

Salmon Emergency

Sacramento River fall Chinook (SRFC) is considered the primary salmon stock supporting California ocean fisheries, historically comprising 80-95 percent of the salmon catch. As with other wildlife species, conservation goals are set for this species and fisheries management is guided by the number of returning salmon. In 2007, SRFC returns did not meet the conservation goal of 122,000 spawners returning to the Central Valley river system. When Department of Fish and Game (DFG) fishery scientists predicted less than 60,000 SRFC would return the following year, both the Pacific Fishery Management Council (PFMC) and the California Fish and Game Commission took emergency action to close all California ocean salmon fisheries for the 2008 fishing season to protect this important stock. Because SRFC returns were predicted to fall short of the conservation goal yet again in 2009 (only approximately 39,500 fish actually returned), fisheries remained closed through the 2009 season and still are severely constrained due to low predicted returns for 2010 as well.

While California's commercial and recreational fishing industries rely heavily upon SRFC catch, this species supports Oregon's fisheries as well, which also were closed by the PFMC's emergency action. The negative impact of the closures for the 2008 and 2009 seasons was so drastic that Congress appropriated \$170 million in disaster relief for West Coast businesses directly affected by the closures. In June 2010, the California governor and anglers requested the declaration of a commercial fishery failure from the U.S. Secretary of Commerce, which would allow for disaster relief for the 2010 season. Because SRFC returns did not meet minimum conservation goals for three consecutive years, an overfishing concern was automatically triggered requiring the PFMC to develop a plan to rebuild the stock, which may include additional fishery constraints. Federal and state regulators have been urged to keep salmon fisheries closed until stock rebounds.

There is a presumption by some that commercial and recreational fisheries are not the cause of the SRFC collapse, and scientists should be looking at other factors. DFG biologists participated on a multi-agency workgroup to determine the primary causes of the SRFC collapse. The workgroup concluded that while unfavorable ocean conditions likely led to poor survival of juvenile salmon, decades of freshwater withdrawal, habitat degradation and changes in hatchery production also contribute. Using this information, DFG took several steps to help address these problems.

DFG is engaged in multiple studies of salmon-spawning inland waters to evaluate water quality and flows. DFG has also initiated a program that marks and inserts coded-wire tags into salmon produced at state hatcheries. The data gathered from the tags allow DFG biologists to ascertain the genetic and ecological effects of the fish themselves as well as the effects of fishing activities. DFG also has reinstated a program that allows hatchery-raised fingerlings to be introduced into the water in pens, protecting them from predators, and giving them the chance to acclimate to their new environment at a time when they are most vulnerable.