Review of the 1995 Delta Water Quality Control Plan

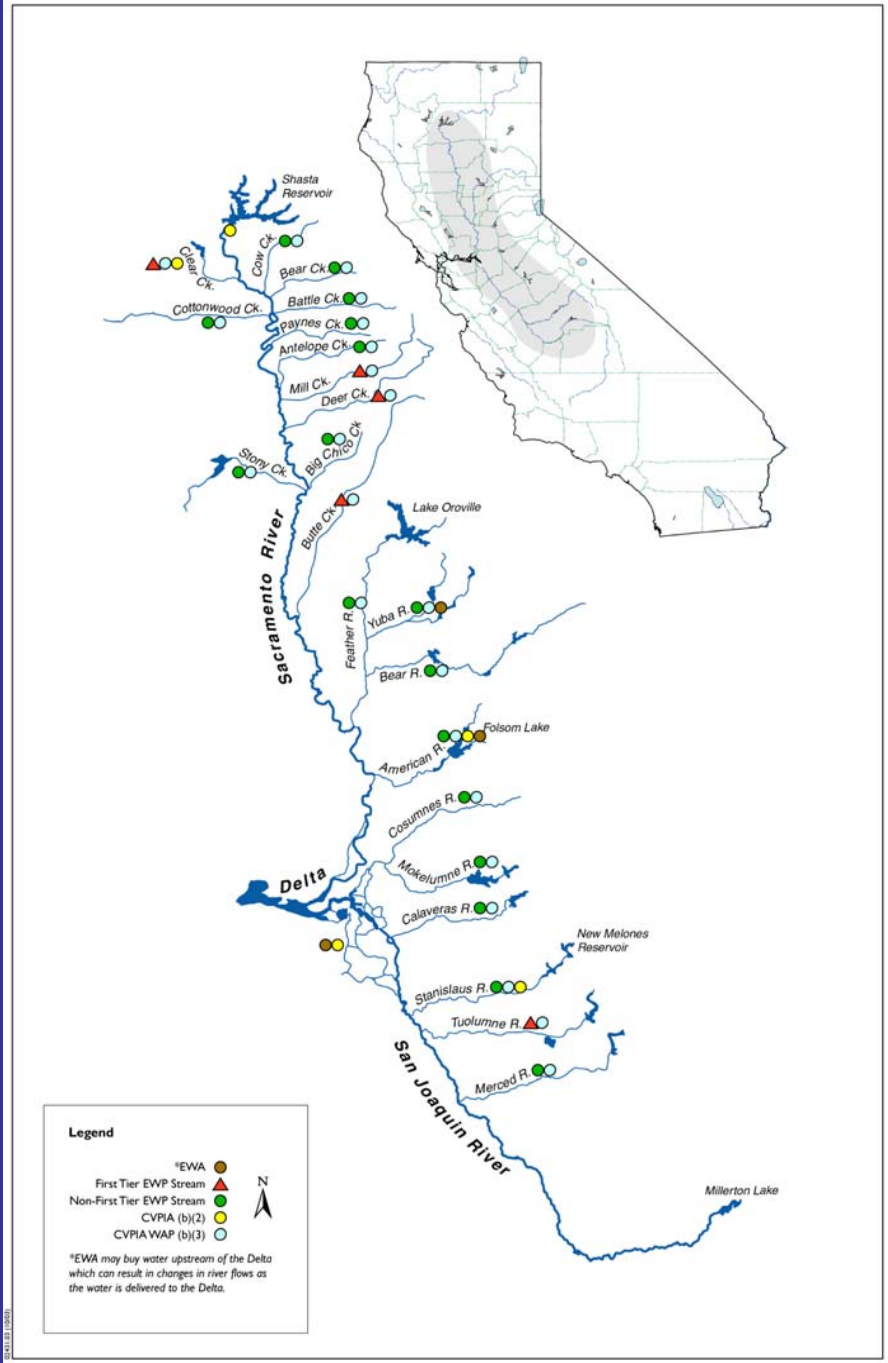
Topic #8: San Joaquin River at Airport Way Bridge, Vernalis Flow Objectives: February – April 14 and May 16- June

Statement to the State Water Resources Control Board
from
U.S. Fish and Wildlife Service

March 21, 2005

Vernalis Flow Standard is important to provide fish protection

- Appropriate habitat must be present to support fish needs
- Based on hydrologic conditions
- Provides important downstream flows and environmental cues for delta smelt and Chinook salmon

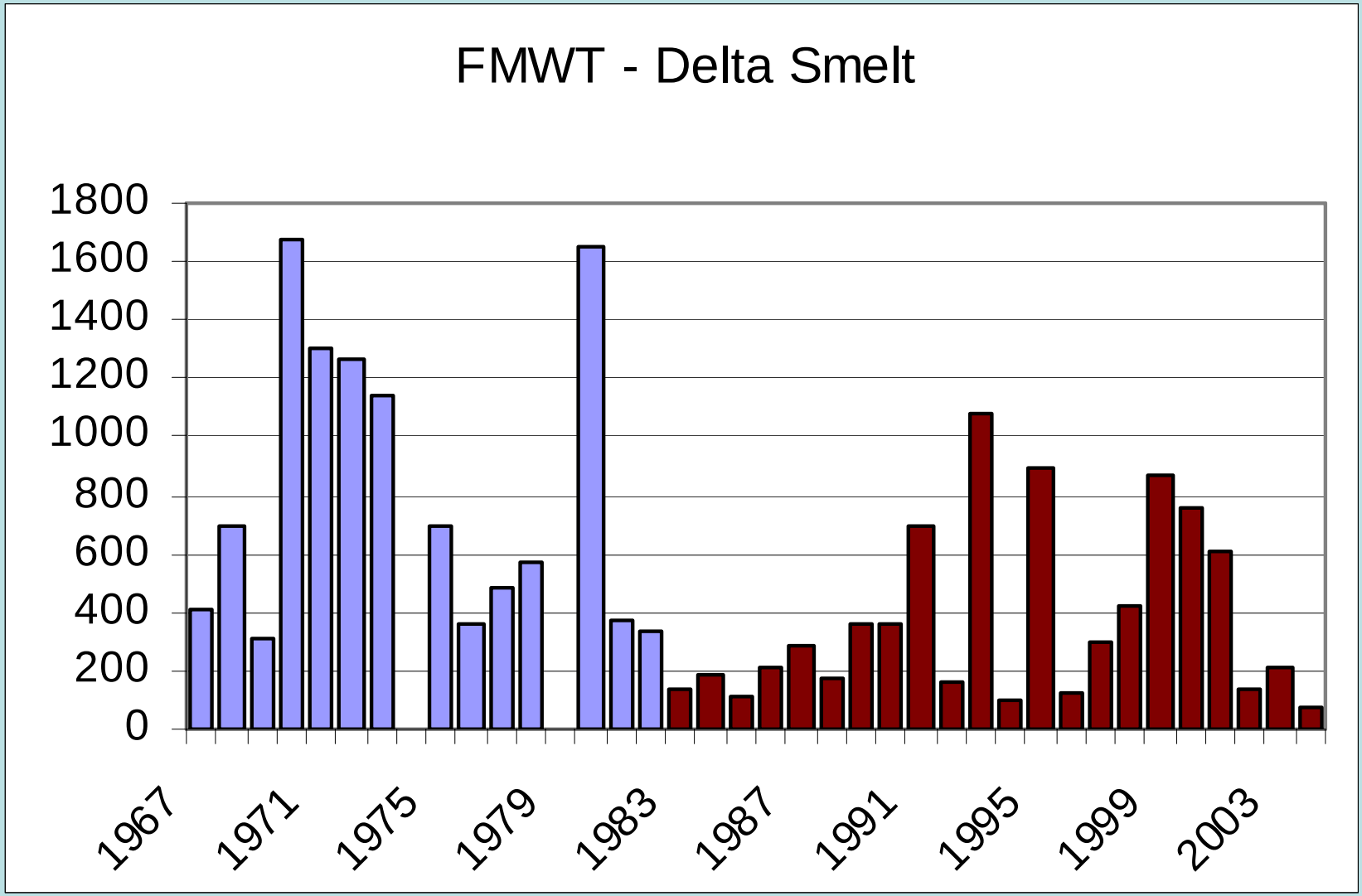


Jones & Stokes

Geographic Comparison of Environmental Water Acquisition Programs

Delta Smelt Population is at Risk

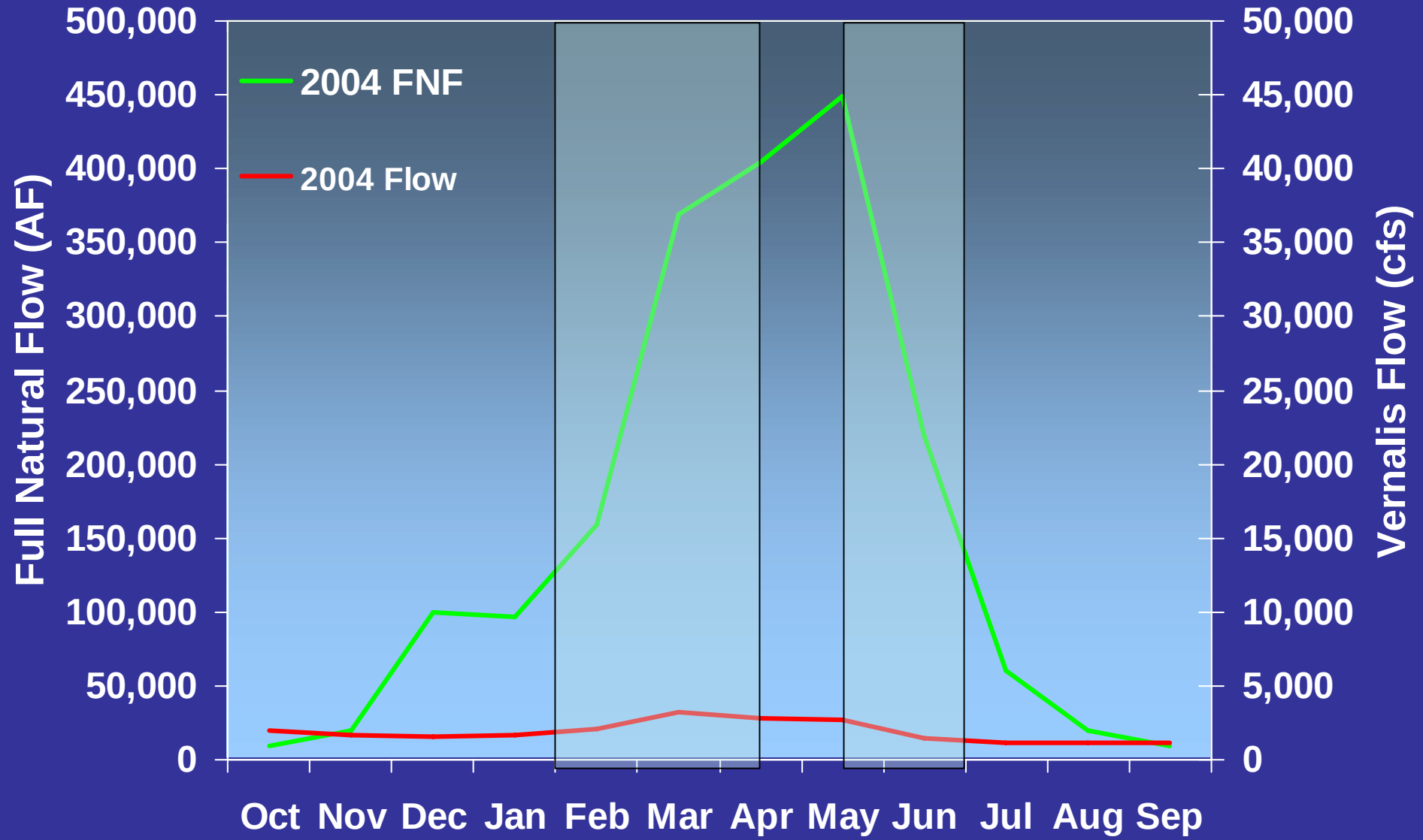
- Delta smelt exhibited the lowest FMWT index of abundance in 2004
- Delta smelt have experienced significant decline since 1982
- Delta smelt have not sustained any significant signs of recovery
- Data indicate a correlation between Vernalis flow (Feb-Mar) and the FMWT for delta smelt


FMWT - Delta Smelt
1800
1600
1400
1200
1000
800
600
400
200
0
1967
1971
1975
1979
1983
1987
1991
1995
1999
2003

San Joaquin Basin Fall-Run Chinook Salmon continue to decline

- Natural production of S.J. Basin salmon is 75% of 1967-1991 baseline average
- Chinook salmon in S.J. tributaries are well below the AFRP doubling goals
- In-river escapement of Chinook salmon in tributaries are correlated with spring flow at Vernalis and in the tributaries
- Reference DOI Exhibit 17

San Joaquin Flow at Vernalis



FN Flow = sum of Stan, Tuol, Mer, and San Joaquin FN flow (CDEC) converted from acre-ft to cfs.
Vernalis Flow = Monthly flow (CDEC, VNS station)

Baker and Morhardt. 2001. Survival of Chinook salmon adults in the Sacramento-San Joaquin Delta and Pacific Ocean.

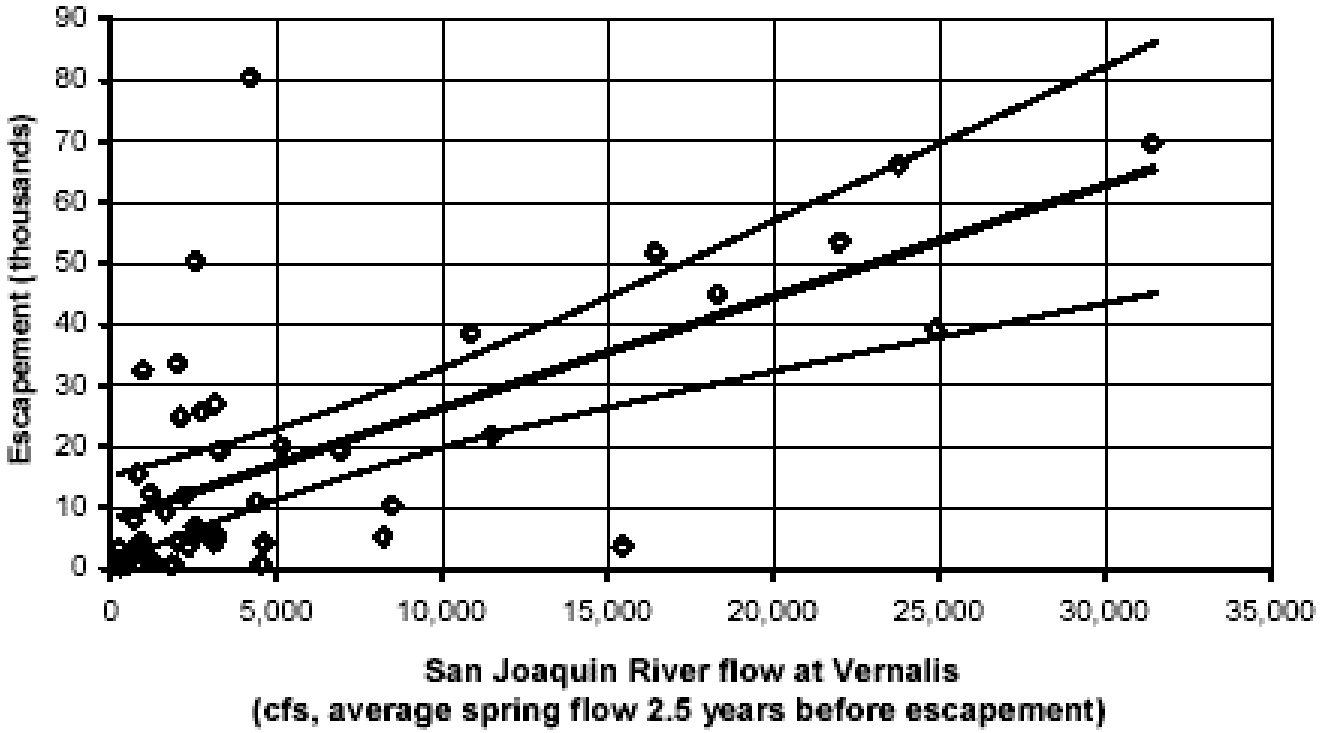


Figure 11 Total escapement to San Joaquin tributaries, 1951 through 1996, and spring flow in the San Joaquin River at Vernalis 2.5 years earlier. Fitted regression line and envelope of 95% confidence region for fitted line are shown.

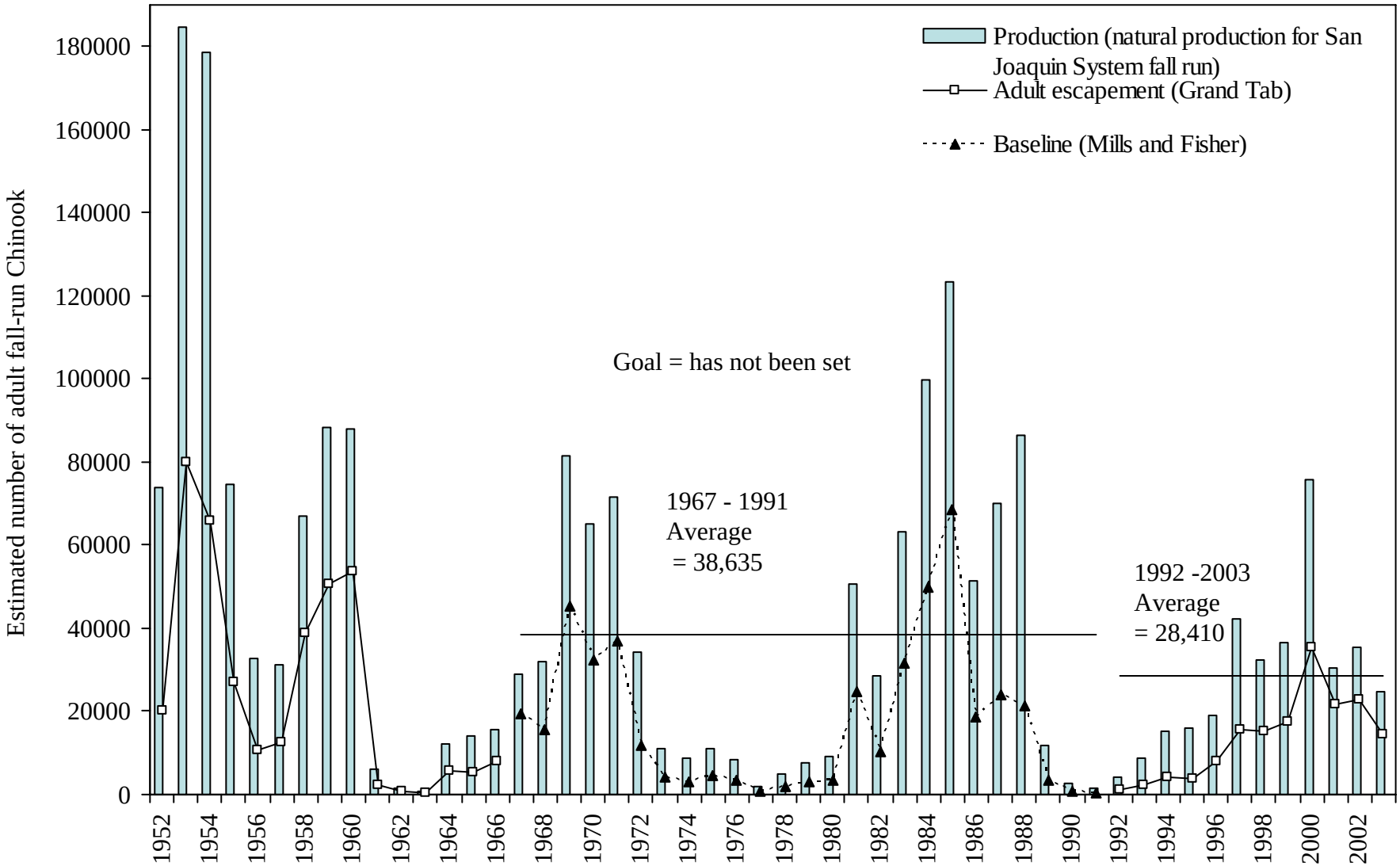


Figure 37. Estimated yearly natural production, and in river escapements of San Joaquin System adult fall-run Chinook salmon. The San Joaquin System is the sum of the Stanislaus, Tuolumne, and Merced Rivers. 1952 - 1966, and 1992 - 2003 numbers are from CDFG Grand Tab (February 5, 2004). Baseline numbers (1967 - 1991) are from Mills and Fisher (CDFG, 1994).

Past years challenges between meeting Vernalis Flow Standard and other operational objectives

- Five agencies in WOMT met to discuss issues and potential alternatives
- Reinitiation of Section 7 consultation with U.S. Fish and Wildlife Service
- Have not yet operated under requirements of new 2004/2005 OCAP BO’s

Recommendation

- Vernalis Flow Standard is important protection for delta smelt and Chinook salmon
- At this time, WQCP's Vernalis Flow Standard should remain in effect
- When potential conflicts arise, five agencies meet to discuss conditions and develop operations to respond to the real-time situation
- Current conditions and fish distributions will be considered

Recommendation

- Project Agencies submit their plan to SWRCB, implement the recommendation, and provide annual report
- Flexibility is included in the 2005 OCAP BO in the adaptive management section
- Evaluate the Vernalis Flow Standard in an open, cooperative process among agencies and other interested parties, including independent scientific peer review