QUESTIONS AND ANSWERS

Trinity River EIS/EIR

October 20, 1999

1. **What's the purpose of the project?**

The purpose of the proposed action is to restore and maintain the natural production of anadromous fish on the Trinity River mainstem downstream of Lewiston Dam.

2. **Why is the project needed?**

The need for the action results from Congress': (1) mandate that diversions of water from the Trinity River to the Central Valley Project not be detrimental to Trinity River fish and wildlife resources; (2) finding that construction and operation of the TRD, as well as other factors, have contributed to detrimental effects to habitat and have resulted in drastic reductions in naturally producing anadromous fish populations; (3) finding that restoration of depleted stocks of- anadromous fish is critical to the dependent tribal, commercial, and sport fisheries; and (4) confirmation of the federal trust responsibility to protect tribal fishery resources affected by the Trinity River Division.

3. **Who are the action agencies?**

The co-lead agencies are the U.S. Fish and Wildlife Service, U.S. Bureau of Reclamation, Hoopa Valley Tribe, and Trinity County. Numerous other federal, state, county, and tribal agencies have also participated in the development of the alternatives and assessment of impacts.

4. **What is the proposed action (i.e., preferred alternative)?**

The proposed action is to increase annual Trinity River flows from 340,000 acre-feet (af) of water to a long-term annual average of 595,000 af (range of 369,000-815,000 af depending on water year). The proposed action would increase the maximum fishery release from Lewiston Dam from the current 2,000 cubic-feet-per-second (cfs) to 11,000 cfs (the latter will be achieved in about 12 percent of the years). The proposed action would use mechanical means (e.g., bulldozers) to initially restore some habitat in the river; thereafter, the sites would be maintained by the increased flows. An adaptive management program would test scientific understandings that are built upon existing data, and then use these results to evaluate progress towards desired outcomes and guide future management actions. The proposed action also includes a watershed protection program to reduce sediment input into the Trinity River.

5. **What would the proposed action do to the Trinity River ecosystem?**

Prior to construction of the Trinity and Lewiston Dams, the Trinity River had extensive, gently sloping gravel bars, which created gravelly riffles alternating with deep pools along the length of the river. These broad gravel bars were the basis of a wide variety of salmonid habitats. Little vegetation existed in the river's active flood plain because annual floods scoured and maintained the gravel bars by removing recently established plants. The reduced post-dam flows allowed these plants to remain and mature on the gravel bars. The mature riparian forests that established along the river margin prevented the river from maintaining and reshaping its gravel bars as it historically did. This change resulted in the confinement of the river channel: the alternating riffles and deep pools were replaced by a relatively simplistic channel with steeper banks and uniform depth. The proposed action would recreate and maintain the gently sloping gravel bars, returning the river to conditions similar to the dynamic pre-dam conditions and providing a wide variety of habitats for all life stages of salmonids, as well as other native plants and animals.

6. **How does the proposed action compare to pre-dam flows?**

Prior to the dam annual Trinity River flows at Lewiston averaged about 1,250,000 af, although there was great inter-year variability. The proposed action would keep slightly less than half the Trinity's water in the Trinity River. Prior to the dam the highest recorded peak flows at Lewiston exceeded 100,000 cfs. Under the proposed action the highest fishery flows at Lewiston would be 11,000 cfs. Summer/fall flows would be maintained at higher levels than pre-dam conditions to provide cooler temperatures because fish such as spring chinook salmon which summered in the cooler waters upstream of Lewiston Dam are no longer able to do so.

7. **How much have Trinity River fish stocks declined?**

Estimates of fish abundance prior to the construction TRD dams are sporadic and highly variable. The best available annual estimates for fall chinook range from 19,000 to 75,600 fish. The Trinity River Restoration Program has adopted an inriver spawner goal of 62,000 returning fall chinook salmon (excluding returns to the hatchery). Recent returns of naturally produced fish have only been 20 percent of this goal. Populations of spring run chinook salmon, coho salmon, and steelhead have shown similar declines. Coho have declined so much that they are now listed as a threatened species pursuant to the federal Endangered Species Act.

8. **How can you be sure that the dams have caused the decline?**

Numerous factors have contributed to the decline of the Trinity River fishery; however, the altered river flows associated with the dams and subsequent changes in river habitats (loss of diverse and high-quality habitats) are the primary factor for the decline of

naturally produced salmonid populations. As evidence of that, the Trinity River has changed from a broad alluvial river to a channelized system that provides little habitat for the various life stages of salmon.

9. Why not just produce more fish from the hatchery?

The various legal authorities supporting the proposed action make it clear that the goal is to increase naturally produced fish, which is restated in the purpose and need statement of the DEIS/EIR. The role of the hatchery is to mitigate for the reduced salmon and steelhead production resulting from the loss of habitat upstream of Lewiston Dam.

10. Why not just use mechanical means to restore the river?

Mechanical means, e.g., bulldozers, can assist in restoring the river to pre-dam conditions. Indeed, the proposed action would use mechanical means to initiate the restoration of the river. However, the benefits of mechanical means alone are very largely limited to the restoration sites and cannot restore the length of the river. Mechanical means cannot restore all the ecological processes (such as gravel flushing and sorting) necessary to restore the river , nor can mechanical means provide the diversity of habitats and conditions needed by all life stages of salmon.

11. Why not just remove the dams?

In spite of their harmful effects, the dams do provide enormous economic benefits. Furthermore, removal of the dams, and the subsequent restoration of the river, could take decades. Restoration of the Trinity River fishery is needed immediately.

12. What are the alternatives to the proposed action?

The status quo would maintain releases from Lewiston Dam at 340,000 af annually. Another alternative would be to release all the inflow into Trinity Reservoir down the river (i.e., do not export any water) using established release schedules. Another alternative would be to release down the river 40 percent of the previous week's inflow into Trinity Reservoir. Maintaining current flows and increasing the level of mechanical work was also assessed as an alternative. All of these alternatives had varying degrees of benefits and negative impacts. Numerous other alternatives were considered, but deemed not to achieve the purpose and need.

13. How much would the proposed action restore salmon populations?

The best available information suggests that implementation of the proposed action would, by the year 2020, restore Trinity River anadromous fish runs to 66 percent of the restoration program goals (compared to the status quo which would result in fish runs that are 8 percent of the goals).

14. How would the proposed action effect Central Valley water supplies?

(Mike Spear is having Arcata staff re-verify these figures)

The proposed action would reduce water exports from the Trinity River to the Central Valley. Long-term average water deliveries to Central Valley Project water users (e.g., irrigation districts, municipalities) in the Central Valley north of the Delta would decrease by 1 percent. Deliveries south of the Delta would decrease by 2 percent. Inflows to the Delta would decrease by 1 percent due to the reduction in Sacramento River flows. During dry periods deliveries north of the Delta would decrease by 4 percent and those south of the Delta would decrease by 3 percent. Delta inflow during dry periods would decrease 1 percent compared to no-action levels.

15. Who would be negatively impacted the most by the project?

Central Valley water users who receive water under water service contracts with the federal government would be negatively impacted. Purchasers of Central Valley Project hydro-electric power would also be impacted. In the Trinity River flood plain one developed property and 4 bridges could be affected by the proposed action.

16. Who would benefit the most from the project?

Communities and fishing-related industries in Trinity and Humboldt Counties would benefit from the project. The Hoopa Valley and other Indian tribes in the region would benefit from the restoration of the fishery. Communities and industries along the California and Oregon Coast that depend on abundant ocean fish stocks would also benefit from the proposed action.

17. What would be the impacts to Trinity and Shasta Reservoirs?

Trinity Reservoir water surface elevation would increase an average of about 2 feet during the long-term, and 18 feet during dry periods (as measured on September 30). Shasta Reservoir water surface elevation would decrease an average of 3 feet during the long-term, and 11 feet during dry periods.

18. How much would it cost to implement the proposed action?

The proposed action would have an up-front cost of $5 million to mitigate impacts to properties and bridges in the Trinity River floodplain. Annual costs over the next couple decades could range from ***$8-$12 million.*** *Significant annual costs include watershed rehabilitation work, implementation of an adaptive management program, and placement of spawning gravel.*

19. What is the process from here on?

Starting October 22, 1999, the co-leads will accept comments from all interested parties

until December 8. During the public comment period public hearings will also be conducted. Once the comment period closes the co-leads will consider the comments received and will produce a Final EIS/EIR. Following the Final EIS/EIR, a Record of Decision and a Notice of Determination would be signed, identifying a final course of action. The final decision is expected in Spring 2000. After that, the project would be implemented accordingly.