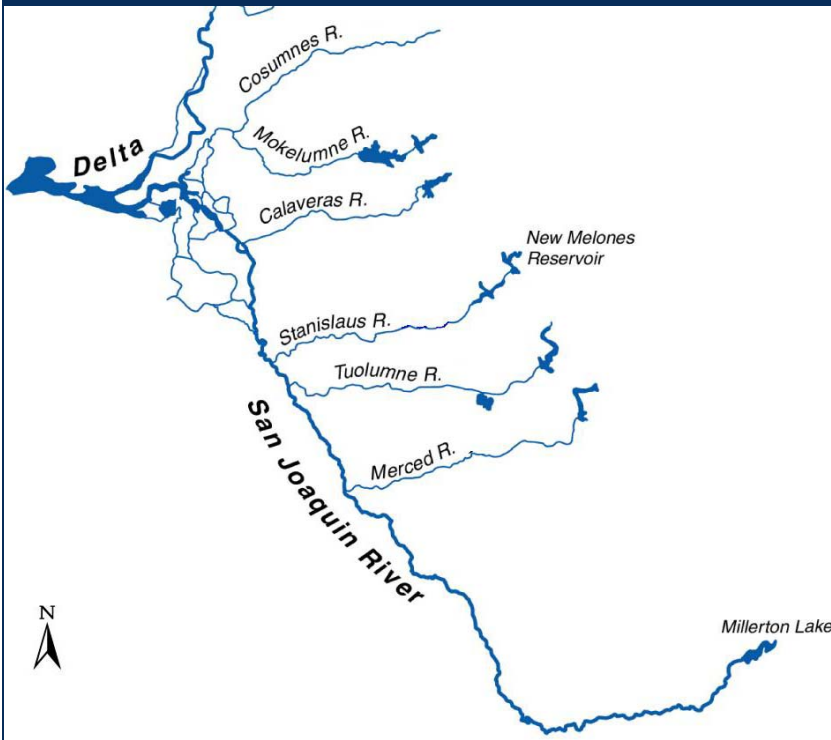




Comments for the SWRCB San Joaquin River Flow objectives for San Joaquin Basin Fall-run Chinook



State Water Resources Control
Board Scoping Meeting

June 6, 2011

Roger Guinee

Pat Brandes

USFWS, Bay-Delta FWO, Sacramento

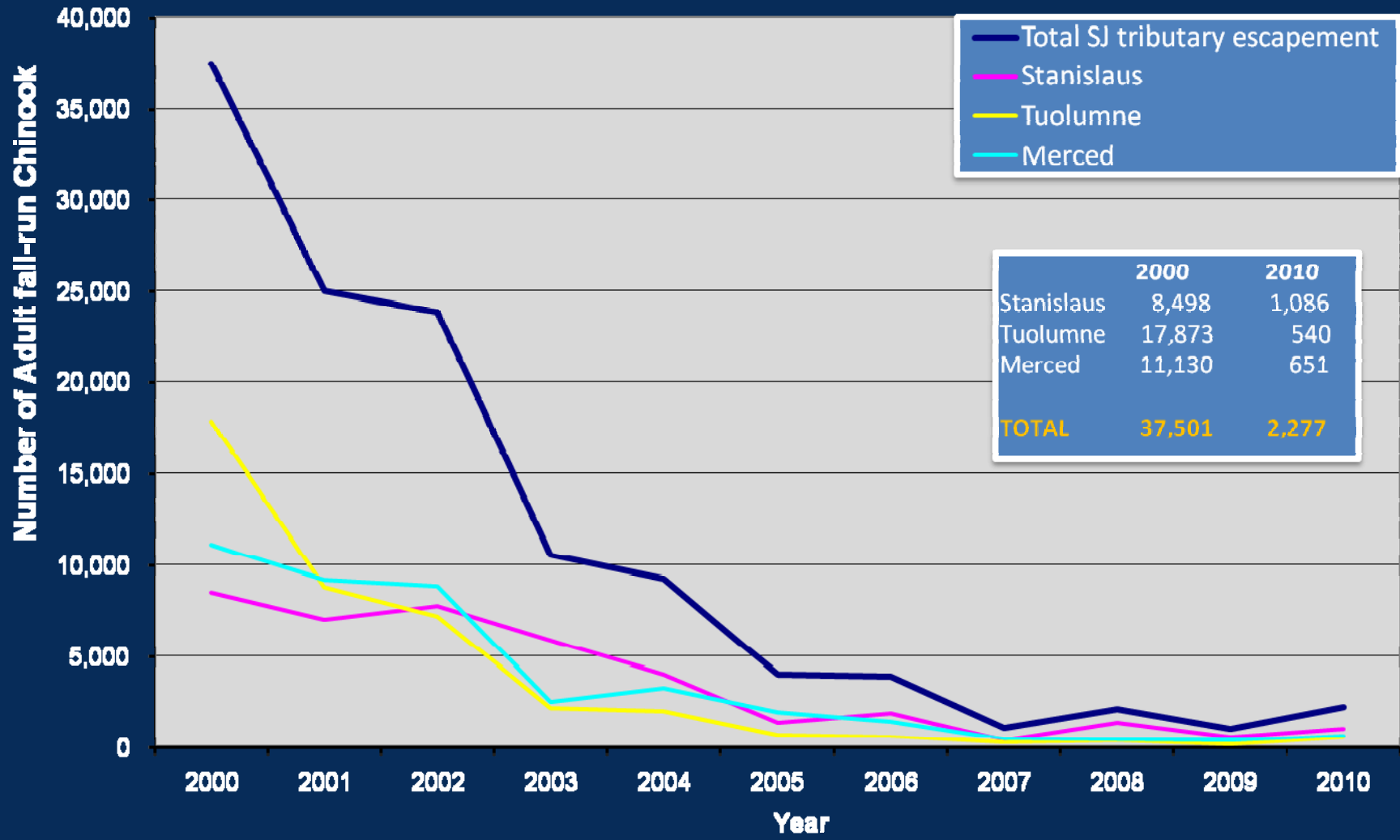
Within the living memories of California's elders are vivid accounts of salmon and steelhead in staggering abundance...



Photo: Charlotte Ambrose

San Joaquin Fall-run Chinook Escapement (in-river)
(data from draft GrandTab 02-01-11)

94% decrease over 10 years





- San Joaquin salmonid populations continue to decline – immediate action is needed
- All three fish agencies support adopting the salmon doubling goal
- Improved flows are key to improving salmonid habitat and populations

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4 - 18 - 11

San Joaquin Basin

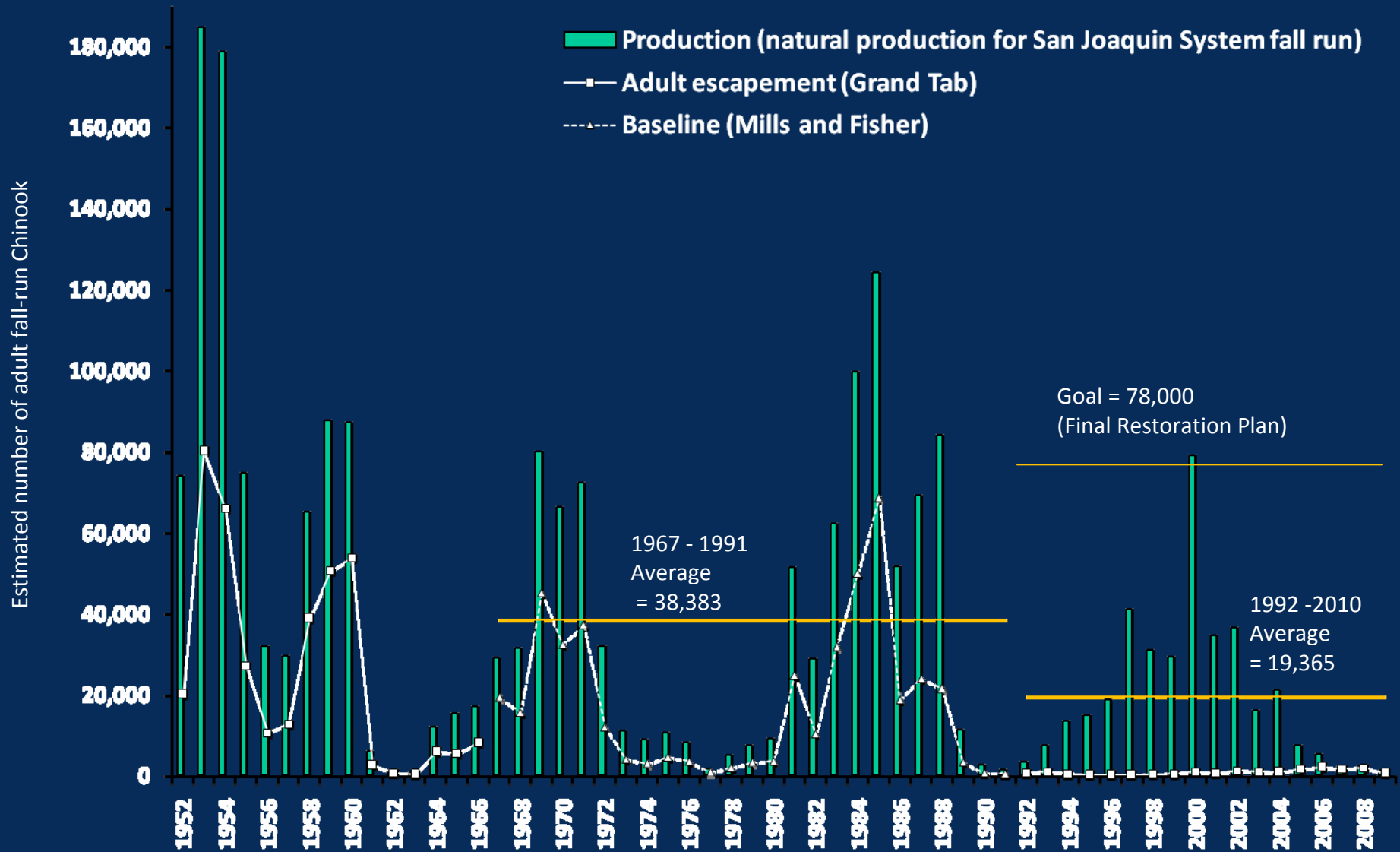


Figure 35. Estimated yearly natural production, and in river escapements of San Joaquin System adult fall-run Chinook salmon. The San Joaquin System is the sum of the Stanislaus, Tuolumne, and Merced Rivers. 1952 - 1966, and 1992 - 2010 numbers are from CDFG Grand Tab (February 2, 2011). Baseline numbers (1967 - 1991) are from Mills and Fisher (CDFG, 1994).



- Improved flows on individual tributaries to the San Joaquin (Stanislaus, Tuolumne, and Merced rivers) are important for salmon doubling in each tributary
- Improved flows on each tributary should contribute to flows at Vernalis (ecological fair share)

Stanislaus

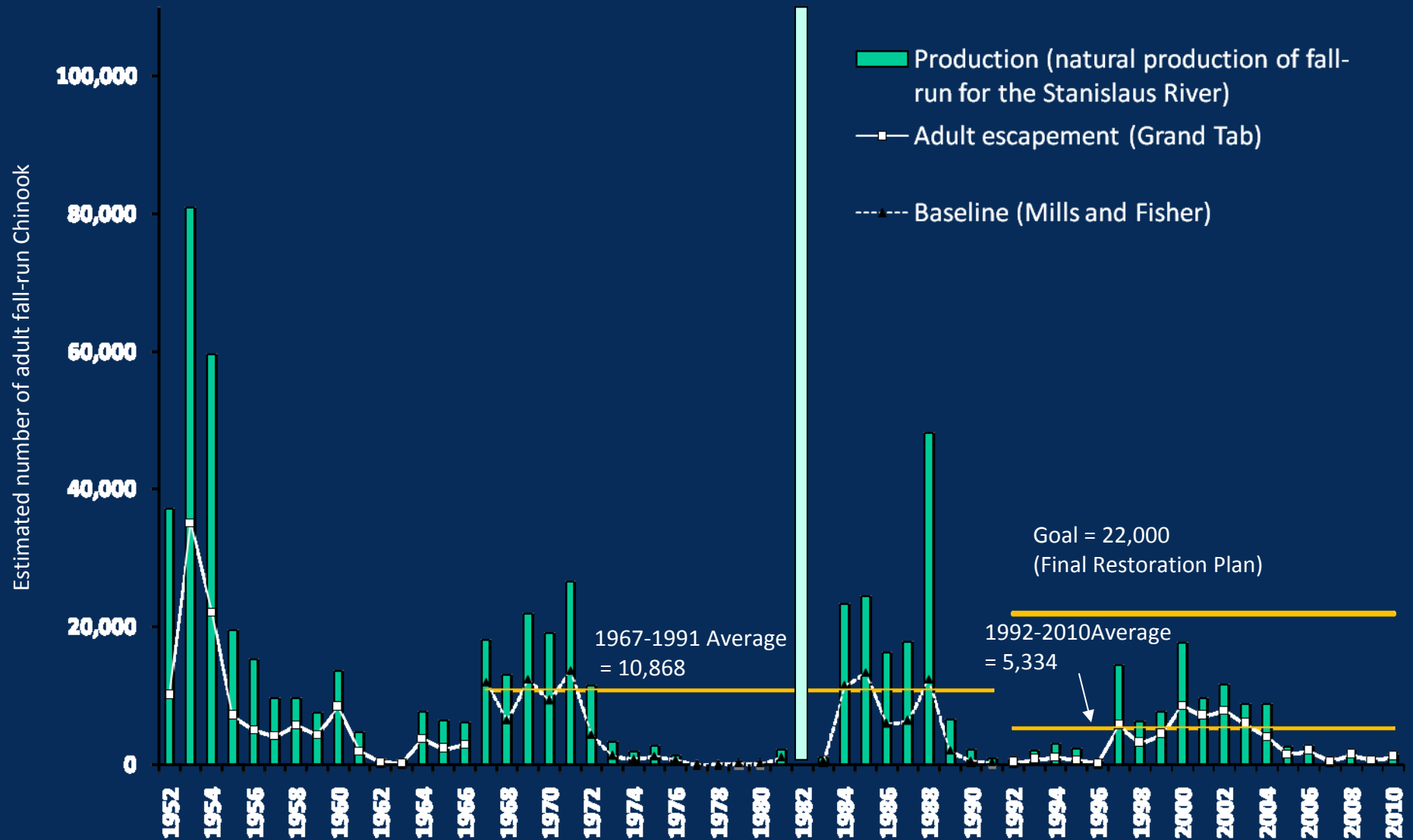


Figure 32. Estimated yearly natural production and in river escapement of Stanislaus River adult fall-run Chinook salmon. 1952 – 1966 and 1992 - 2010 numbers are from CDFG Grand Tab (February 2, 2011). Baseline numbers (1967 - 1991) are from Mills and Fisher (CDFG, 1994). data was not available for 1982.

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Tuolumne

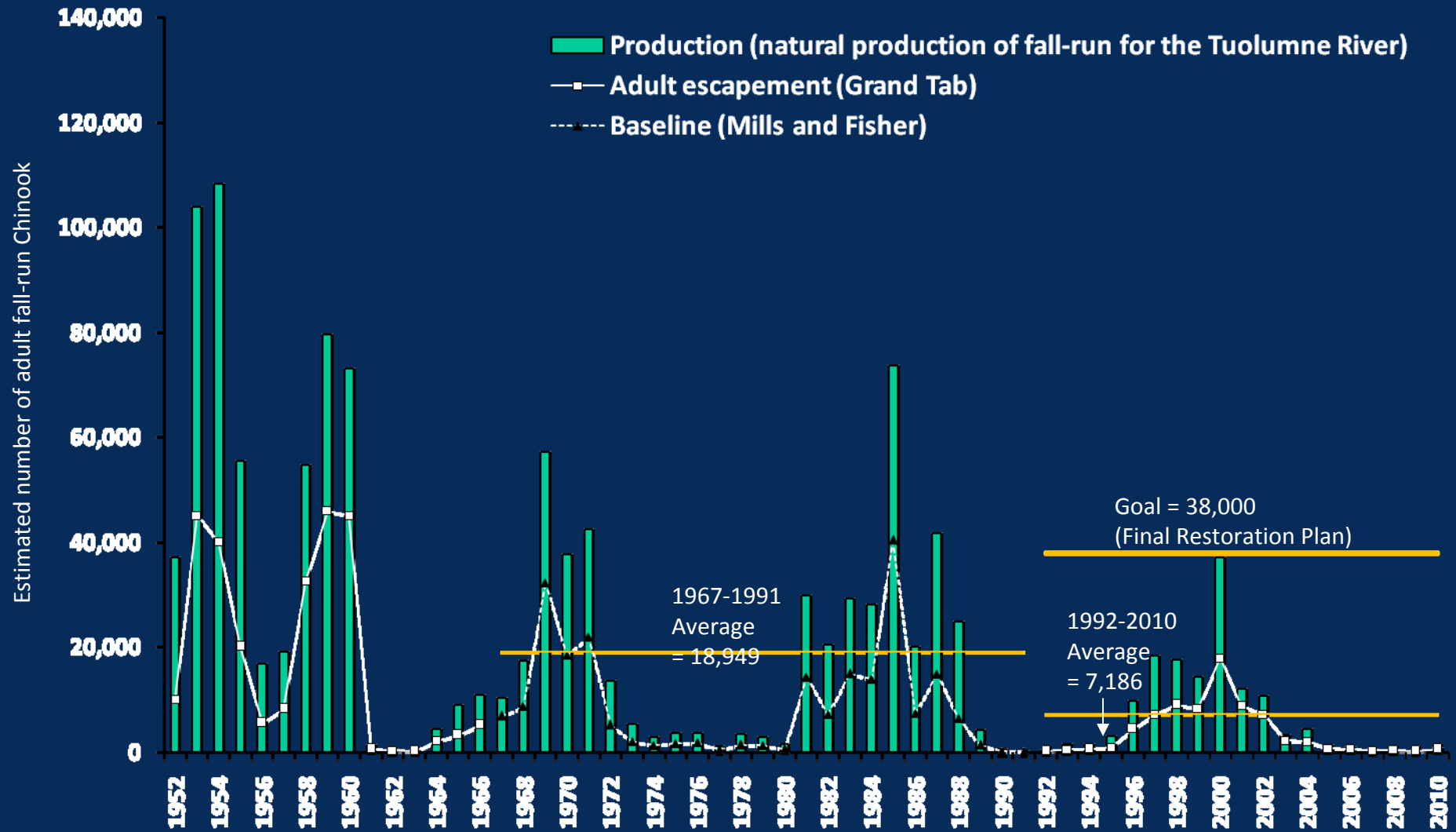


Figure 33. Estimated yearly natural production and in river escapement of Tuolumne River adult fall-run Chinook salmon. 1952 - 1966, and 1992 - 2010 numbers are from CDFG Grand Tab (February 2, 2011). Baseline numbers (1967 - 1991) are from Mills and Fisher (CDFG, 1994).

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Merced

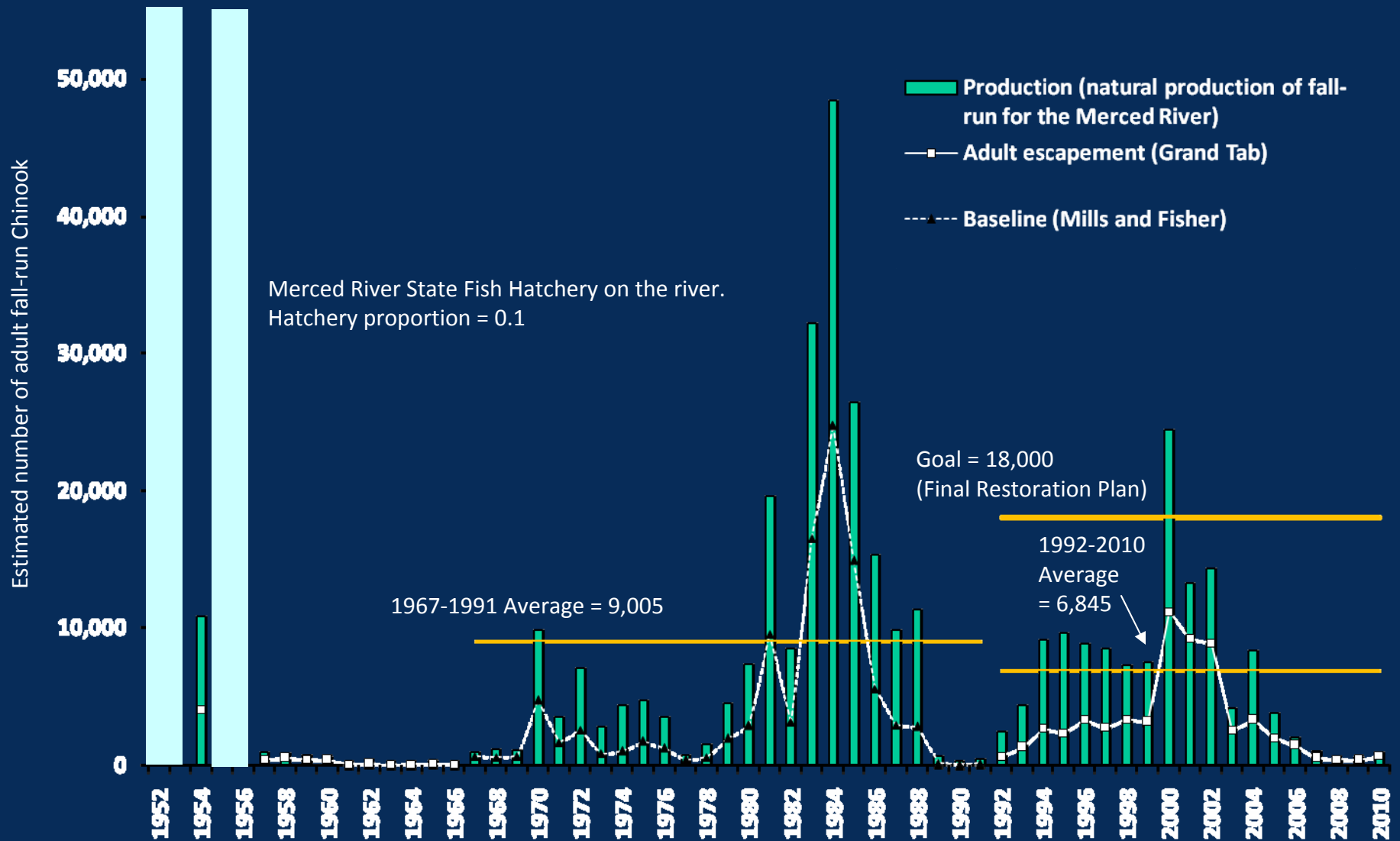
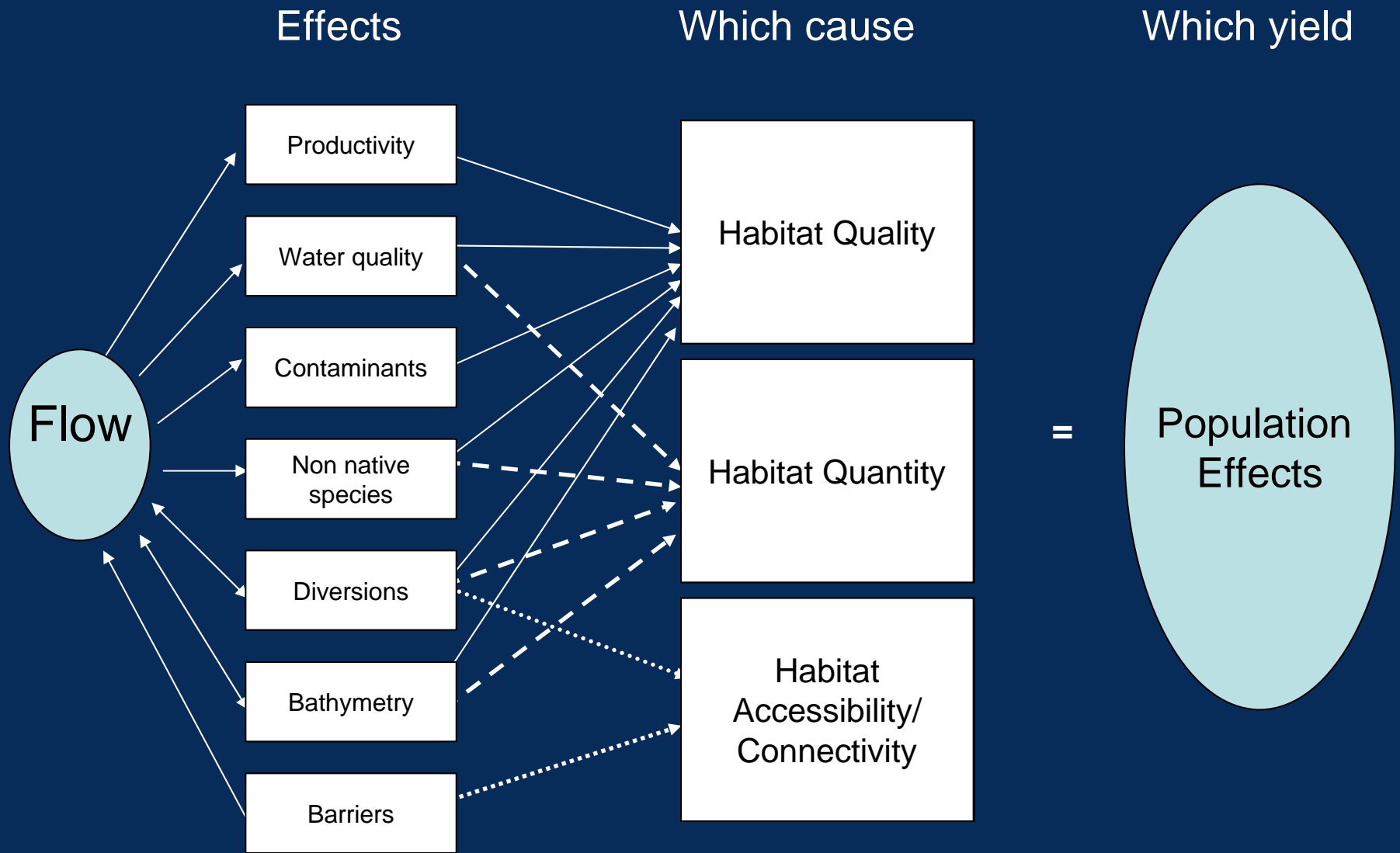


Figure 34. Estimated yearly natural production and in river escapement of Merced River adult fall-run Chinook salmon. 1952 - 1966, and 1992 - 2010 numbers are from CDFG Grand Tab (February 2, 2011). [Green bar] = data was not available for 1952 - 1953, and 1955 - 1956. Baseline numbers (1967 - 1991) are from Mills and Fisher (CDFG, 1994).



- Improved flows should be based on a percent of unimpaired flow and mimic the natural hydrograph
- All flow-related salmonid life-cycle requirements should be considered during key months (February through June, October) as well as the rest of the year
- Flows should be maintained in the tributaries, mainstem San Joaquin, and Delta
- Inundated floodplains are needed for rearing habitat

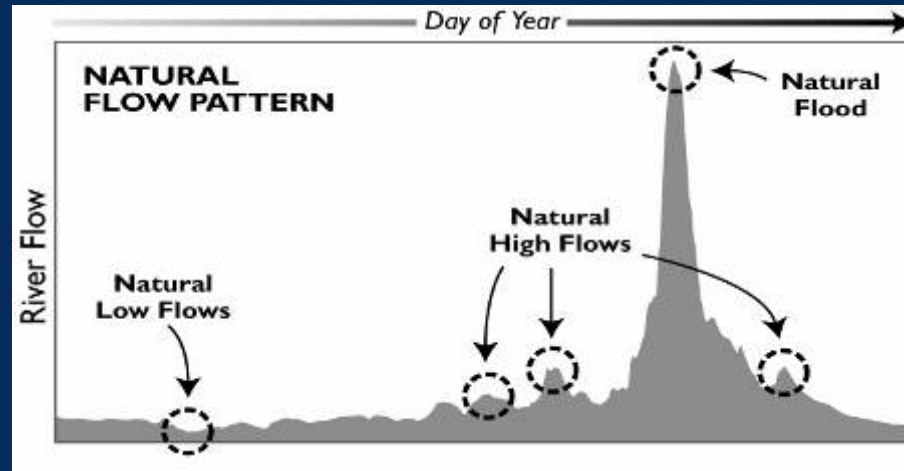
Flow: The master variable



The Pattern Matters



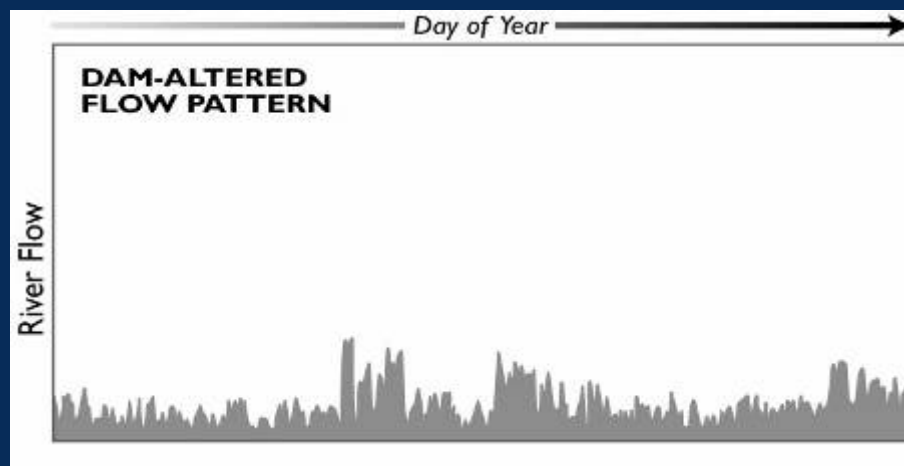
||



= Better for species & ecological systems



||



= Bad for species & ecological systems

This is the same volume!

Inundated floodplains are superior rearing habitat

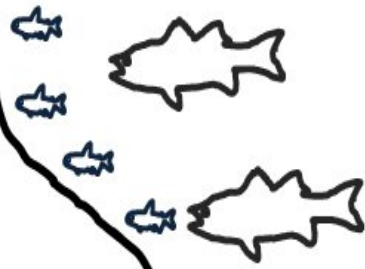


Photo: Jeff Opperman

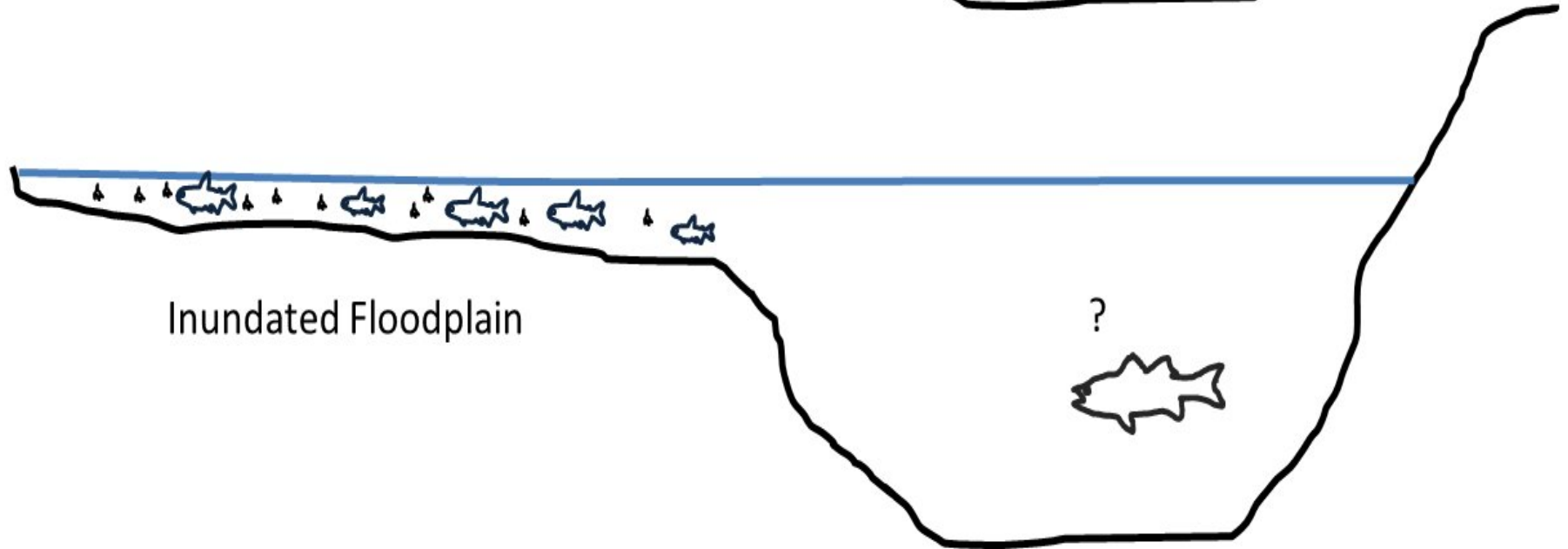




Dry Floodplain



Inundated Floodplain





- Flows should be implemented using an adaptive management framework based on strong science, monitoring, and evaluation
- The implementation plan should incorporate specific biological objectives, model development and application, and specific monitoring at the appropriate scale

Example of Adaptive Mangement

Objective: Juvenile salmon survival through the Delta of 0.5

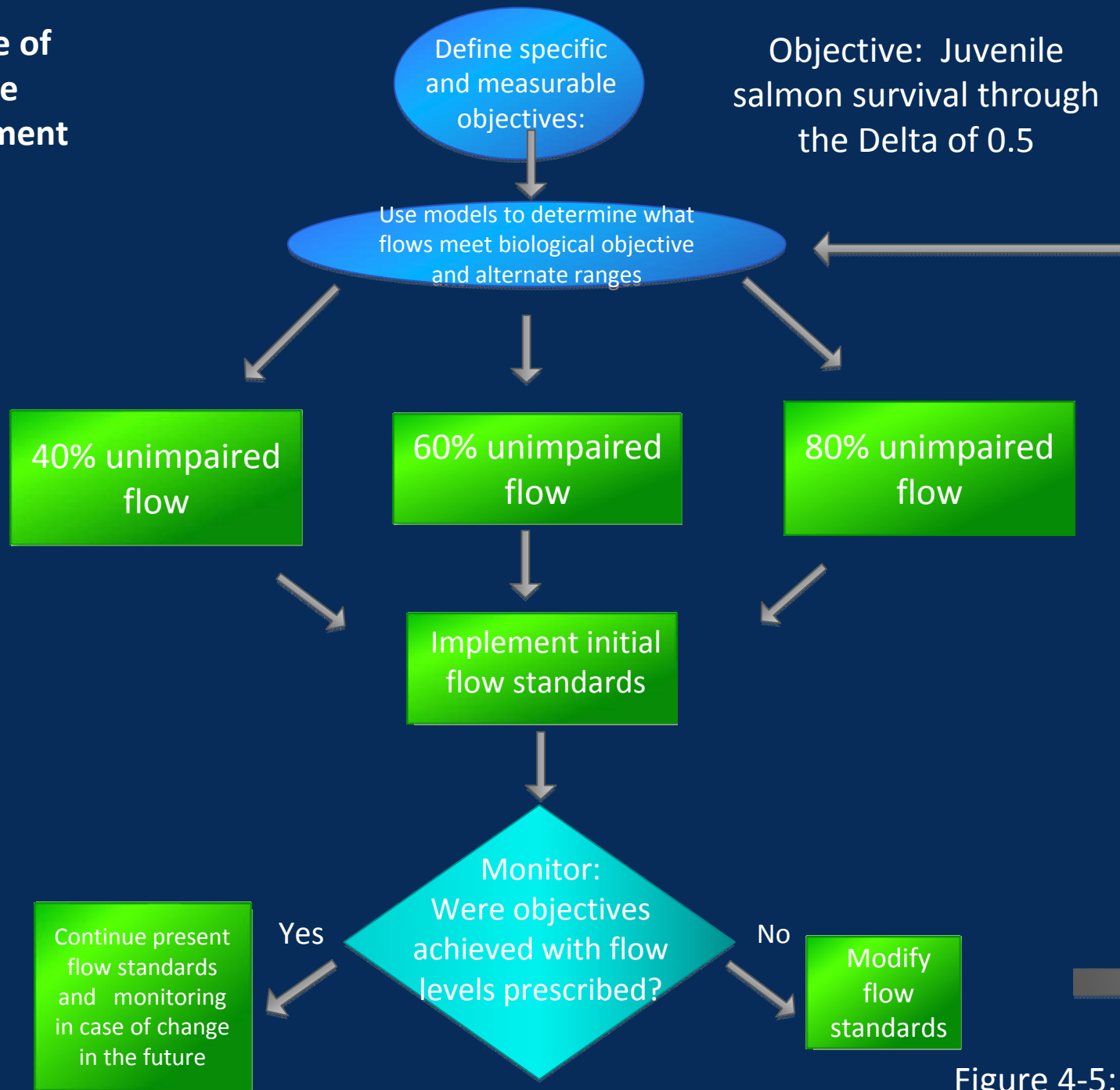


Figure 4-5: DOI, 2/8/11

Summary

- San Joaquin salmonid populations continue to decline – immediate action is needed
- We support adopting the salmon doubling goal
- Improved flows on individual tributaries and at Vernalis are important to salmon doubling
- Improved flows should mimic the natural hydrograph and inundate floodplains
- An adaptive management framework should be based on strong science, monitoring, and evaluation
- New FERC licenses on the Tuolumne and Merced should include flow objectives based on % unimpaired flows that contribute to salmon doubling