

Hugo B. Fischer Award Acceptance Presentation: Local, Regional, and Statewide Systems Modeling

May 12, 2025

Thank You!

Jay Lund (UCD) & the CALVIN Research Group

Mike Deas (Watercourse) & Colleagues at Watercourse

Staff at:

Los Angeles Department of Water and Power

City of Santa Rosa

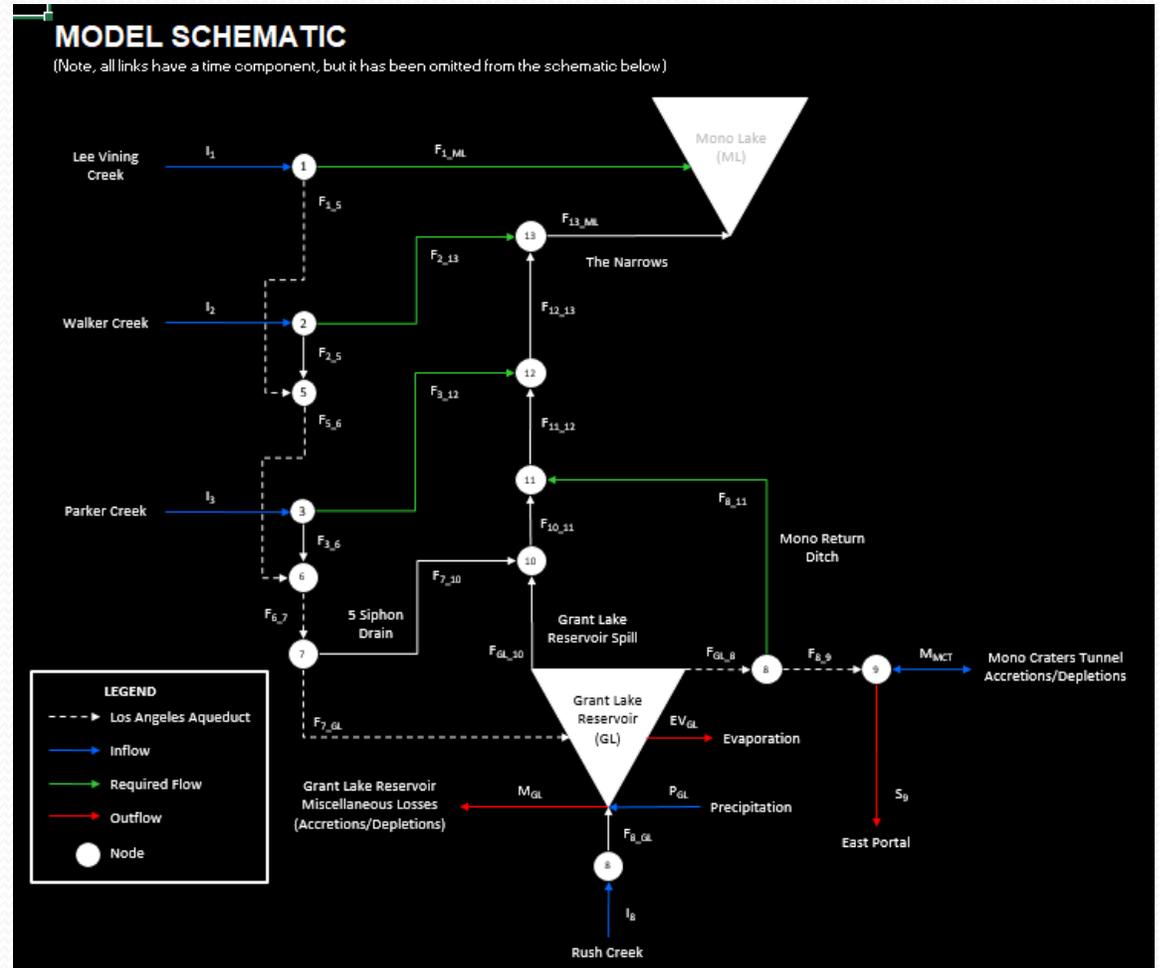
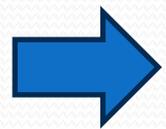
Sonoma Water

Town of Windsor

Dave Smith (Merritt-Smith Consulting)

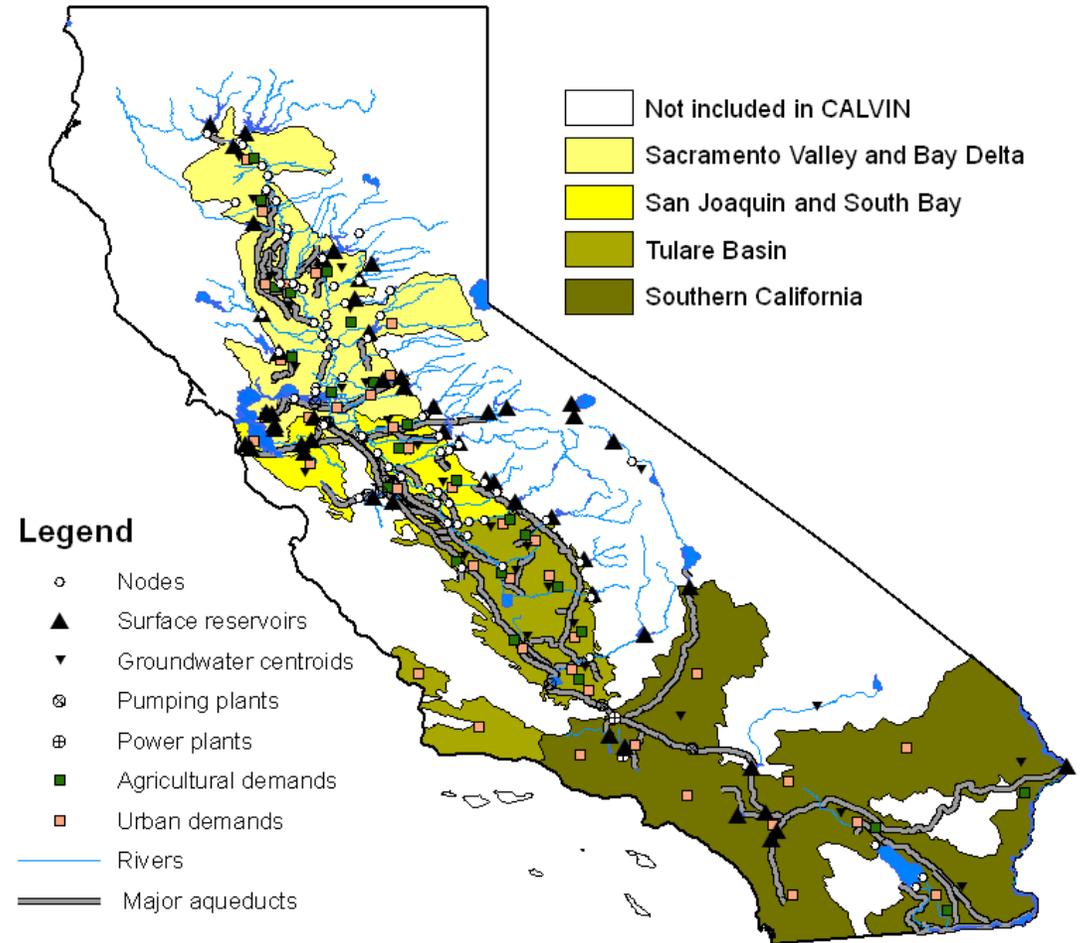
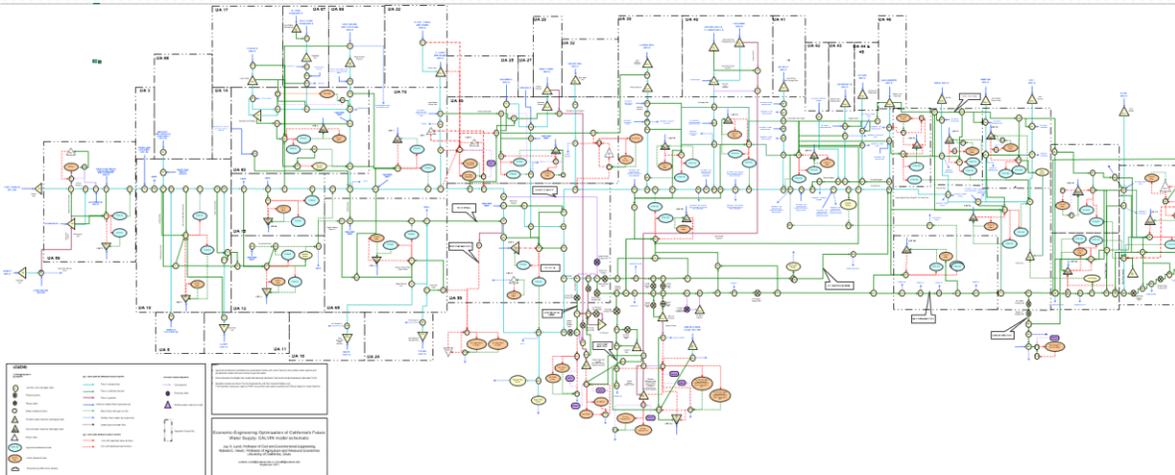
CWEMF!

System Models



CALVIN

- Statewide optimization model to assess impacts of different demands and operations
- Model domain versus 'real' world

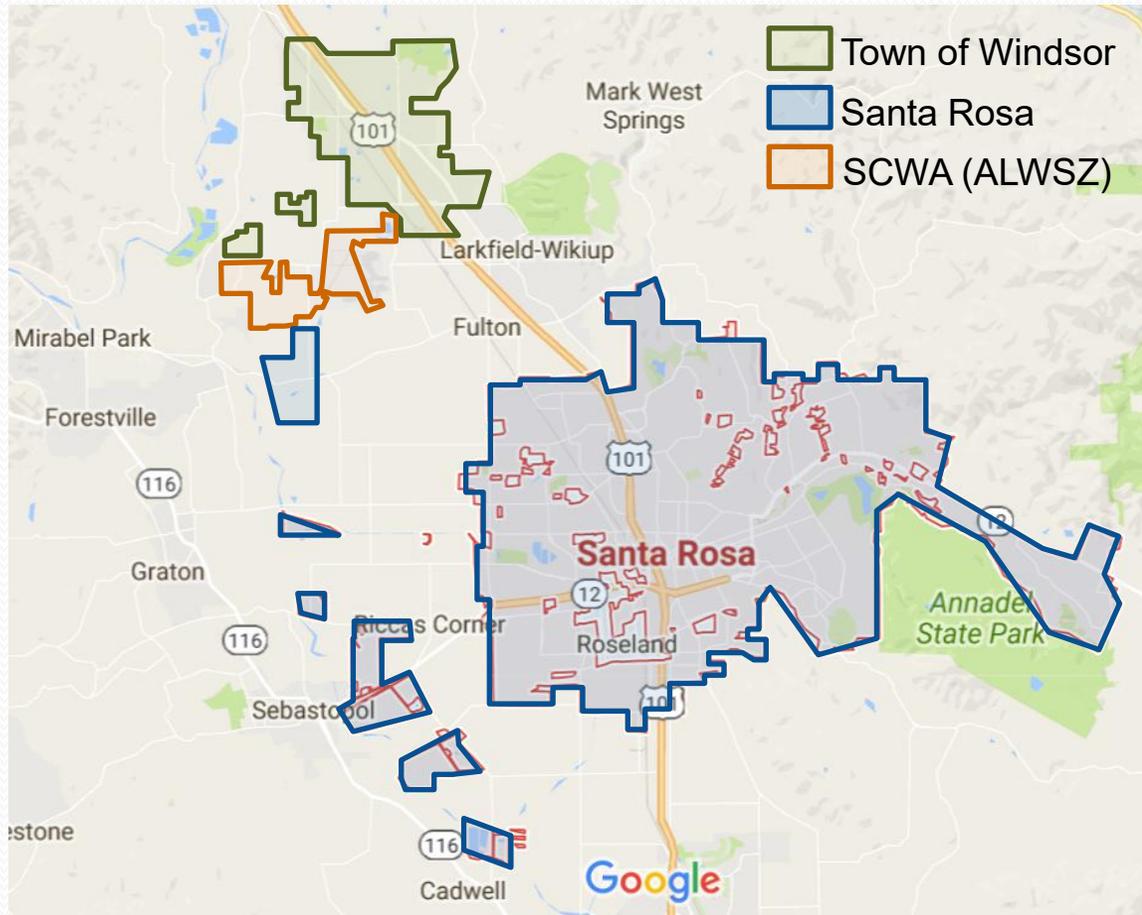


eSTREAM



- Assess system responses to:
 - Stream flow requirements
 - Operating rules
 - Export targets
 - Facility and infrastructure capacities and configurations
- Staff & Stakeholder development process
- Staff can and do use the model

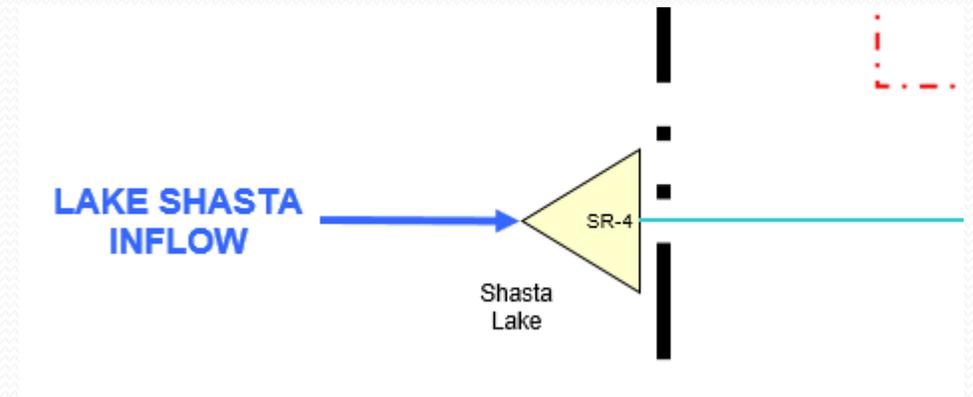
Joint Use Water Balance Model (JUWBM)



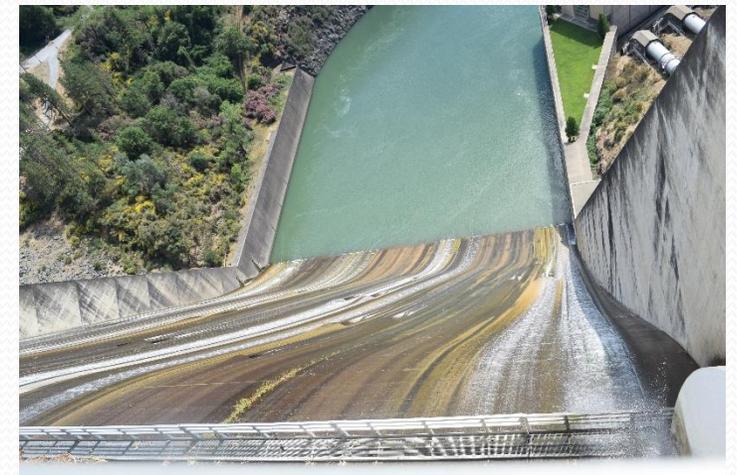
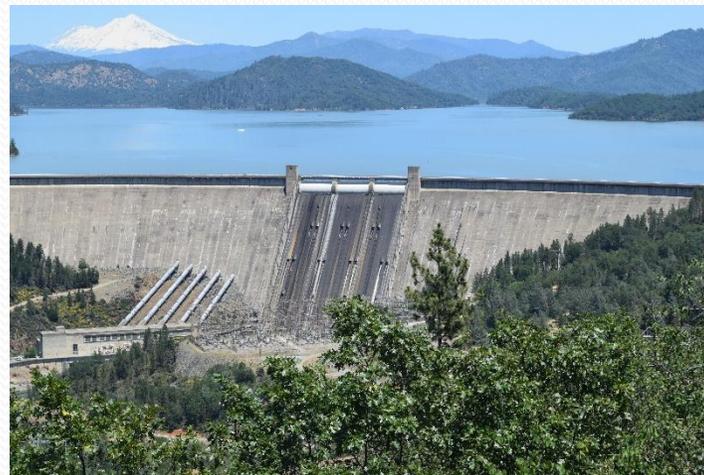
- Developed to identify local and regional operational and infrastructure changes that would reduce discharge and increase recycled water usage.
- Operators provided system data (infrastructure, operations, capacities, etc.)
- “Yeah, that’s what we expect”

Closing Thoughts

- Model represent real systems with real world impacts
- Operator and stakeholder involvement is critical
- Visit the sites you model; talk with the operators



Detail: CALVIN Schematic





Thank you!

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