Jan. 22, 1998

Pete:

You asked us to provide you an opinion about whether there is agreement on the statement:

"... upstream habitat restoration benefits for chinook salmon in the Sacramento system and for steelhead will likely exceed benefits for the species realized by actions taken in the estuary."

I, for one, do not agree with that statement and, more importantly, am concerned about the misleading message that it may send.

My reasons are two fold:

First, there is little evidence that could be used to calculate or accurately estimate what we can expect to achieve upstream in terms of improved juvenile salmon survival. While we can expect significant improvements and must tackle upstream issues in order to be successful, I don't believe we can say which will provide the greater benefit.

I have provided you with an alternative Delta analysis attached to this e-mail for your consideration. Using my calculations for the Delta and assuming we could improve salmon production by 25 % and survival upstream by 10 % we can evaluate the outcome of both upstream and in-Delta actions and compare them individually and in combination. I used a baseline number of 100 fish to begin this comparison.

	Baseline production	Improved production	Baseline survival Upstream	Improved Survival Upstream	Baseline Survival Delta	Improved Survival Delta (Total Fish)
No project	100	100	80	NA	31	31
Upstream Actions Only	100	125	120	110	42	42
Delta Actions Only	100	NA	80	NA	NA	54
Combined Actions	100	125	120	110	NA	75

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This comparison suggests the in-Delta actions alone will result in more fish remaining at Chipps than the upstream actions only would. In combination, survival is improved nearly two and half times the base or existing condition.

Second, I believe that the comparison made in the subject statement conflicts with the overall strategy of the ERPP. The ERPP needs to work as a package so that the actions taken work synergistically to restore the system's anadromous fisheries resources.

Thanks for the chance to comment.

Frank Wernette

calfedpe