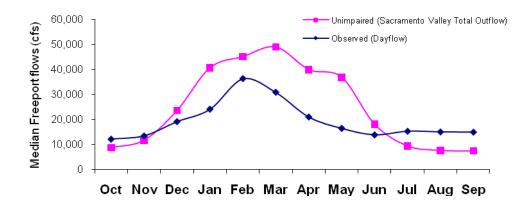
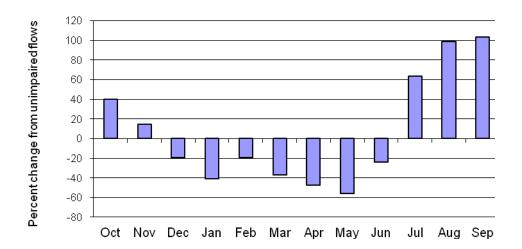
NMFS Exhibit 8

Observed vs. Unimpaired Flows in the Sacramento Basin

NMFS Exhibit 8 Submitted 2.16.2010 for the Delta Flow Criteria Proceeding

Observed median Sacramento River flows deviate from unimpaired flows, 1955-2003. Flow deficits coincide with winter run smolt emigration period.





Sacramento River flow data are from Interagency Ecological Program's Dayflow Sacramento station to represent flows at Freeport in the Sacramento River (http://www.water.ca.gov/dayflow/). We use the "Sacramento Valley unimpaired total outflow" as calculated by California Department of Water Resources (2007 California Central Valley Unimpaired Flow Data, Fourth Edition, Draft; Bay-Delta Office California Department of Water Resources, May 2007, 50 pages) to represent unimpaired Sacramento River flows at Freeport. As the sum of unimpaired flows from 11 sub-basins in the Sacramento basin, the Sacramento Valley unimpaired total outflows effectively estimate Sacramento River inflow into the Delta (i.e., Freeport) if flows were unaltered by influences of reservoirs, imports, exports and diversions (DWR 2007).