Comments on Draft Scientific Basis Report

Lower American River Issues

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12/7/16
Lower American River
- Wild & Scenic
- 23 miles long
- Confluence with Sacramento River
- Home to over 40 fish species including steelhead and fall-run
- Runs through Am. River Parkway
Lower American River: Science-Based Site-Specific Work

- Water Forum Agreement
- Ongoing habitat improvements
- Work to improve Temperature Control Device
- Ongoing scientific studies
- Adaptive management
- Flow Standard in 2006
- Refinements to 2006 Flow Standard

Functional Flows
American River Flow Standard

Refinements

• Promising
  – Storage requirement: for temperature
  – Pulse flow
  – Updates of hydrologic indices and min. flows

• Unsuccessful
  – Unconstrained temperature optimization
  – High spring flows (similar to percent of unimpaired flow approach)
Comparison of Approaches

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Simulated Annual End-of-June Folsom Reservoir Storage (1922-2003)
Comparison of Approaches
End-of-June Folsom Reservoir Storage and MWAT

June Storage vs. Max. Weekly Average Temperature (MWAT)

Lower spring storage means warmer water (less healthy) temperature for fish.
Comparison of Approaches
Simulated Daily American River at Watt Avenue Bridge Water Temperatures for July through September (1922-2003)
Current Am. River Watershed Contribution to the Delta

- Flow at Mouth
- Diversion at Sac River (City of Sac)
- Diversion at Freeport
- Discharge at Regional Sanitation

Contribution to Delta
Current Am. River Watershed Contribution to the Delta

January-June Unimpaired American River Flow
Conclusions Regarding American River Flow Standards

- Current Am. River Watershed Contribution to the Delta under corrected flows:
  - 40 to 140% of unimpaired flow (65% median)
    (Jan thru June percent measured at Freeport)
- Water Forum approach: functional flows
  - Significant improvements to water temperatures (especially for juvenile steelhead)
  - Substantially better than high spring flow approach
  - Includes pulse flow and storage requirement
  - Supported by broad stakeholder coalition
  - Preferable to “percent of unimpaired flow” approach