond Turtle	Trinity/Lewis Lakes	USFS	Inventory populations in small tributaries surrounding lakes. Prescribe management changes.	None	6	6	6
19.	Summer Fawning Condition Survey	Trinity Lake Area	USFS	Assess the condition of does and fawns in selected summer birthing areas. Prescribe management improvements and habitat enhancement.	None	24	0	0
	SUBTOTAL					432	230	207

ACTION ITEM 9 - WILDLIFE PROGRAM

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BREIF DESCRIPTION OF PROJECT	COMPANION PROJECT	COST ($1000) FY 1994	FY 1995	FY 1996
	OPERATION AND MAINTENANCE							
1.	Maintenance of Habitat Rehabilitation Projects	Basinwide	USFS BLM SCS CDF CDFG	Repair as necessary, projects implemented for wildlife habitat.		10	15	20

ACTION ITEM 10 - MONITOR ANADROMOUS FISH STOCKS

COSTS ($1000)

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECTS	FY 1994	FY 1995	FY 1996
OPERATION AND MAINTENANCE PROGRAM								
1.	Salmon Spawner Surveys in the Upper Trinity River Basin	Portions of Trinity Basin Between Lewiston and North Fork Trinity River	CDFG	Project will generate annual information on numbers and distribution of Chinook and Coho spawners in this portion of the basin; data on the age and size composition of the runs, and incidence and distribution of marked hatchery fish will also be determined each year.	None	211	221	233
2.	Capture and Coded-wire tagging of Naturally Produced Chinook Salmon in the Trinity River Basin	Trinity Basin Below Lewiston Dam	CDFG	Project will entail the capture and coded-wire tagging of naturally produced presmolt Chinook Salmon from selected areas of the Trinity River system. Recovery of returning fish will be accomplished by other investigations involved with Harvest and Spawner Escapement evaluation.	Annual Run Size, Harvest and Spawner Escapement estimates for Trinity River Basin Chinook and Coho Salmon and Steelhead (DFG); other DFG ocean and Klamath Basin recovery programs (ongoing)	177	186	195
3.	Life History, Distribution, Run Size and Harvest of South Fork Trinity River Steelhead	South Fork Trinity Basin	CDFG	Project will determine life history patterns; and annual Run Size, Angler Harvest and Spawner Escapements of Spring and Fall Steelhead returning to the South Fork Trinity System.	Life History, Distribution, Run Size and Harvest of Spring Chinook Salmon in the South Fork Trinity River Basin	207	217	228

ACTION ITEM 10 - MONITOR ANADROMOUS FISH STOCKS

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECTS	COSTS ($1000) FY 1994	FY 1995	FY 1996
OPERATION AND MAINTENANCE PROGRAM								
4.	Annual Run Size, Harvest and Spawner Escapement Estimates for Trinity River Basin Chinook and Coho Salmon and Steelhead	Trinity Basin Below Lewiston Dam	CDFG	Project will generate annual run size, angler harvest and spawner escapement figures for Chinook and Coho Salmon and Steelhead within the Trinity River Basin.	None	402	422	464
5.	Survival and Contributions to the Fisheries and Spawner Escapements made by Chinook and Coho Salmon produced at Trinity River Hatchery	Trinity River Hatchery	CDFG	Project will evaluate contributions to the fisheries and spawner escapements of Chinook and Coho Salmon produced at Trinity River Hatchery, based on releases of recoveries of coded-wire tagged fish at the hatchery. Data for areas outside the hatchery will be generated by the elements of Action Item 10, and by non-TRHP programs.	Annual Run Size, Harvest and Spawner escapement estimates for Trinity River Basin Chinook and Coho Salmon and Steelhead (CDFG); other DFG Klamath Basin Recovery Programs	159	167	175
6.	Survival and Contributions to the Fisheries and Spawner Escapements Made by Steelhead Produced at Trinity River Hatchery	Trinity Basin Below Lewiston Dam	CDFG	Project will evaluate contributions to the fisheries and spawner escapements of Steelhead produced at Trinity River Hatchery, based on released and recoveries of fin-clipped fish at the hatchery. Data for areas outside the hatchery will be generated by the elements of Action Item 10, and by non-TRHP programs.	Annual Run Size, Harvest and Spawner escapement estimates for Trinity River Basin Chinook and Coho Salmon and Steelhead Basin (DFG); other DFG Klamath Basin recovery Programs	66	69	72

ACTION ITEM 10 - MONITOR ANADROMOUS FISH STOCKS

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECTS	COSTS ($1000) FY 1994	FY 1995	FY 1996
OPERATION AND MAINTENANCE PROGRAM								
7.	Life History, Distribution, Run Size and Harvest of Spring Chinook Salmon in the South Fork Trinity River Basin	South Fork Trinity Basin	CDFG	Project will determine life history patterns and annual run size, angler harvest and spawner escapements of spring Chinook Salmon returning to the South Fork Trinity system.	Life History Distribution, Run Size and Harvest of South Fork Trinity River Steelhead	195	205	215
8.	Run Size and Timing and Harvest of Salmon and Steelhead in Selected Tributaries.	Trinity Basin Below Lewiston Dam	CDFG	Project will entail seasonal operation of weirs on selected streams to determine numbers, composition, and timing of annual runs of Salmon and Steelhead in selected tributary basins. When appropriate, fish captured at the weirs will be tagged to obtain estimates of angler harvest in these areas.	Salmon Spawner Surveys Above and Including the North Fork Trinity (DFG); Salmon Spawner Surveys in Balance of Trinity Basin (DFG)	0	0	0
9.	Salmon Spawner Surveys, balance of Trinity Basin (excluding Hoopa Square and New River)	Trinity Basin Below North Fork Trinity	CDFG	Project will generate annual information on numbers and distribution of Chinook and Coho Spawners in these areas of the basin. Data on the size and age composition of the runs, and incidence and distribution of marked hatchery fish will also be determined each year.	None	0	0	0

ACTION ITEM 10 - MONITOR ANADROMOUS FISH STOCKS

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECTS	COSTS ($1000) FY 1994	FY 1995	FY 1996
OPERATION AND MAINTENANCE PROGRAM								
10.	Special Projects	Trinity Basin-wide	CDFG	Provide for the compilation, analysis, write-up/editing of multi-year accumulations of previously collected file data pertaining to Trinity River Basin salmonids that are beyond the scope of current project activites.	None	0	0	0
11.	Outmigrant Trapping	Trinity River at Willow Creek	FWS	Evaluate production and timing of outmigrant salmon and steelhead juveniles at the Willow Creek site on the mainstem Trinity River.		105	109	115
12.	Fish Monitoring on Hoopa Valley Reservation	Hoopa Indian Tribe Square	HVT FWS	Chinook spawning surveys and Spring Chinook harvest monitoring on reservation.	DFG Monitoring	94	94	0
13.	Fish Monitoring	New River	FWS	Evaluate run size, timing, distribution of spring chinook and summer steelhead stocks.	None	166	174	183
14.	Macro-Invertebrate Analysis	Trinity River and Tributaries	FWS	Develop baseline information and monitor short-term and long-term response to watershed restoration, temperature control, and instream habitat restoration.	Watershed Restoration	23	23	23
15.	Fish Health Monitoring	Trinity River Hatchery and Trinity River	FWS	Monitor fish health of hatchery released fish and emigrating naturally produced fish.	None	23	29	29

ACTION ITEM 10 - MONITOR ANADROMOUS FISH STOCKS

COSTS ($1000)

ACTIVITY	TITLE	PROJECT AREA	AGENCY	BRIEF DESCRIPTION OF PROJECT	COMPANION PROJECTS	FY 1994	FY 1995	FY 1996
OPERATION AND MAINTENANCE PROGRAM								
16.	Genetic Stock Identification	South Fork, New River, Trinity River, Trinity River Hatchery	FWS	Evaluate spring and fall chinook stocks.	None	23	17	6
17.	Temperature Montoring	Lewiston and Trinity Reservoirs	FWS	Monitor temperatures of reservoirs (vertical profiles)	None	10	10	0
18.	Harvest Analysis (CWT)	Trinity Basin-wide	FWS	Cooperative with Klamath Program, analysis of CWT returns to determine harvest results.	None	14	15	16
19.	Horse Linto Creek Basin Salmon and Steelhead Habitat Improvement.	Horse Linto Creek	USFS	Monitoring to evaluate natural production and effects of interim artificial propagation.	None	24	26	26
20.	Willow Creek Basin Salmon and Steelhead Habitat Improvement.	Willow Creek	USFS WCCSD	Monitoring to evaluate natural production and opportunities for interim artificial propagation.	None	24	26	26
	SUBTOTAL					1923	2010	2006

COUNTY OF TRINITY
AGENDA ITEM
[redacted]ATER MATTERS

AGENDA NO._____

TO: BOARD OF SUPERVISORS

FROM: Tom Stokely for **John Alan Jelicich, Planning Director**

Meeting Date:	Subject: Trinity River Restoration Program Mainstem Fish Habitat Improvement Program
10/06/93	

RECOMMENDED ACTION:

Staff recommends that the Board authorize the Chairman to send letters to the Army Corps of Engineers, California Department of Fish and Game, North Coast Regional Water Quality Control Board and the U.S. Environmental Protection Agency requesting assistance with, and review of, the Trinity River Restoration Program Mainstem Fish Habitat Improvement Program.

Staff also recommends that the Board take a position that a combined Environmental Impact Report/Environmental Impact Statement be completed prior to construction of any new side channels [redacted]ank feathers.

[redacted]SCUSSION:

Supervisor Arnold Whitridge and Associate Planner Tom Stokely floated the Trinity River on 9/28/93 from Ponderosa Lane to Steel Bridge. They examined the Browns Mountain complex of side channels and feather edges. Both felt that as a result of the Trinity River Restoration Program (TRRP) projects, there are existing and potential significant adverse effects on water quality and wetlands in and adjacent to the Trinity River. The Browns Mountain complex is immediately adjacent to a very active spawning area for spring chinook salmon. Many dozens of spring chinook were observed during the float trip, which was approximately 2 1/2 hours long.

Essentially, a bulldozer ran for approximately one mile adjacent to the Trinity River in an extremely sensitive wetland area. In one area a large hole was excavated in a cattail marsh within a few feet of the river. The side channel projects are considered an "accident" by staff of the Bureau of Reclamation and the U.S. Fish and Wildlife Service, who were supposed to oversee the project from a biological and engineering basis. The Bureau of Land Management was the agency which actually completed the project with funding provided by the Trinity River Task Force. Many tons of fine silt from the wetlands are poised to enter the Trinity River, and there are already plumes of sediment beginning to fill in holding pools downstream of the sites. Many active salmon redds have been marked in the area by the Department of Fish and Game.

[redacted]ARD ACTION: Date:_____ Approves [ ] Denies [ ] Accepts [ ] Rejects [ ]
Authorizes Signature: CH [ ] CAO [ ] PW [ ] PLN [ ]
[redacted]No.:_____ SH [ ] Other_____
Crossfile:_____ Refers to:_____
Ck Minutes:_____ Res/Ord No._____ Roll Call Vote_____
Letter(s):_____
Copies:_____ Other:_____

There is a need for an independent review of all TRRP side channel and bank feather projects for the following reasons:

1. To determine if there are significant "loaded guns" which will impact beneficial uses of the Trinity River this winter and in future years.

2. To determine if there is any mitigation which can be performed prior to winter which will minimize adverse impacts to beneficial uses of the Trinity River.

3. To initiate a truly cooperative effort with both public agencies and the public in the review and implementation of similar projects to ensure that there are not any more "mistakes".

In addition to the immediate concerns with existing projects, the Board of Supervisors has provided a fee waiver for the as-yet unfinished Environmental Assessment/Environmental Impact Report for the Trinity River Mainstem Fish Habitat Improvement Program. Planning staff was able to assist in the release of a draft EA/EIR, with public hearings before the Planning Commission, but there is not staffing available to complete the document. Based on the number and complexity of responses to the draft EA/EIR it is evident that it will be a very time consuming project and could possibly end up in court.

Given that the mainstem program has resulted in violation of the Clean Water Act, issuance of a Cease and Desist Order, and possibly the issuance of a Cleanup and Abatement Order from the North Coast Regional Water Quality Control Board, it is clear that an Environmental Assessment under the National Environmental Policy Act (NEPA) will be legally inadequate. While the legal technicalities are not clear to staff, the Board's approval of a legally inadequate document would not only be a waste of General Fund staff time, but it could expose Trinity County to expensive litigation by parties opposed to the mainstem program.

The Board of Supervisors should take a position that a full EIR/EIS be completed prior to construction of any new side channels or bank feathers. Trinity County should be the lead agency for the EIR/EIS (without fee waivers so that staff costs are covered), pursuant to the California Environmental Quality Act. The Hoopa Valley Tribe and/or the U.S. Fish and Wildlife Service should be the lead agencie(s) pursuant to NEPA.

Trinity County should assume a position of leadership in this issue, since the other agencies in the TRRP appear to have various objectives and perceptions which do not necessarily overlap with the best interests of Trinity County and the Trinity River. The Browns Mountain complex of "restoration projects" is an embarrassment to every agency involved in the TRRP. Every effort should be made to fully comply with the law and ensure that this type of "mistake" never happens again.

PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
NORTH COAST REGION
5550 SKYLANE BLVD. SUITE A
SANTA ROSA, CA 95403
PHONE: (707) 576-2220

October 4, 1993

Mr. Roger K. Patterson, Regional Director
United States Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825

Dear Mr. Patterson:

As follow-up to my letter of September 17, 1993 we have accomplished the following:

On September 21-22 we met with some of the Trinity River Project staff and local interests to review the river-side projects and their status;

Concluded that the projects violated several provisions of the Basin Plan and justify issuance of a Cleanup and Abatement Order; and

Laid the groundwork for a pair of meetings in Weaverville on October 28, 1993 (the day before your next Technical Coordinating Committee meeting) for two purposes:

- To provide a single place for the Task Force members to submit the report required by our Cleanup and Abatement Order -- along with any background descriptions and supplemental photographic slides, etc. that may be helpful in understanding the relationship of the 1993 work to the longer-term objectives of the Project; and

- To provide an opportunity for the agencies which will regulate any future projects to describe the steps which we will need to follow to regulate such activities.

We will provide your office with a Notice of the finalized details for such meetings as soon as possible.

Enclosed is a copy of our Cleanup and Abatement Order No. 93-105.

If you or any of the Task Force members have questions, please give me a call.

Sincerely,

Benjamin D. Kor
Executive Officer

MGB:lmf/trinity6

cc: All task force members

Enclosure

CLEANUP AND ABATEMENT ORDER NO. 93-105

FOR

UNITED STATES TRINITY RIVER RESTORATION PROGRAM
AS IMPLEMENTED BY
TRINITY RIVER TASK FORCE
AS CHAIRED BY
U.S. BUREAU OF RECLAMATION

Trinity County

The California Regional Water Water Quality Control Board, North Coast Region, finds that:

1. In 1984, implementation of Public Law 98-541 established the Trinity River Restoration Program under the direction of the Trinity River Task Force (a consortium of fourteen federal, tribal, state and local agencies). The U.S. Bureau of Reclamation is the designated chair of the Task Force. The Program, through its Trinity River Field Office and other offices of its member agencies, has conducted a variety of investigations and pilot-scale construction projects related to efforts to restore fisheries of the Trinity River. The Trinity River Task Force is hereinafter referenced as "the discharger".

2. In a letter report dated June 16, 1993, the U.S. Bureau of Reclamation's Trinity River Basin Field Office described proposals to construct and/or or contract to construct up to twenty-one side-channel and feather-edge projects during the summer of 1993. The projects are located between River Miles 76.9 and 109.0 and are generally described in the letter report and in environmental documents circulated by County of Trinity and Bureau of Reclamation. These projects were to be constructed in conformance with the provisions of the water quality objectives adopted by the Regional Board in its Basin Plan.

3. On September 16, 1993, the Regional Board began receiving a series of complaints and reports regarding the discharge of sediments and turbidity-producing wastes from side-channel and feather-edge projects being constructed within and beside the Trinity River. The complaints and reports alleged and documented the violation of water quality objectives and prohibitions against discharge as adopted by the Regional Board.

3. On September 21 and 22, 1993 the Regional Board inspected side-channel and feather-edge construction sites and observed eroding and erodible earthen materials and other organic materials

which were discharged and probably will be discharged into waters of the Trinity River. Similar discharges of waste have been documented to violate water quality objectives as adopted by the Regional Board. Unless corrective

action is taken, future erosion will result in further discharges of earthen and organic materials to waters of the state. Such waste has been and probably will continue to be discharged into the waters of the State, where it has created or threatens to create a condition of pollution and nuisance.

4. The Board adopted the Water Quality Control Plans for the Klamath River Basin (1A) and the North Basin 1(B) on March 20, 1975. The Klamath River Basin Plan (1A) was combined with the North Coastal Basin Plan (1B) to form the Water Quality Control Plan for the North Coast Region. The Plan for the North Coast Region was adopted by the Board on April 28, 1988. The Plan includes water quality objectives and receiving water limitations.

5. The existing and potential beneficial uses of Trinity River and its tributaries include:

   a. municipal and domestic supply
   b. agricultural supply
   c. groundwater recharge
   d. fresh water replenishment
   e. water contact recreation
   f. non-contact water recreation
   g. cold fresh water habitat
   h. wildlife habitat
   i. fish migration
   j. fish spawning

6. Discharge prohibitions 1 and 2 of the Action Plan for Logging, Construction, and Associated Activities of the Water Quality Control Plan for the North Coast Region state:

   "1. The discharge of soil, silt, bark, slash, sawdust, or other organic and earthen material from logging, construction, or associated activity of whatever nature into any watercourse in the basin in quantities deleterious to fish, wildlife, or other beneficial uses is prohibited.

   2. The placing or disposal of soil, silt, bark, slash, sawdust, or other organic and earthen material from any logging, construction, or associated activity of whatever nature at locations where such material could pass into any stream or watercourse in the basin in quantities which could be deleterious to fish, wildlife, or other beneficial uses is prohibited."

7. Section 13304(a) of the Porter-Cologne Water Quality Control Act states:

   "Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a Regional Board or the State Board, or who has caused or permitted, causes or permits, or threatens to cause or permit

any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the Regional Board clean up such waste or abate the effects thereof or, in the case of threatened pollution or nuisance, take other necessary remedial action. Upon failure of any person to comply with such cleanup or abatement order, the Attorney General, at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring such person to comply therewith. In any such suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant."

8. Pursuant to Section 15321, Title 14, California Administrative Code, this action is exempt from the California Environmental Quality Act.

THEREFORE, IT IS HEREBY ORDERED that pursuant to California Water Code Section 13304, the discharger shall:

1. Cleanup and abate the effects of waste earthen materials and other organic materials discharged to Trinity River.

2. Cleanup and abate the effects of waste earthen materials and other organic materials deposited where they probably will be discharged to Trinity River.

3. On or before October 28, 1993, submit to the Regional Board a post-construction review report describing:

   a. The extent of turbidity and other water quality effects from the projects;

   b. Assessment of the management practices and controls which were and/or should have been followed to minimize adverse effects from the projects; and

   c. A plan, prepared by a professional experienced in erosion control, for cleanup and abatement as specified in 1 and 2 (above). Said plan shall delineate all intended compliance measures to control erosion and discharge from disturbed earth areas, excess-material embankments, access roads and temporary equipment tracks.

4. The cleanup and abatement activities specified in 1 and 2 above shall be completed on or before November 11, 1993.

5. On or before December 1, 1993, submit a final compliance report which clearly delineates measures taken to comply with 1 and 2 above.

Ordered by _____
Benjamin D. Kor
Executive Officer

October 4, 1993

(trinity6)

Technical Work Group Report
October 6, 1993
by
Bob Rohde
Technical Work Chair

In response to the following Task Force direction:

"The Technical Work Group will investigate the impacts of hatchery yearling releases on wild populations" (July 16, 1993)

The Technical Work Group spent an entire day discussing this issue on September 22, 1993. Representatives from Pacific Power and Light, California Department of Fish and Game, U.S. Fish and Wildlife Service and Klamath Management Zone Fishery Coalition were invited to provide information for discussion. A list of people present during the discussion is provided as an attachment. The Klamath Management Zone Fishery Coalition representative was unable to attend.

The Technical Work Group decided that all Iron Gate Hatchery releases were more appropriate for Technical Work Group evaluation, rather than merely the impacts of hatchery yearling releases. I posed the following question for Technical Work Group response.

Do Iron Gate Hatchery releases have an impact on wild anadromous fish populations?

The answer from the Technical Work Group was:

We don't know - but the following actions are needed to find out.

Migration patterns and life histories of all anadromous fisheries and hatchery released fish throughout the Klamath River mainstem and estuary need to be evaluated.

To accomplish this goal adequate funds are needed to accomplish the following tasks:

1. A complete literature review needs to conducted and presented to the Technical Work Group for review;

2. A synopsis of all outmigrant trapping in the mainstem, tributaries and estuary needs to be assembled and presented to the Technical Work Group for review;

3. Coordinated outmigrant trapping efforts for natural and hatchery fish need to be conducted simultaneously for several years and expanded to provide a statistically valid sample size for analysis;

    A. This information is especially needed on the

Trinity River to test the effectiveness of an existing model. Model testing results on the Trinity could better determine the potential utility of developing a similar model on the Klamath River;

B. The topic of hatchery fish marking needs to be thoroughly evaluated before outmigrant sampling on the Klamath or Trinity River is expanded.

The following are additional topics that need to be thoroughly evaluated:

- Genetic mixing;
- Productivity throughout the system;
- Carrying capacity;
- High pre-hatch mortality at Iron Gate Dam;
- Mitigation for Spring Chinook and Sockeye fish populations lost as a result of dam construction.

TECHNICAL WORK GROUP ATTENDANCE SHEET
September 22, 1993

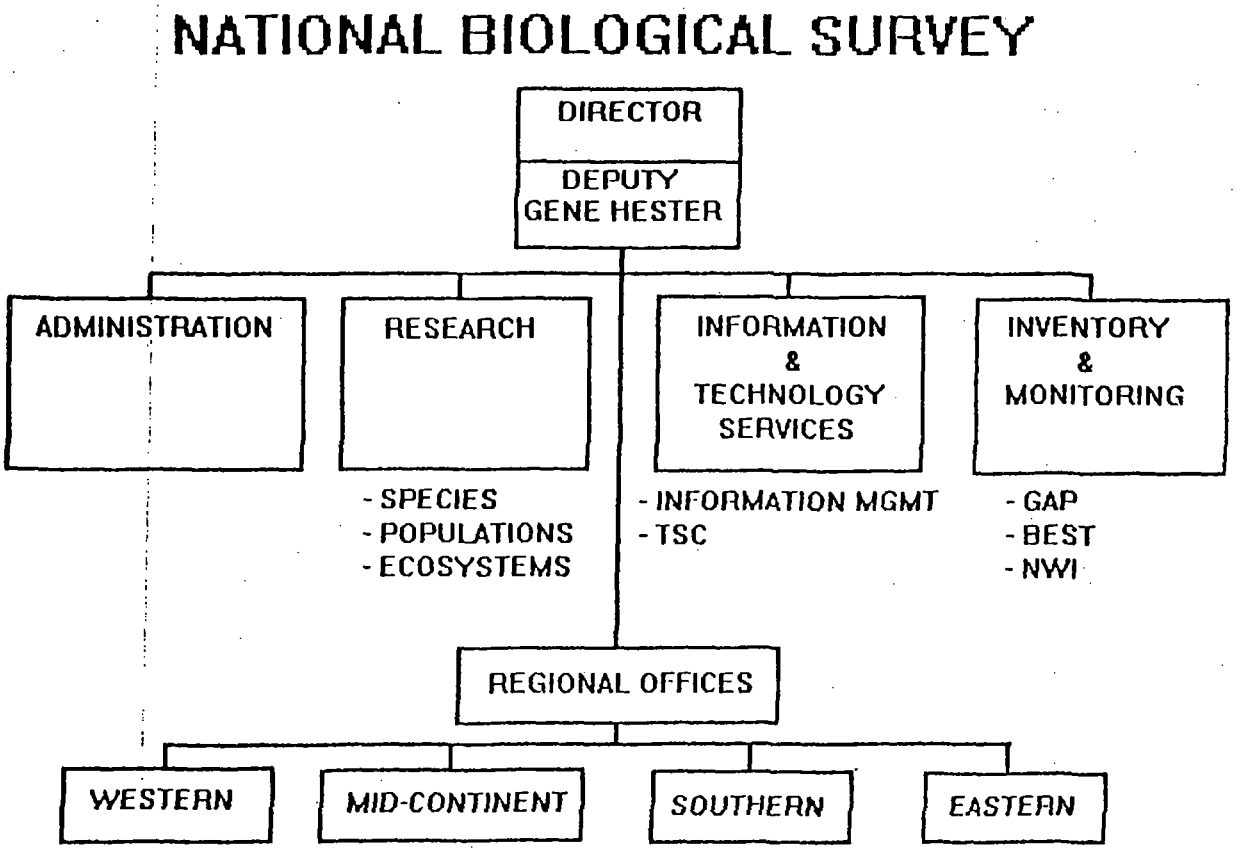
Name	Address	Phone
Jud Ellinwood	P. O. Box 4450, Arcata, CA 95521	(707) 444 - 8903
Carl Harral	California Dept. of Fish and Game 601 Locust Street *Redding, CA 96001*	(916) 225 - 2309
Tricia Parker	USFWS P. O. Box 1006, Yreka, CA 96097	(916) 842 - 5763
Duane A. Asherin	USFWS Ft. Collins, CO	(303) 226 - 9402
Julie Perrochet	US Forest Service Klamath National Forest, Yreka	(916) 842 - 6131
Linda Radford	P. O. Box 595 Cloverdale, CA 95425	(707) 894 - 2606
Robert Franklin	P. O. Box 417 Hoopa, CA 95546	(916) 625 -4267
Dave Webb	Scott River CRMP P.O. Box 277, Mt. Shasta ,CA 96067	(916) 926 - 2460
Bonnie Pierce	1111 Forson Road McKinleyville, CA 95521	(707) 894 - 2606
Bruce Halstead	USFWS Arcata, CA 95521	(707) 822 - 7201
Paul Hubbell	California Dept. of Fish and Game 1416 9th Street Sacramento, CA 95814	
Bruce Eddy	Pacific Power and Light 920 SW 6th Portland, OR	(503) 464 - 4671
Bob Rohde	Karuk Tribe, Department of Natural Resources P. O. Box 282, Orleans, CA 95556	(916) 627 - 3446
Curtis Ihle	53 Kingston Road Fieldbrook, CA	(707) 839 - 3064
Curt Waldvogel	981 H Street Crescent City, CA 95531	(707) 464 - 4711
Clair Stalnaker	4512 McMurray Avenue Fort Collins, CO 80525	(303) 226 - 9333
Robert P. Corn	S. H. Super 601 Locust Street Redding, CA 96001	
Ron Garrett	FWS / ERO 6600 Washburn Way Klamath Falls, OR 97603	(503) 883 - 6935

Technical Work Group Report
Basin-wide Planning and "Key Watersheds"

Attached for your review is a list of people present during the Technical Work Group discussions on September 23rd. Specialists in Geographic Information Systems (GIS) were invited to participate from the California Department of Fish and Game, the University of California at Davis, William Kier Associates and National Ecology Research Center. In addition, the CRMP coordinators from the Shasta, Scott and Salmon River's were invited to share with us their perspectives.

Each GIS specialist provided us an update on their work. Paul Veisze, from the California Department of Fish and Game, provided us an update on the 1:100,000 scale EPA reach file system currently under development for California. Tex Lee, from the University of California at Davis, described the work he is engaged in at Tule Lake. Jan Derksen, from William Kier Associates indicated that he is working on the database development for the Shasta River. Duane Asherin, from the National Ecology Research Center, Fort Collins, Colorado provided us an update on the newly established National Biological Survey.

Starting October 1, 1993, the National Ecology Research Center will become part of a new branch of government called the National Biological Survey. The National Biological Survey will have the following structure.



It was recommended by Duane Asherin that a letter be drafted requesting assistance from the National Biological Survey. Asherin further recommended that this letter be followed by a more detailed letter describing specific work later.

After the GIS specialist updates, I provided a slide show presentation of the Klamath River Basin, followed by CRMP coordinator updates.

The consensus of the group was that specific funds should be identified for the development of a Coordinated Resource Information System (CRIS) for the Klamath River Basin. This information system should be readily available to the Technical Work Group for restoration planning.

Specific funds need to be targeted for:

1. Coordinated Resource Information System Development;
2. Technical Work Group Coordination;
3. Project Implementation;
4. Research and Monitoring;
5. Program Adminstration, separate from existing funds.

TECHNICAL WORK GROUP ATTENDANCE SHEET
September 23, 1993

Name	Address	Phone
Jud Ellinwood	P. O. Box 4450, Arcata, CA 95521	(707) 444 - 8903
Tex Lee	Agronomy and Range Science University of California Davis, CA 95616	(916) 752 - 5642 work (916) 758 - 1095 office
Carl Harral	CDFG 601 Locust Street Redding, CA 96001	(916) 225 - 2309
Julie Perrochet	US Forest Service Klamath National Forest, Yreka	(916) 842 - 6131
Jan Derksen	Bill Kier Associates Redway, CA	(707) 923 - 2707
Jim Welter	KMZE Coalition 404 Pacific Avenue Brookings, OR 97415	(503) 469 - 7044
Dave Webb	Scott River CRMP P.O. Box 277 Mt. Shasta ,CA 96067	(916) 926 - 2460
Ron Iverson	USFWS P. O. Box 1006 Yreka, CA 96097	(916) 842 - 5763
Linda Radford	P. O. Box 595 Cloverdale, CA 95425	(707) 894 - 2606
Robert Franklin	P. O. Box 417 Hoopa, CA 95546	(916) 625 -4267
Ronnie Pierce	1111 Forson Road McKinleyville, CA 95521	(707) 894 - 2606
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Duane A. Asherin	USFWS Ft. Collins, CO	(303) 226 - 9402
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