CLARIFYING QUESTIONS TO THE DEPARTMENT OF THE INTERIOR, USFWS AND DEPARTMENT OF FISH & GAME's ANADROMOUS FISHERY WITNESSES

Flow Criteria for the Delta Ecosystem
State Water Resources Control Board

Submitted by the San Joaquin River Exchange Contractors Water Authority
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There has been a common demand made by the USFWS, NMFS and DFG to the SWRCB in regard to Anadromous Fisheries for the last 25 years. That demand is for more flows and colder water flows during the egg incubation, rearing and juvenile outmigration periods, and use of low-elevation natural river channels as "natural hatcheries". The SWRCB has in both the cases of the Yuba River and Sacramento River below Shasta Dam accomplished by orders exactly what the Fishery agencies recommended . . . increased flows and measures ensuring that colder water conditions would exist during the incubation and rearing periods, despite the fact that it was well-known that these flows would retard juvenile growth rates, retard natural food production which improve juvenile growth before outmigration commences, and delay outmigration timing artificially or through inflexible high flow regimes push smaller juveniles to outmigrate. The returning adult salmon average on the Yuba River before the fishery agency flows and DFG management plan were adopted, with operation of the dams, was approximately 15,000 adults from 1972 to 2000, despite increased ocean harvest rates. The numbers were much more dependable than other rivers. With the flow and temperature conditions advocated by the Fishery agencies, it is now down to a range of 2,500 adults. Similar results have occurred on the Sacramento River. The returning adult populations of salmon have declined precipitously on the Yuba and Sacramento Rivers from the levels before the SWRCB ordered the flows and temperatures the fishery agencies requested using those agencies' favored tools . . . more water and colder water.

1.0 Isn't it true that focusing upon cold water releases and large flows does not seem to have provided resilience to decline in numbers or an improved adult return rate on these rivers compared to other rivers where those conditions have not been required? Why isn't the "tool" of

high flows and cold temperatures showing these rivers to be more resistant to reductions?

2.0 Would the witnesses agree that more focus should have been paid on the Yuba and Sacramento Rivers by their agencies on limitation of food and growth retardation of juveniles caused by colder water and higher flow conditions than to the greater probability of disease in warmer water and low flow conditions?

3.0 The declines in anadromous fish populations in coastal streams where there are no dams or irrigation diversions appear to parallel the decline in returning adult anadromous fish population conditions observed in the Sacramento River and San Joaquin River. These peak flows and temperature conditions in coastal streams occur without water storage or diversions. The witnesses do not discuss or explain this parallel decline, but insist more Spring flows would substantially aid the situation in the Delta. Does not the parallel declines indicate ocean food supply available for anadromous populations and predation conditions appear to be bigger factors or conditions affecting population numbers than the absence of large flows to transport juveniles through the Delta? If so, why focus in your testimony to this Board on increased flows to transport juveniles in and through the Delta, when we may be sending juvenile salmon to their death at exactly the times that predation is the greatest in those areas of the ocean and at the exact time that ocean food supplies are unavailable?

4.0 Why does your testimony not address and include adaptive management techniques to monitor ocean food production and availability, and predator conditions in both the juvenile outmigration routes and ocean? Before using large quantities of water to flush juveniles to their death because of bad timing of those flows, would it not be wise to ascertain that the timing of the flows and their volume is suited to survivability?

5.0 Regarding anadromous fish, for 35 years the phrase “adaptive management” has been used but only one “wrench” seems to be available as a tool . . . more water. When are your agencies going to report the availability of other “tools” such as those for the elimination of predators, the protection of anadromous fish food supplies from invasive species, and periods of ocean food conditions to determine if and when releases of stored water, if natural flows are not available, to transport juveniles through the Delta to the ocean are best made?