

SUMMARY OF SESSIONS

Monday, September 23

Time	Session	Moderator	Room
8:00 – 8:30	Registration		Sierra Hallway
8:30 – 10:15	1. Connecting Physical & Fishery Modeling	James Gilbert	Sierra 1
	2. Overview of DWR’s Basin Characterization Program	Mesut Cayar	Folsom/Natoma
10:15 - 10:30	Break		
10:30 - 12:15	3. CWEMF 30 th Anniversary Celebration	Paul Hutton	Sierra 1
12:15 – 1:00	Lunch - Included in registration fee		
1:00 – 2:00	4. CWEMF Awards Ceremony	Jesse Jankowski	Sierra 1
2:00 – 2:05	Break		
2:05 – 3:15	5. Pop-up Talks	Stacy Tanaka	Pavilion
3:15 – 3:30	Break		
3:30 – 5:15	6. Colorado River Basin Modeling	Rich Juricich	Sierra 1
	7. CVP Water Temperature Platform, Chapter 3	Yung-Hsin Sun	Folsom/Natoma
5:30 - 8:00	8. Social		Sierra 1

SUMMARY OF SESSIONS

Tuesday, September 24

Time	Session	Moderator	Room
7:30 - 8:00	Registration		Sierra Hallway
8:00 – 9:45	9. Delta Salinity Management in Drought: Surrogate Development under Drought, Landscape Change and Sea Level Rise	Eli Ateljevich	Sierra 1
	10. Improved Groundwater-Surface Water and Water Allocation Models and Data to Support Water Management in the Scott River and Shasta River Watersheds	Shahab Araghinejad	Folsom/Natoma
9:45 - 10:00	Break		
10:00 – 11:45	11. Consultation on the Coordinated Long-Term Operation of the CVP and SWP	Amanda Becker	Sierra 1
	12. History of Modeling Tools	Vivek Bedekar	Folsom/Natoma
11:45 - 12:30	Lunch - Included in registration fee		
12:30 - 1:10	13. Keynote Address – Dr. Jay Lund	Jesse Jankowski	Sierra 1
1:10 - 1:15	Break		
1:15 – 3:00	14. CalSim3 Changelog (Live)	Zachary Roy	Sierra 1
	15. Water Quality, Emerging Contaminants and PFAS Modeling	Reza Namvar	Folsom/Natoma
3:00 - 3:15	Break		
3:15 - 5:00	16. Hydrology/Climate Change	Ryan Lucas	Sierra 1
	17. Advancing Aquifer Recharge Modeling: Integrating Process-Based Models for Enhanced Representation of Water Quantity and Quality	Menberu Meles	Folsom/Natoma
5:00 - 7:00	18. Poster Session * & Social	Stacy Tanaka	Sierra 1

* Posters will be set up by 10:00 am and available for viewing all day. Presenters will be available from 5:00 to 7:00 pm.

SUMMARY OF SESSIONS

Wednesday, September 25

Time	Session	Moderator	Room
7:30 - 8:00	Registration		Sierra Hallway
8:00 – 9:45	19. Reclamation specific LTO Analyses	Drew Allan Loney	Sierra 1
	20. California Aqueduct Subsidence Program (CASP) Modeling: Panel Discussion	Jeff Weaver	Folsom/Natoma
9:45 - 10:00	Break		
10:00 – 11:45	21. Shasta Operations	Ryan Lucas	Sierra 1
	22. Innovative Approaches to Water Mgt. & Ecosystem Sustainability in the California Central Valley & Delta	Nicole Osorio	Folsom/Natoma
11:45 - 1:15	Lunch at area restaurants		
1:15 - 3:00	23. Integrated Modeling for the Central Valley Project Improvement Act (CVPIA) Structured Decision-Making Process	Mark Tompkins & Rod Wittler	Sierra 1
	24. Groundwater Grab Bag	Abdul Khan	Folsom/Natoma
3:00 - 3:15	Break		
3:15 – 5:00	25. The Collaboratory Starts Now	Lisamarie Windham-Myers	Sierra 1
	26. Reclamation Grab Bag	Maribeth Kniffin	Folsom/Natoma

AGENDA

Monday, September 23

8:00 – 8:30 a.m. – Registration in Sierra Hallway

Refreshments sponsored by Sunzi Consulting LLC

8:30 – 10:15 a.m.

Session 1. Connecting Physical & Fishery Modeling

Moderator: James Gilbert (UC Santa Cruz / NMFS)

Location: Sierra 1

1. The Winter Run Lifecycle Model for Scenario Analysis in the Central Valley – Ann-Marie Osterback (UC Santa Cruz)
2. Connecting managed water operations with salmon disease in Central Valley rivers – Miles Daniels (UC Santa Cruz / NMFS)
3. Hydrological Modeling and Climate Change Analysis to Support Pajaro Valley Ecological Floodplain Inundation Potential (EcoFIP) – Tapash Das & Syed Azhar Ali (Jacobs)
4. Exploring beyond the historical sequence to understand how multi-year drought characteristics affect Winter Run salmon in California – James Gilbert (UC Santa Cruz / NMFS)

Session 2. Overview of DWR's Basin Characterization Program

Moderator: Mesut Cayar (Woodard & Curran)

Location: Folsom/Natoma

1. An Introduction to DWR's Basin Characterization Program – Katherine Dlubac & Steven Springhorn (DWR)
2. DWR's Basin Characterization Program: Data Access, Management, and Visualization – Benjamin Brezing (DWR)
3. Geophysical and hydrogeologic investigations to characterize the subsurface near the Upper San Joaquin River – Ian Gottschalk & Frederik Christensen (Ramboll)
4. Developing Conceptual Models and Parameterizing Numerical Models using AEM and Other Hydrogeologic Data Types – Matt Tonkin (SSP&A) and Mesut Cayar (Woodard & Curran)

10:30 a.m. – 12:15 p.m.

Session 3. CWEMF 30th Anniversary Celebration

Moderator: Paul Hutton (CWEMF Executive Director)

Location: Sierra 1

1. Introduction – Paul Hutton (CWEMF Executive Director)
2. Role of Models in California Water – Walter Bourez (MBK)
3. Panel Discussion: Looking Forward
 - Ben Bray (EBMUD)
 - Greg Gartrell (PPIC Adjunct Fellow, Independent Consultant)
 - Jesse Jankowski (CWEMF Convener, SWRCB)
 - Tara Smith (DWR retired)
 - Stacy Tanaka (Watercourse Engineering)

12:15 – 1:00 p.m.

Lunch

Pick up a box lunch and then join us for the CWEMF Awards Ceremony in Sierra 1.

Lunch sponsored by CBEC Eco Engineering

1:00 – 2:00 p.m.

Session 4. CWEMF Awards Ceremony

Moderator: Jesse Jankowski (CWEMF/SWRCB)

Location: Sierra 1

Presentation of the Hugo B. Fischer, Career Achievement and Distinguished Life Membership awards.

2:05 – 3:15 p.m.

Session 5. Pop-up Talks

Moderators: Stacy Tanaka (Watercourse Engineering)

Location: Sierra 1

Five-minute overviews summarizing modeling work using a maximum of five PowerPoint slides per speaker.

3:30 – 5:15 p.m.

Session 6. Colorado River Basin Modeling

Moderator: Rich Juricich (Woodard & Curran)

Location: Sierra 1

1. The Role of Modeling in Planning and Management of the Colorado River for California in a Changing World – David Rheinheimer and Angela Rashid (Colorado River Board of California)
2. Drought Mitigation Planning in the Colorado River Basin in Utah – Betsy Morgan (Colorado River Authority of Utah)
3. The Use of Models by the Central Arizona Project to Support Water Supply Planning in an Uncertain Future – Nolie Templeton (Central Arizona Water Conservation District)
4. Overview of Colorado River System Models and the Update of the Operating Guidelines for Lakes Powell and Mead – Harrison Zeff (USBR)

Session 7. CVP Water Temperature Platform, Chapter 3

Moderator: Yung-Hsin Sun (Sunzi)

Location: Folsom/Natoma

1. Session Introduction and Recap – Yung-Hsin Sun (Sunzi Consulting LLC)
2. What Have We Done – Mike Deas (Watercourse Engineering), John DeGeorge (RMA), Randi Field (USBR)
3. The End is the Beginning (Panel Discussion) – Thomas Patton, Michel Pacheco, Randi Field, David Mooney, and Levi Johnson (USBR)

5:30 – 8:00 p.m.

Session 8. Social

Location: Sierra 1

Social sponsored by Jacobs, MBK, RMA, S.S. Papadopoulos & Associates, and Tetra Tech

PLEASE RETURN YOUR NAME BADGE TO THE REGISTRATION TABLE IF YOU WILL NOT BE COMING BACK TO THE ANNUAL MEETING.

AGENDA

Tuesday, September 24

7:30 – 8:00 a.m. – Registration in Sierra Hallway

Refreshments sponsored by LimnoTech

8:00 – 9:45 a.m.

Session 9. Delta Salinity Management in Drought: Surrogate Development under Drought, Landscape Change and Sea Level Rise

Moderator: Eli Ateljevich (DWR)

Location: Sierra 1

1. Increasing Transparency and Flexibility of the CalSIM Delta Salinity Surrogate Process – Eli Ateljevich (DWR)
2. Representative Hydrology and Salinity Conditions for Machine Learning – Lily Tomkovic (DWR)
3. ANN Architecture, memorization and overfit – Ryan Ripken (RMA)
4. Restoration designs and early results – Stacie Grinbergs (RMA)

Session 10. Improved Groundwater-Surface Water and Water Allocation Models and Data to Support Water Management in the Scott River and Shasta River Watersheds

Moderator: Shahab Araghinejad (SWRCB)

Location: Folsom/Natoma

1. Scott Valley Airborne Electromagnetic Data Interpretation and Assimilation into a Groundwater-Surface Water Model – Leland Scantlebury (UC Davis)
2. Updated Precipitation-Runoff Modeling System in Scott Valley – Katrina Arredondo (Larry Walker Associates)
3. Shasta Watershed Groundwater Model (SWGGM): Challenges and Updates Enlightened by New Datasets – Laura Foglia (Larry Walker Associates and the University of California, Davis) and Jose Tomas Diaz Casanueva (Larry Walker Associates)
4. Organizing Adjudicated Water Right Decree Data in the Scott River – Doug Chalmers (Stockholm Environment Institute)

10:00 – 11:45 a.m.

Session 11. Consultation on the Coordinated Long-Term Operation of the CVP and SWP

Moderator: Amanda Becker (USBR)

Location: Sierra 1

1. LTO Background and Updating the LTO No Action Alternative – Ryan Lucas (USBR), Derya Sumer (USBR), Thomas Fitzugh (Stantec), Chad Whittington (Jacobs)
2. Modified OMR – Cameron Koizumi (USBR)
3. Model Development for State Water Project Long Term Operations – Yiwei Cheng & Nicole Osorio (DWR)
4. LTO Alternative 3 – Chad Whittington (Jacobs)
5. Simulating the Voluntary Agreements – Thomas FitzHugh (Stantec)

Session 12. History of Modeling Tools

Moderator: Vivek Bedekar (SSP&A)

Location: Folsom/Natoma

1. The Story of IWFEM: A Journey Through Time – Saquib Najmus (Woodard & Curran)
2. The History of MODFLOW – Richard Winston (USGS)
3. The Present and Future Role of the Loading Simulation Program C++ (LSPC) in Watershed Modeling and Water Management – John Riverson (Paradigm Environmental)
4. The History of Solute Transport Modeling Codes – Vivek Bedekar (S.S. Papadopoulos and Associates, Inc.)

11:45 a.m. – 12:30 p.m. – Lunch

Pick up a box lunch and then join us for the keynote address in Sierra 1.

Lunch sponsored by

12:30 – 1:10 p.m.

Session 13. Keynote Address: Dr. Jay Lund (UC Davis)

Moderator: Jesse Jankowski (CWEMF/SWRCB)

Location: Sierra 1

1:15 – 3:00 p.m.

Session 14. CalSim3 Changelog (Live)

Moderator: Zachary Roy (DWR)

Location: Sierra 1

1. 2023 Delivery Capability Report Updates – Nicole Osorio & Yiwei Cheng (DWR)
2. CalSim Allocation Module (CAM) – Thomas FitzHugh (Stantec)
3. CalSim3 Artificial Neural Network Architecture Updates – Hamed Zamanisabzi, Malinda Wimalarante & Yiwei Cheng (DWR)
4. Pseudo-Hydrologic Forecast for Climate Change and Other Alternative Hydrology – Kunzuan Wang (USBR) & Mohammad Hasan (DWR)

Session 15. Water Quality, Emerging Contaminants and PFAS Modeling

Moderator: Reza Namvar (Woodard & Curran)

Location: Folsom/Natoma

1. Comparison of PFAS Fate and Transport Modeling Tools and Data Needs for Site-scale and Regional-scale Models – Raghu Suribhatla, Jacob Chu, and Haley Aldrich (Woodard & Curran)
2. Development of a conceptual model for simulation of PFAS distribution and movement in the San Jacinto Groundwater Basin – Reza Namvar (Woodard & Curran)
3. Prediction of 35 Target PFAS in California Groundwater Using Multilabel Semi-Supervised Machine Learning – Jialin Dong (University of California, Irvine)
4. De-Risking Groundwater Investments in the Age of PFAS – Dan Haddock (Intera)

3:15 – 5:00 p.m.

Session 16. Hydrology/Climate Change

Moderator: Ryan Lucas (USBR)

Location: Sierra 1

1. Risk-Informed Climate Change Development – Andrew Schwarz (DWR)
2. USBR 2022MED Hydrology Development: Detrending Methodology – Drew Loney (USBR) & Tapash Das (Jacobs)
3. A New Normal: Adjusted Historical Hydrology – Richard Chen (DWR)
4. A New Normal: Climate Change Adaptation – Andrew Schwarz (DWR)
5. Climate Change Development: BOR and DWR Approaches – Drew Loney (USBR)

Session 17. Advancing Aquifer Recharge Modeling: Integrating Process-Based Models for Enhanced Representation of Water Quantity and Quality

Moderator: Menberu Meles (USDA)

Location: Folsom/Natoma

1. A new externally coupled physically-based multi-model framework for simulating subsurface and overland flow hydrological processes – ATM Sakiur Rahman (UC Riverside)
2. Investigating Managed Aquifer Recharge Impacts on Redox Potential: A HYDRUS 2D Modeling Approach. Alessandra Bonazzi (UC Davis)
3. CalSim (WRIMS): CoSANA (IWFM) Integration for Sacramento Regional Water Bank Modeling – Puneet Khatavkar (Stantec)
4. Distributed Recharge, Groundwater Flow Modeling, and Scenario Analysis in an Over-Exploited Aquifer: Coupling HYDRUS-1D and 3D Groundwater Flow Modeling in the Central Valley, California – Menberu Meles (USDA)

5:00 – 7:00 p.m.

Session 18. Poster Session & Social

Location: Sierra 1

Posters will be set up by 10:00 a.m. and available for viewing all day. Presenters will be available from 5:00 p.m. to 7:00 p.m.

Social sponsored by HDR, ICF, Stantec, Watercourse Engineering, and Woodard & Curran

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AGENDA

Wednesday, September 25

7:30 – 8:00 a.m. – Registration in Sierra Hallway

Refreshments sponsored by Pacific Agroecology

8:00 – 9:45 a.m.

Session 19. Reclamation specific LTO Analyses

Moderator: Drew Allan Loney (USBR)

Location: Sierra 1

1. SCHISM use in the LTO – Ben Abban (USBR)
2. PTM and ECO-PTM simulations for LTO – Steve Micko (Jacobs) & Victor Huang (USBR)
3. Trinity LTO Operations and Temperature Modeling – Kunxuan Wang, Drew Allan Loney, Mechele Pacheco (USBR)
4. Delta Export Zone of Influence – Chad Whittington (Jacobs)

Session 20. California Aqueduct Subsidence Program (CASP) Modeling: Panel Discussion

Moderator: Jeff Weaver (HDR)

Location: Folsom/Natoma

1. CASP Hydraulic Modeling – Charles Lintz (HDR)
2. CASP Water Supply Modeling – Rafael Herrera (Stantec)
3. CASP Power Use Modeling – Megan Lionberger (HDR)
4. CASP Flood Hazards Modeling – Chakri Malakpet (HDR)

10:00 – 11:45 a.m.

Session 21. Shasta Operations

Moderator: Ryan Lucas (USBR)

Location: Sierra 1

1. Shasta Action in CalSim – Nancy Parker (USBR)
2. An Optimization Approach for Shasta Temperature Management – Drew Allan Loney (USBR)
3. A Comparison of Shasta Temperature Management Processes – Drew Allan Loney (USBR)
4. Impacts of TUCPs – Amanda Becker (USBR)

Session 22. Innovative Approaches to Water Management & Ecosystem Sustainability in the California Central Valley & Delta

Moderator: Nicole Osorio (DWR)

Location: Folsom/Natoma

1. Using a Simplified Reservoir Simulator for Exploring Climate Change Adaptation in California's Central Valley – John Rath (Tetra Tech)
2. Estimating Freshwater Inflow to San Francisco Estuary During the First Six Decades Following the California Gold Rush: WY 1851 – 1911 Reconstruction Based on Legacy Hydrologic Data – Paul Hutton (Tetra Tech)
3. Forecasting Central Valley Runoff and water Availability Using NMME 7-Month Forecasts – Chuck Young (SEI)
4. Quantifying the Contribution of Marsh Plants and Aquatic Vegetation to the Detrital Food Web in the California Delta – Ed Gross (RMA)
5. Little Egbert Tract Multi-Benefit Project Hydrodynamic Modeling – Anna Hamilton (CBEC)

11:45 a.m. – 1:15 p.m. - Lunch

Lunch at area restaurants

1:15 – 3:00 p.m.

Session 23. Integrated Modeling for the Central Valley Project Improvement Act (CVPIA) Structured Decision Making (SDM) Process

Moderator: Mark Tompkins (Flow West) & Rod Wittler (USBR)

Location: Sierra 1

1. An overview of SDM for the Bay Delta Office and the Service regarding CVPIA Authorities - Management & Science – Rod Wittler (USBR) & Mike Urkov (Urkov Group)
2. The Fall Run Chinook Salmon Life Cycle Decision Support Model (DSM) – Rod Wittler (USBR) & Mike Urkov (Urkov Group)
3. A Streamlined Approach to Modeling Salmon Habitat in The Central Valley – Mark Tompkins & Emanuel Rodriguez (FlowWest)
4. Modeling Chinook Salmon Spawning Habitat Decay – Emanuel Rodriguez (FlowWest) & Rod Wittler (USBR)
5. Updating Sacramento River Hydraulic and Habitat Modeling Data – Jenna Paul & Rod Whittler (USBR)

Session 24. Groundwater Grab Bag

Moderator: Abdul Khan (DWR)

Location: Folsom/Natoma

1. Groundwater extraction and agricultural demands: Insights from Kern County’s Semitropic Water Storage District – Azad Heidari (GEI)
2. Hydroeconomic Modeling of Perennial Crop Dynamics and GSP Demand Management Under SGMA – Duncan MacEwan (ERA Economics)
3. Modeling Multi-benefit Groundwater Smart Markets: Open Water Trade – Brooks Ronspies (ERA Economics)
4. Remote Sensing Estimates of Groundwater Extraction using the GEEEO Process – Jacob Winslow (Davids Engineering)
5. The Pendulum Swings: California’s Attempts to Find a Balance Between Fish and Feathers and Folks and Farms Through the Sustainable Groundwater Management Act (SGMA) – Brandon Ertis (Davids Engineering)

3:15 – 5:00 p.m.

Session 25. The Collaboratory Starts Now: Panel Discussion

Moderator: Lisamarie Windham-Myers (Delta Stewardship Council)

Location: Sierra 1

1. An Overview of Collaborative Approaches for Integrated Modeling: What We have Learned – Josue Medellin-Azuara (UC Merced)
2. Delta Science Program Collaboratory Vision 2025: Strategic Advances to Launch Collaborative Science – Lisamarie Windham-Myers (Delta Stewardship Council)
3. ‘Use case’ approach for the Collaboratory: How did we get here? – Ben Geske (Delta Stewardship Council)
4. Panel Discussion with Lighting Talks
 - a. Envisioning Just Transitions in Salinity Management through Collaborative Modeling and Open Science - Laurel Larsen (UC Berkeley)
 - b. Opportunities and Challenges in Predicting Harmful Algal Blooms (HABs) - Rusty Holleman (RMA)
 - c. Hydrologic Remote Sensing for Ecosystem Models - Erin Hestir (UC Merced)
 - d. Water Management and Salmon - Eric Danner (NOAA)
 - e. Developing Food Web Models for Benefits of Tidal Wetland Restoration - Rosemary Hartman (DWR) & Denise Colombano (Delta Stewardship Council)
 - f. The Collaboration behind CASCaDE: Computational Assessments of Scenarios of Change in the Delta Ecosystem - Lisa Lucas (USGS)
 - g. Q&A – App-based real-time online survey & in-person Q&A (additional panel members include Derya Sumer (USBR) & Eli Ateljevich (DWR))

Session 26. Reclamation Grab Bag

Moderator: Maribeth Kniffin (USBR)

Location: Folsom/Natoma

1. Improvements to CalSim Reference Evapotranspiration – Lauren Thatch (USBR)
2. Updates to Forecast-Informed Reservoir Operations (FIRO) at Folsom and Klamath Dams – Drew Allan Loney (USBR)
3. Evaluating the Role of Leakage Efficiency and Release Elevations on Release Water Temperatures at Folsom Dam – Mussie Beyene & Drew Allan Loney (USBR)
4. Allocation Iteration Tool – Dan Easton (MBK) & Sam Waers (USBR)

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