

Need for SJR Watershed Water to Reach San Francisco Bay

Submitted to Delta Stewardship Council

by

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May 22, 2011

As part of their studies on the SJR DWSC low-DO situation Lee and Jones-Lee found that during the summer, fall, and early winter, all the SJR water that is present in the DWSC near the Port of Stockton is drawn by the USBR/DWR South Delta export project pumps (Jones and Banks) through Turner Cut. Turner Cut is located downstream about seven miles from the Port of Stockton. Through several cruises conducted in the early 2000s (organized by Lee with support of DeltaKeeper boats and staff), the authors found that during the summer, fall, and early winter the water in the SJR channel downstream of Turner Cut is Sacramento River water. The waters of those two rivers are easily distinguished from each other by their specific conductivities; the SJR water has a much higher salinity than does Sacramento River water. At the suggestion of Dr. Lee, the DWR compliance monitoring of the SJR Deep Water Ship Channel from Prisoner's Point to the Stockton Turning Basin (which consisted of periodic cruises of the length of SJR from its confluence with the Sacramento River to the Port of Stockton) be expanded to include specific conductance. As a result, specific conductance was measured about monthly at 14 stations along the SJR in that reach from summer through the fall. Those data showed that downstream of Turner Cut the water in the SJR channel consistently had conductivities characteristic of Sacramento River water. The data collected on this issue was presented and discussed in the reports on the Lee and Jones-Lee website www.gfredlee.com in the Watershed Studies section, San Joaquin River Delta subsection at <http://www.gfredlee.com/psjriv2.htm>.

As discussed in our papers and reports and summarized in,

Lee, G. F., and Jones-Lee, A, "Review of Impacts of Delta Water Quality and Delta Water Exports on the Decline of Chinook Salmon in the SJR Watershed," Comments submitted to NMFS Southwest Fisheries Science Center, NOAA, Santa Cruz, CA, by G. Fred Lee & Associates, El Macero, CA, August (2008).

<http://www.gfredlee.com/SJR-Delta/Salmon-NOAAcom.pdf>

these finding have important implications for successful spawning of Chinook Salmon in the SJR watershed because no home stream water reaches San Francisco Bay during the summer after VAMP through early winter. This can adversely impact the success of fall run Chinook Salmon spawning in the SJR watershed.