

Conservation Corner

Saving the Salmon

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by Mel Odemar, VP Conservation

Spring-run Chinook salmon, once the most abundant run of Chinook salmon in California, is threatened with extinction. The primary reason for their demise is the dams that block access to historic spawning and rearing habitats. As a result Central Valley salmon are now estimated to be confined to 5-10% of their historic habitat. Additional stresses brought about by reduced river flows and global warming is hastening the demise.

It is time to do something bold. Returning salmon to their historic upstream habitats rather than increased hatchery production is the obvious best solution but how to do that is not obvious and the subject of much heated debate. There are two approaches to this: dam removal; and transporting salmon above and below the blocking dams. Both approaches are appropriate in the right set of circumstances, but not so in all circumstances. Because of dam heights and water fluctuations, fish ladders are not feasible for California rim dams.

The [Yuba Salmon Partnership Initiative](#) announced a plan in May 2015 that would initiate a "trap- and-transport" program to transport spring-run Chinook salmon around Englebright and New Bullards Bar dams into the north fork of the Yuba River. This plan was opposed in a July 22, 2015 editorial in the *Sacramento Bee* as being the wrong way to save salmon on the Yuba and can be found [here](#). The editorial advocated the removal of Englebright Dam. The arguments were basically that "trap-and-transport" is too expensive and that it would set a bad precedent. This was answered in an August 4, 2015 editorial in the *Bee* by Charlton Bohnham, director of the California Department of Fish and Wildlife, and Steve Rothert, California director of American Rivers, advocating that dam removal won't save Yuba salmon and the "trap-and-transport" is the best approach. That editorial can be found [here](#). At the same time a framework agreement was announced by the California Department of Fish and Wildlife, National Marine Fisheries Service, Yuba County Water Agency, American Rivers, Trout Unlimited and the California Sportfishing Protection Alliance to create the first "trap-and-transport" program for salmon in California on the Yuba River. Such programs have proven to be effective in Washington and Oregon.

A thorough discussion of the pros and cons of Englebright dam removal versus "trap and transport" is given in an August 19, 2015 posting by Chris Shutes of California Sportfishing Protection Alliance and can be found [here](#). Among his many arguments are that Englebright dam was built to contain mercury laden mining sediments which if disturbed would be very toxic and that the dam regulates the pulse flows from the New Colgate Powerhouse. If the dam was removed a replacement flow regulation dam would have to be constructed.

Gary Sprague of the National Oceanic and Atmospheric Administration (NOAA) is the project leader for the Yuba river salmon restoration program. Gary was the guest speaker at the September 2 conservation meeting. He presented an informative Power Point presentation describing similar successful "trap-and-transport" projects in Washington and Oregon and described how projects such as these are applicable to the Yuba. The upstream transportation is relatively straight forward. The challenge is safely collecting and transporting downstream migrating fish.

Up until now I have been skeptical regarding the applicability of "trap-and-transport" to California's rim dams. Gary's presentation has changed my views on this and I now support

the approach. The process is challenging and very expensive. In the northwest the dams involved are owned by utilities that had to renew their 50-year operating license issued by the Federal Energy Regulatory Commission. The reestablishment of salmon and steelhead populations above the dams was made a requirement for re-licensing. That is what drove the utilities to spend the necessary money. These costs are passed on to the rate payers. It is not clear where the funds will come from to do the same in California.

The ecological, economic, and social values of salmon and steelhead populations are immense. The conclusion reached in the northwest is that restoration costs are justified considering that society has benefitted immensely from the construction of dams for consumptive water use, power generation and flood control. The conclusion was that now is time to pay the past due bills for taking the water.

Whether or not we will eventually have control over global warming is an open question, but it is in our power to return spring run Chinook salmon to at least some of their historic upstream habitats. Results will not be evident for many years, probably not in the lifetime of many of us, but we owe it to future generations to do what we can.

I was given three copies of an excellent DVD produced by NOAA Fisheries titled *RIGHTS OF PASSAGE*. They are available in the library for your viewing.