

**State, Federal Agencies and Sacramento River Settlement Contractors
Agree on Framework for Water Operations in Fourth Year of Drought**

SWRCB Drought Activities Workshop

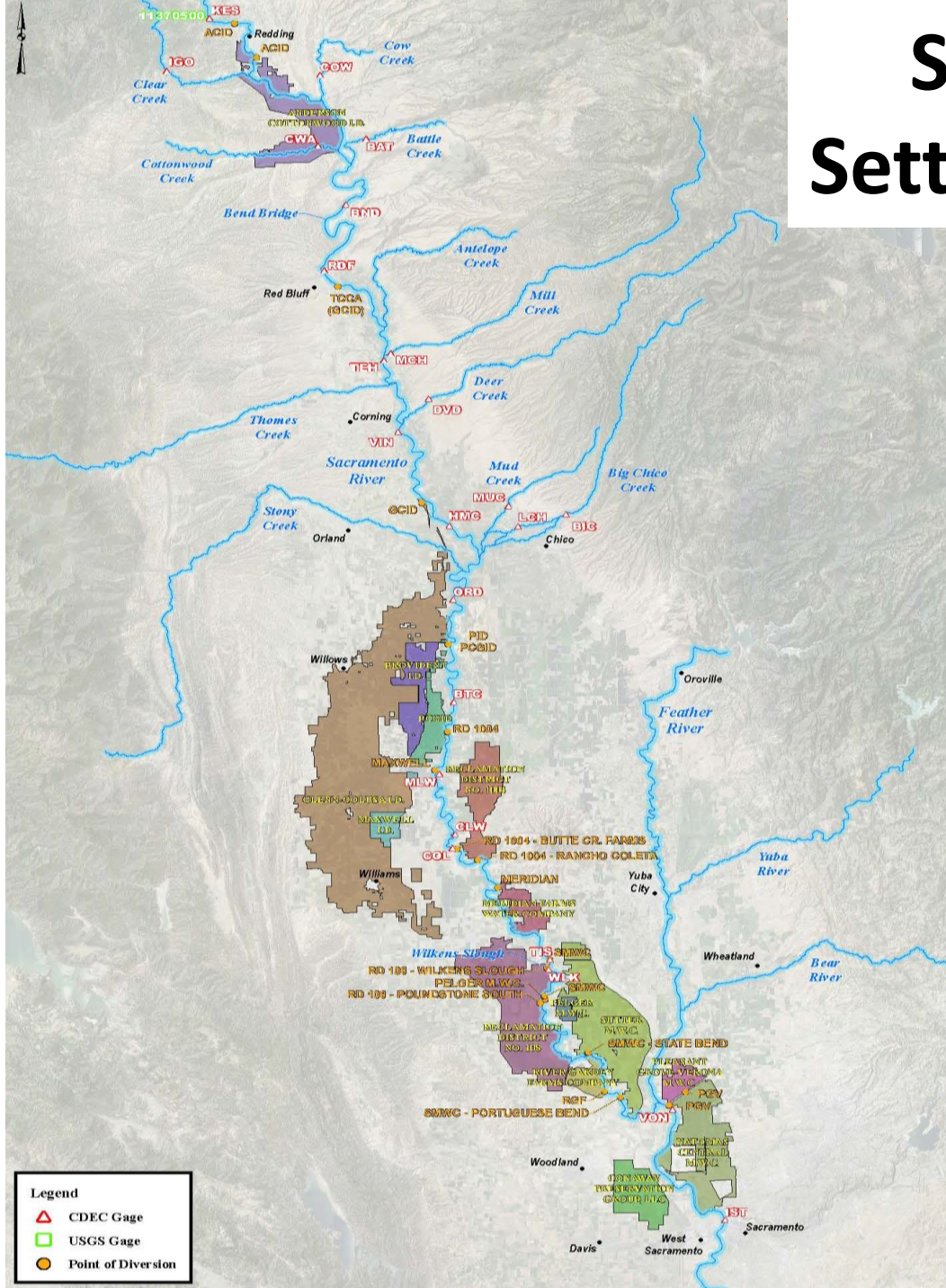
May 20, 2015

Key Points of Framework

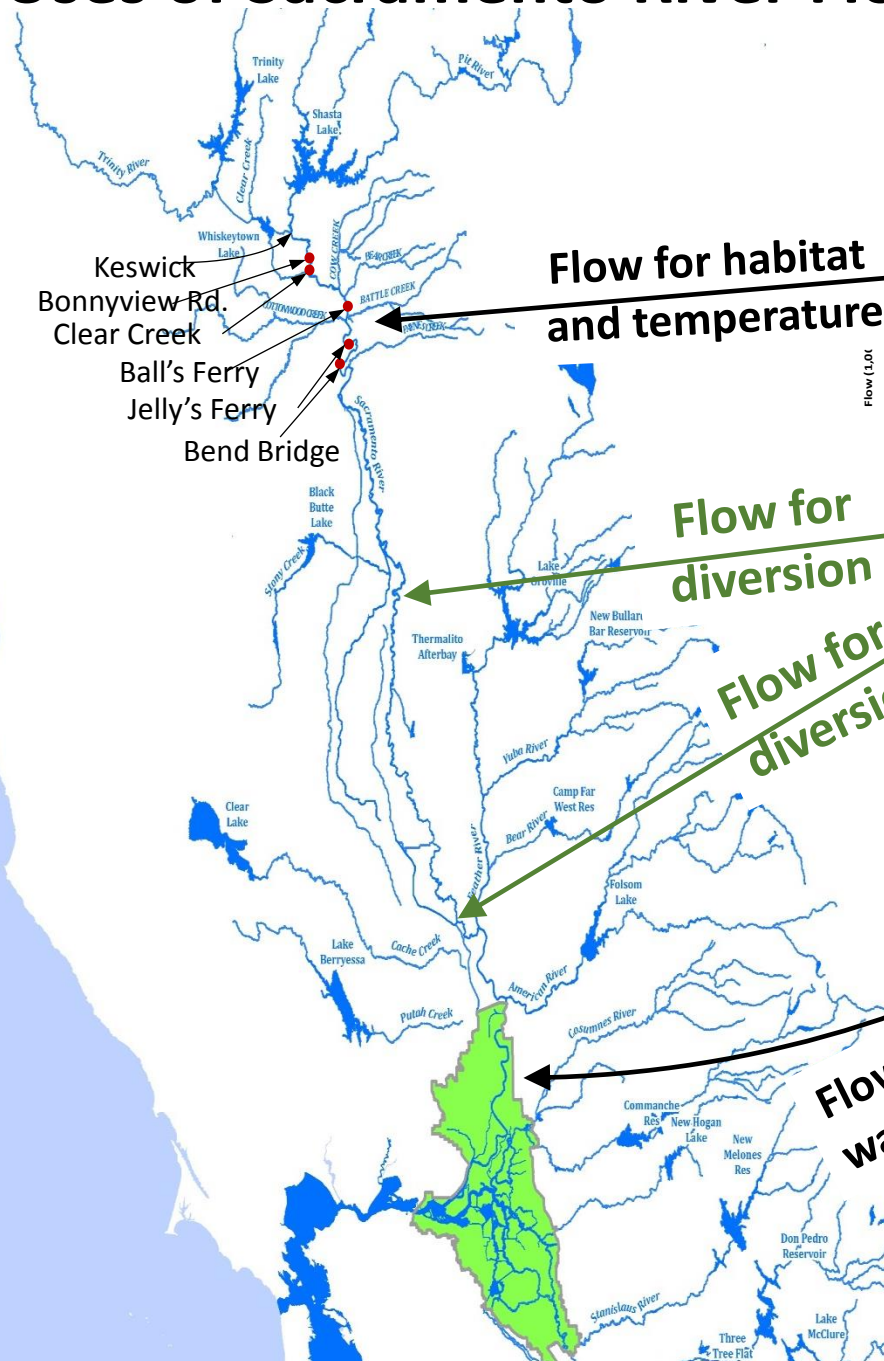
- Upstream temperature management for winter-run salmon
- Sacramento River Settlement Contractors (SRSC) coordinated and capped diversion pattern
- Water transfers in-basin and out-of-basin, coordinated with fall operations and fall run salmon
- Maximizing in-basin land use and habitat benefits for wildlife, including giant garter snake, refuges, and Pacific Flyway
- Using local supplies like groundwater to help limit SRSC diversions
- Coordination with local Refuges on diversion patterns and offsetting demands in April-May
- Coordination with fishery agencies, including assisting with real time monitoring and data evaluation
- KLOG



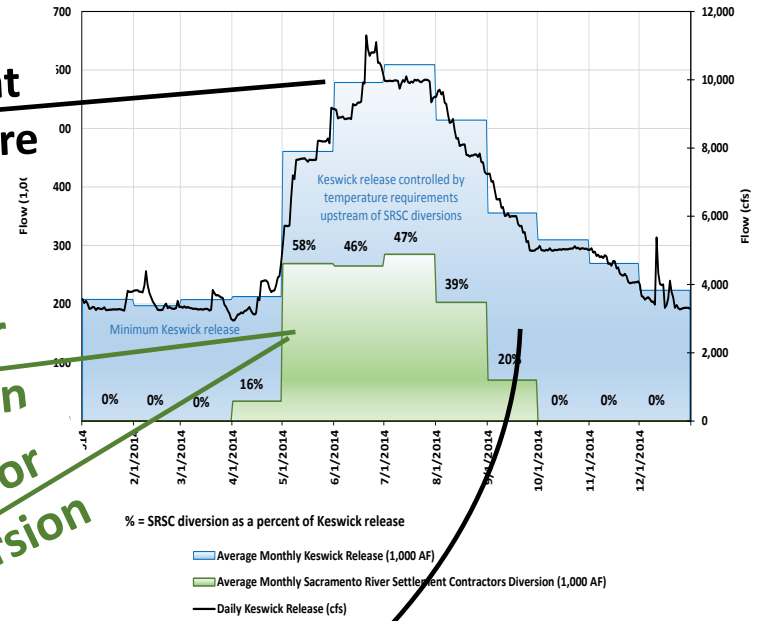
Sacramento River Settlement Contractors



Uses of Sacramento River Flow at Keswick



Keswick Release and SRSC Diversion



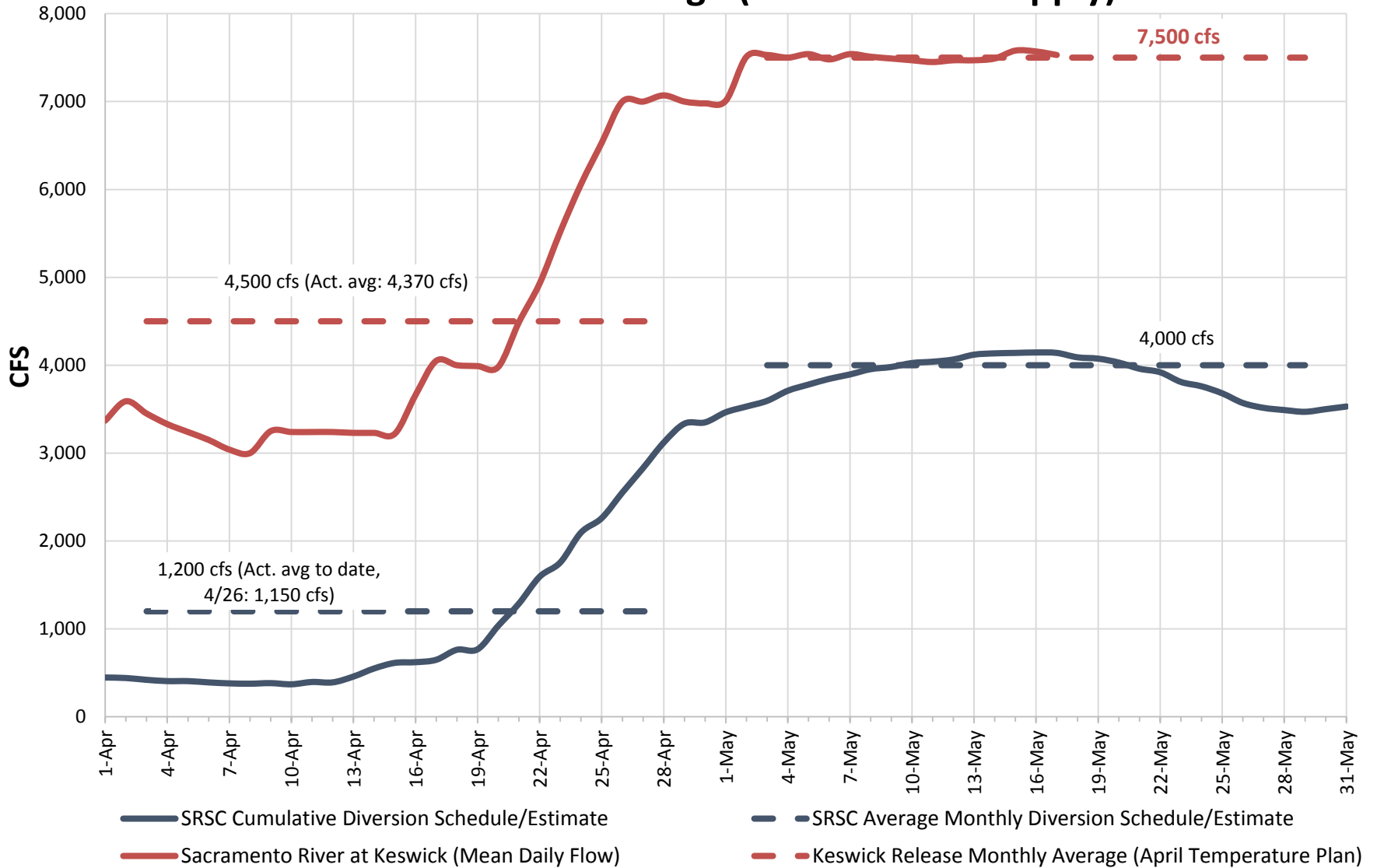
Flow for habitat and temperature

Flow for diversion

Flow for diversion

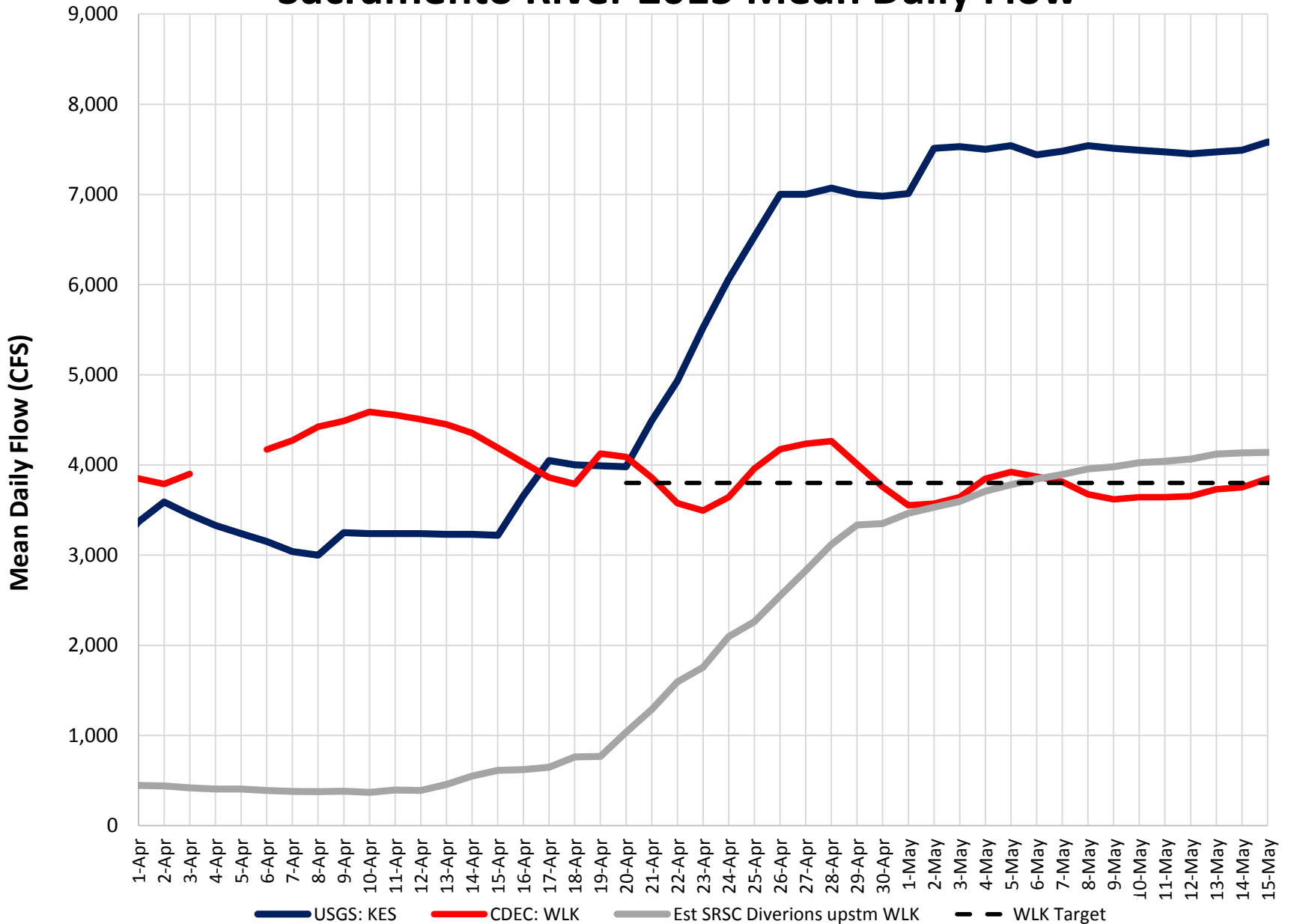
Flow for habitat, water levels, water quality, and Delta needs

Sacramento River Settlement Contractors Estimated Cumulative 2015 Diversions Keswick to Wilkins Slough (75% Contract Supply)



Note: Diversions are based on estimated schedules from the 9 major Sacramento River Settlement Contractors upstream of Wilkins Slough obtained 4/26/15.

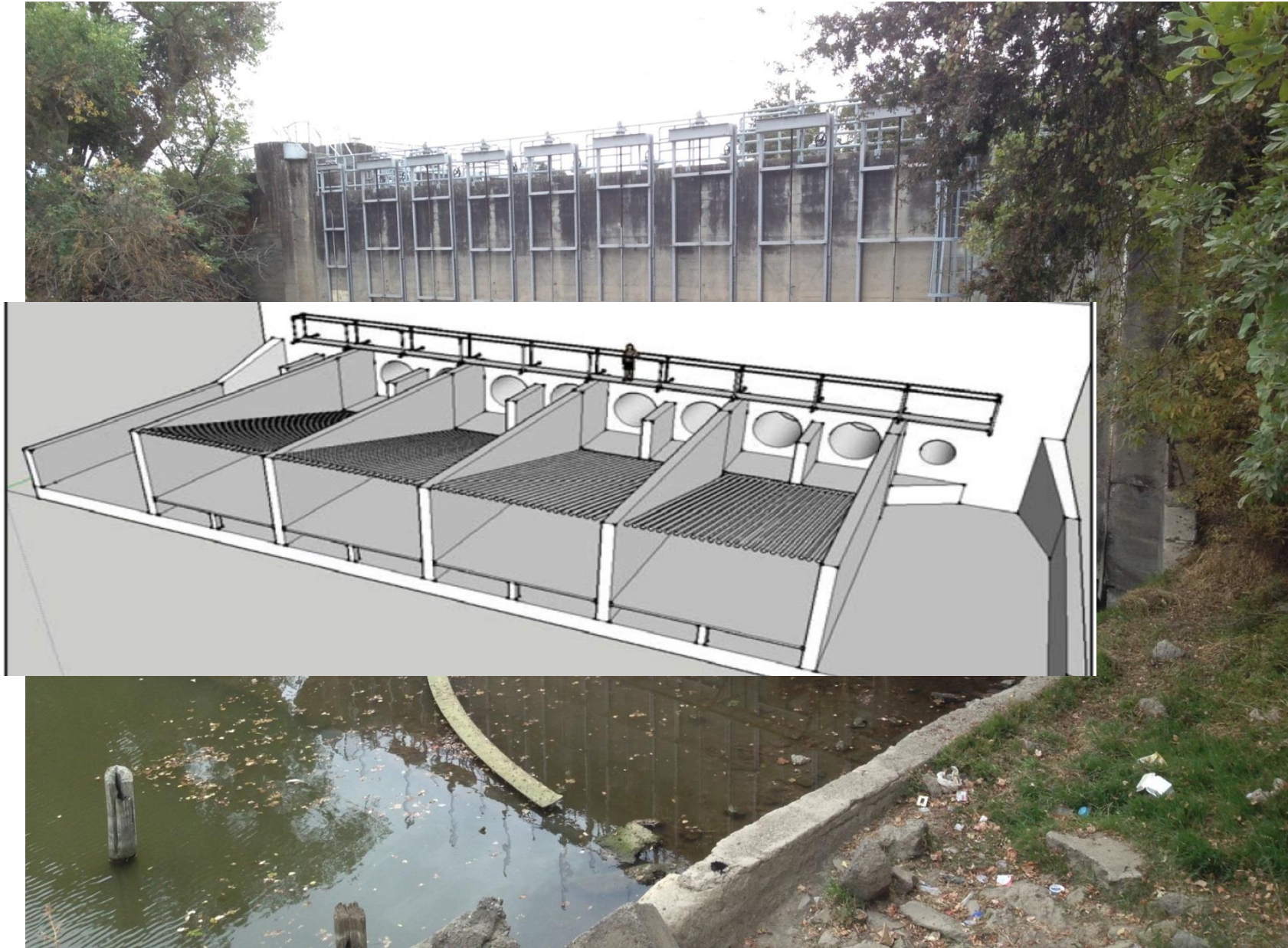
Sacramento River 2015 Mean Daily Flow



2015 vs. 2014 – What's Better

- Higher Storage in April and May +250,000 AF
- Improved Coordination with Agencies
- SRSC's on even tighter and more restrictive flow pattern
- Increased transfers +100,000 AF carryover through summer
 - Fall Sacramento River stability for fall run salmon spawning
- Real Time/Adaptive Management
 - Power Generation Bypass
 - 1,500 cfs
 - April 16 – Present
 - \$30k per day
- Coordination with USBR on Delta operations

KLOG – Knights Landing Outfall Gates

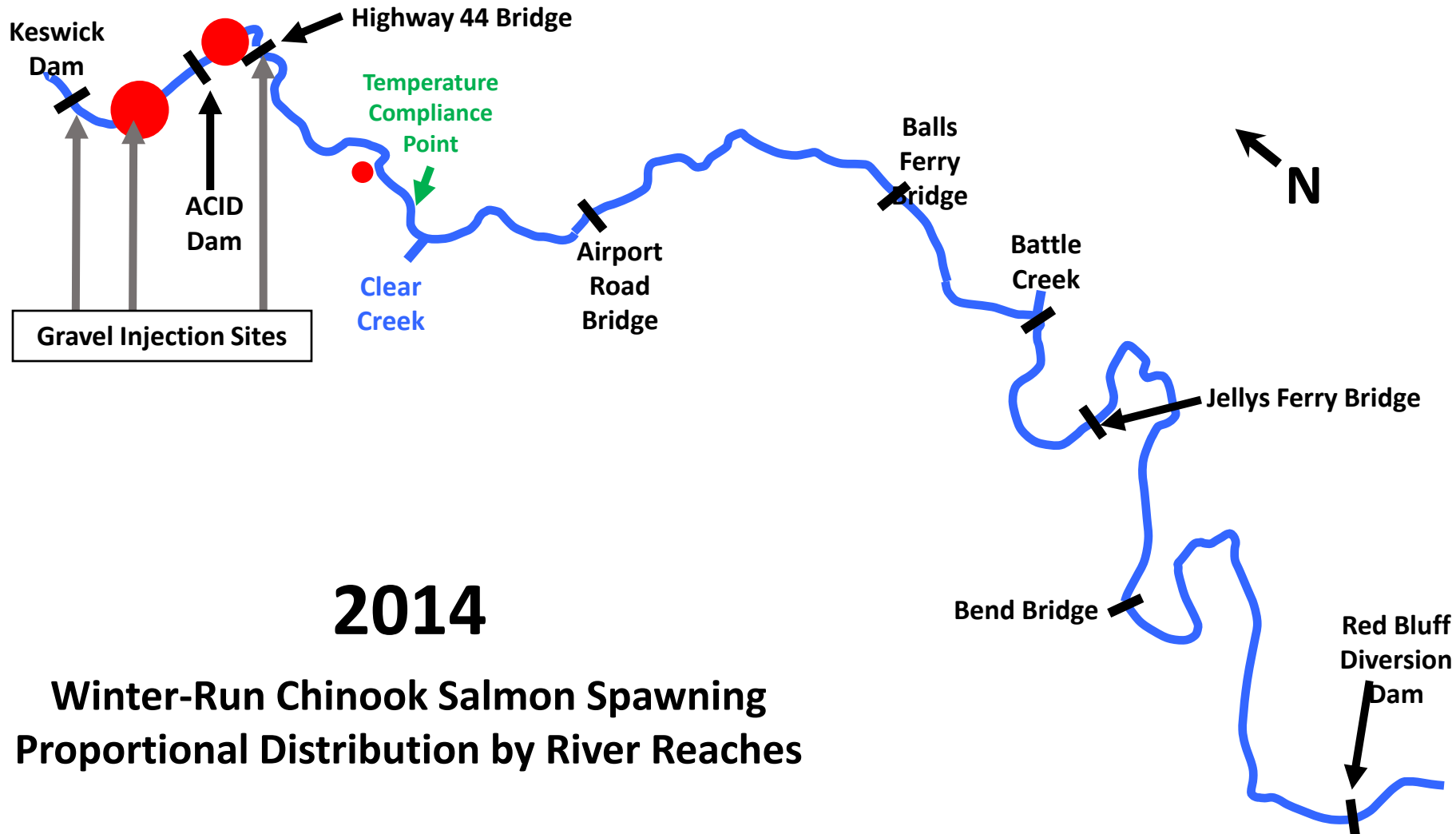


Painters Riffle – Completed in 2014



Pre-restoration and post-restoration photos

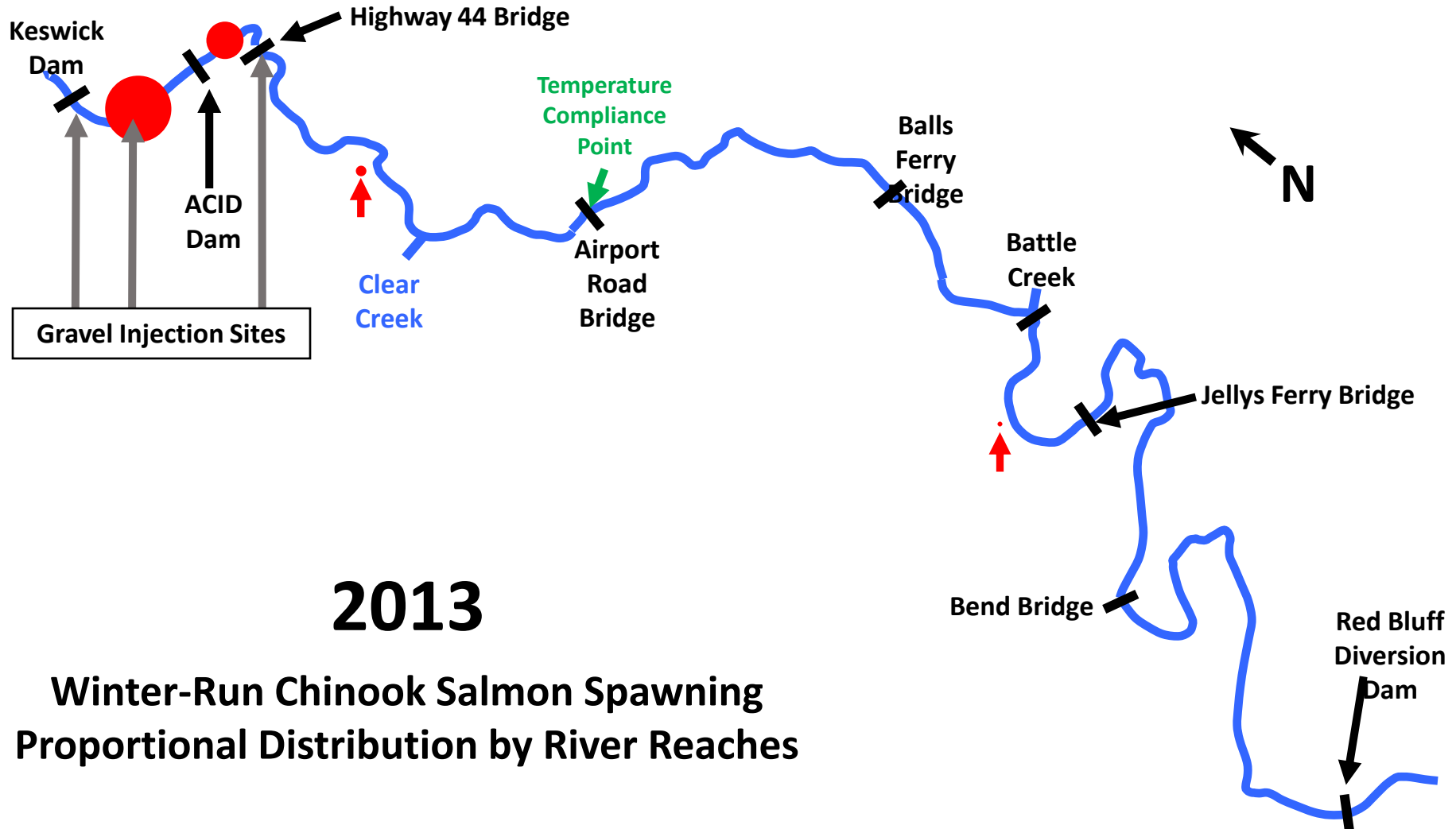
Real Time Winter Run Monitoring



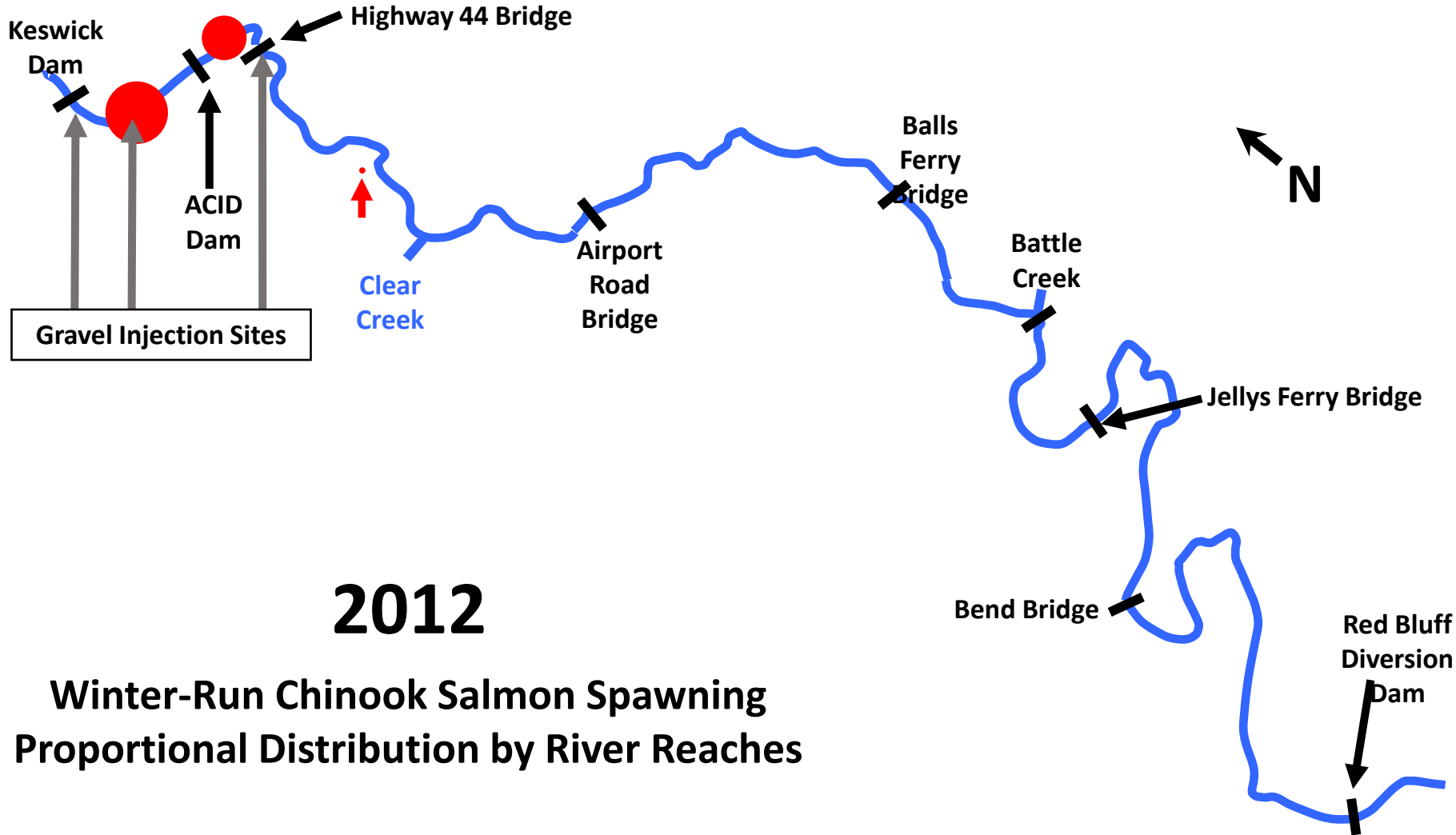
2014

**Winter-Run Chinook Salmon Spawning
Proportional Distribution by River Reaches**

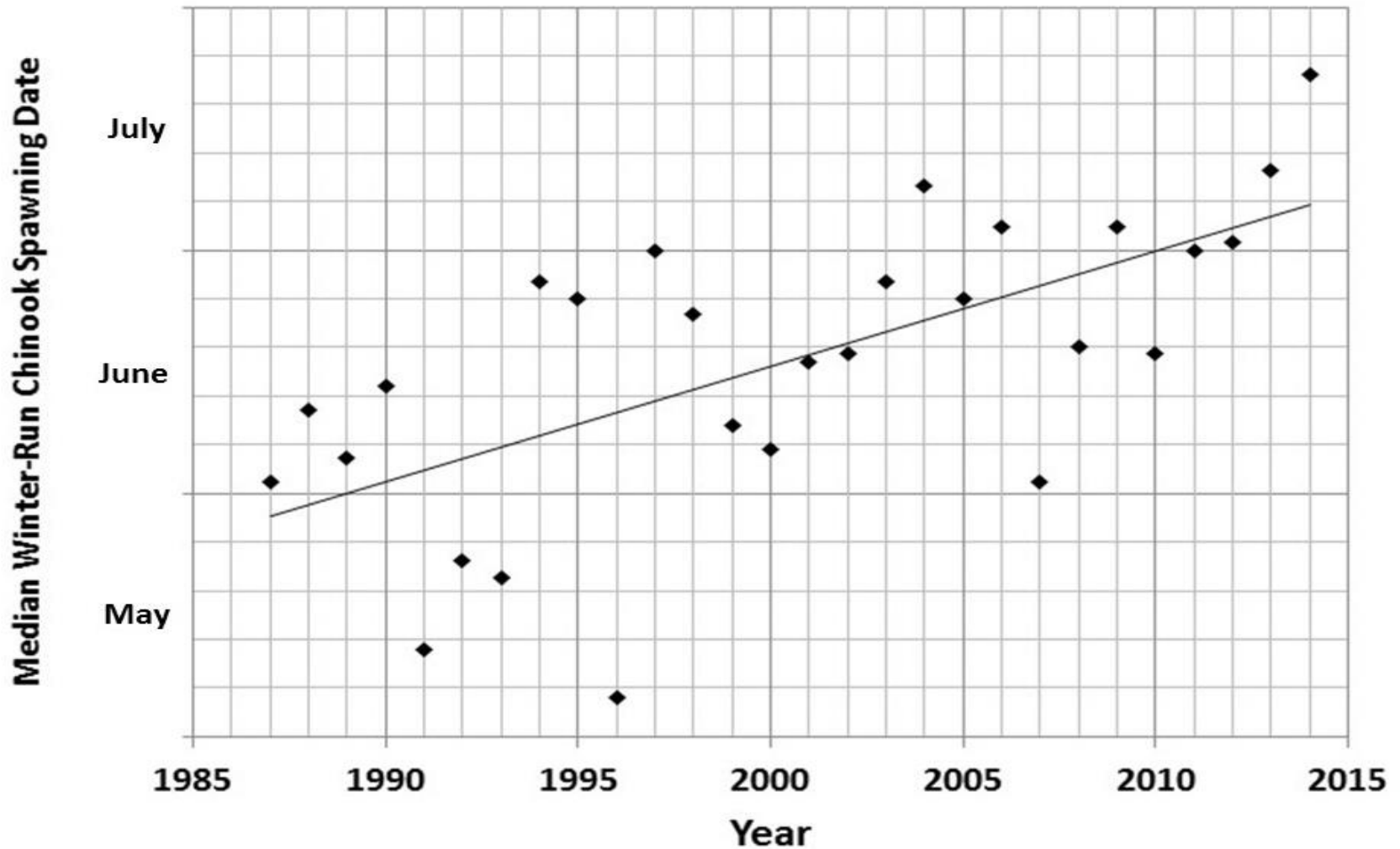
Real Time Winter Run Monitoring



Real Time Winter Run Monitoring



Winter Run Spawning Dates – Work with Agencies on Answers



Looking Forward – Accountability not Failure

- USBR and SRSC's are being and will be accountable to SWRCB and agencies
- Continue to foster partnership with fishery agencies
 - Real time monitoring of temperatures, including additional temporary locations
 - Real time monitoring of spawning locations
 - Further evaluation of fishery data and survival calculations
- Fall operations
 - Improving flow regimes for fall run salmon via transfers
 - Fall habitat flooding for shorebirds and Pacific Flyway