SUMMARY OF SESSIONS

Monday, April 20

Time	Session	Moderator	Room
8:00–8:30	Registration		Sierra Hallway
8:30–10:15	1. Reclamation Model Development (Part 1)	Lauren Thatch	Sierra 1
	2. Modernization of the California Water Plan	Paul Shipman	Sierra 2
	3. Multi-Dimensional Modeling of Hydrodynamics and Transport Processes the San Francisco Estuary	Edward Gross	Sutter
10:15–10:30	Break		
10:30–12:15	4. CalSim Updates and Applications	Jonathan Byers	Sierra 1
	5. Lessons Learned from the DWR Watershed Resilience Pilot Program	Eric Tsai	Sierra 2
	6. Building Integrated Forecasting, Operations, and Planning Frameworks for Water and Power Resource Management	Eric Mork	Sutter
12:15–1:00	Lunch		
1:00–2:00	CWEMF Awards Ceremony		
2:00–2:05	Break		
2:05–3:15	Pop-up Talks		
3:15–3:30	Break		
3:30–5:15	7. Updates in CalSim Development	Zachary Roy	Sierra 1
	8. News from the Klamath Basin	Yung-Hsin Sun	Sierra 2
	9. Diverse California-wide Modeling Studies	Harrison Zeff	Sutter
5:30–8:00	Business Meeting and Social		

SUMMARY OF SESSIONS

Tuesday, April 21

Time	Session	Moderator	Room
7:30–8:00	Registration		Sierra Hallway
8:00–9:45	10. An Update on the COEQWAL Project: Understanding and Communicating Alternative California Water Futures Across Multiple Domains	James Gilbert	Sierra 1
	11. Incorporation of FIRO-MAR into the 2027 Central Valley Flood Protection Plan Update	Francisco Flores-López	Sierra 2
	12. Decision-Support Modeling for Managed Recharge and Recovery Projects	Hai Huang; Mesut Cayar	Sutter
9:45–10:00	Break		
10:00–11:45	13. Reclamation Model Development (Part 2)	Cameron Koizumi	Sierra 1
	14. DWR's Basin Characterization Program: From Data Collection and Digitization to Maps, Models, and Analysis	Mesut Cayar	Sierra 2
	15. Evaluating Delta Operations and Objectives Using Historical Daily Data	Rich Satkowski	Sutter
11:45–12:30	Lunch		
12:30–1:10	Keynote Address		
1:10–1:15	Break		
1:15–3:00	16. Updates in CalSim Hydrology	Ryan Lucas	Sierra 1
	17. Collaborative Modeling in the Delta: Exploring Feasibility Using Three Use Cases	Michelle Stern	Sierra 2
	18. Advancing Subsidence Modeling: Exploring Critical Head, Data Gaps, Compaction Mechanics, and Predictive Uncertainty	John Ellis; Leila Saberi	Sutter
3:00–3:15	Break		
3:15–5:00	19. Integrated Modeling and Innovative Decision Support Systems for Smart Water Resources Management	Nigel Chen	Sierra 1
	20. MF-OWHM Session at 2026 CWEMF Conference	Scott Boyce; Steffen Mehl; Randall Hanson	Sierra 2
	21. Climate Change and Extreme Rainfall and Flooding Events	Yuchuan Lai	Sutter
5:00–7:00	Poster Session		

SUMMARY OF SESSIONS

Wednesday, April 22

Time	Session	Moderator	Room
7:30–8:00	Registration		Sierra Hallway
8:00–9:45	22. Reclamation Developments in Secondary Modeling	Drew Loney	Sierra 1
	23. Machine Learning Applications in Water Resources (Part 1)	Tariq Kadir	Sierra 2
	24. Water Accounting: The Importance (and challenge) of Measuring Water in the Field to Ground-truth Our Models	Brandon Ertis	Sutter
9:45–10:00	Break		
10:00–11:45	25. Developments in 2026 on Historical Hydrology and Calibration of the CalSim Historical Model	James Polsinelli	Sierra 1
	26. Machine Learning Applications in Water Resources (Part 2)	Kevin He	Sierra 2
	27. Strengthening demand and process representation in WEAP: advanced data integration for statewide planning	Marina Mautner	Sutter
11:45–1:15	Lunch		
1:15–3:00	28. Updates to DWR's C2VSim Fine Grid Model Development	Craig Altare	Sierra 1
	29. Recent updates of the DWR Delta Emergency Response Tool – Automation, Optimization, and Machine Learning	John DeGeorge; Khalida Fazel	Sierra 2
	30. Recent Advances in SacWAM and SJWAM	Charles Young	Sutter
3:00–3:15	Break		
3:15–5:00	31. Sites Reservoir Modeling Updates	Reed Thayer	Sierra 1
	32. Developments in Open Water Data	Christina McCready; Paul Shipman	Sierra 2

AGENDA

Monday, April 20

8:00–8:30 am – Registration in Sierra Hallway

8:30–10:15 am

Session 1. Reclamation Model Development (Part 1)

Moderator: Lauren Thatch (USBR, lthatch@usbr.gov)
Location: Sierra 1

1. Water Temperature Model Platform Planning Model Development – Ryan Lucas (USBR); Randi Field (USBR)

2. Real-Time CVP Delta Operations and Fisheries Assessments – Adam Witt (Stantec); Levi Brekke (Stantec)

3. CalSimHydroV2 OSTRICH Calibration – Lauren Thatch (USBR)

4. CalSimPy: Making the CalSim3 Data-Handling Process Easier – James Gilbert (NOAA, UCSC)

5. Rollout and Community Engagement of the Central Valley Project Water Temperature Modeling Platform – Yung-Hsin Sun (Sunzi Consulting)

Session 2. Modernization of the California Water Plan

Moderator: Paul Shipman (DWR, paul.shipman@water.ca.gov)
Location: Sierra 2

1. Modernization of the California Water Plan through implementation of new legislation (SB 659 and SB 72) – Jose Alarcon; Paul Massera; Paul Shipman (DWR)

2. Modernization of approach to developing resource management strategies (RMS) and update to RMS contents – Megan Fidell (DWR)

3. Modernizing data tools for public access though the Watershed Hub – Lucian Filler; Eric Tsai (DWR); Melissa Stine (Woodard & Curran)

4. Modernizing metrics and data for future scenarios – California Environmental Flows Framework and comparison of historical vs projected future megadrought occurrence – Caileen Yu; Paul Shipman (DWR)

5. Modernized population allocation for urban water use planning: automated population estimation

across different boundaries using parcels and building footprints – Melika Mani; James Common (DWR)

Session 3. Multi-Dimensional Modeling of Hydrodynamics and Transport Processes the San Francisco Estuary

Moderator: Edward Gross (GEI, ed@rmanet.com)
Location: Sutter

1. Using Inflow Fingerprinting to Predict Dissolved Organic Carbon Distribution and infer Contributions from Marsh Plants and Aquatic Vegetation in the Sacramento-San Joaquin Delta – Edward Gross (GEI)

2. Hydrodynamic Modeling of Fish Passage Structures, the Trilogy – Rusty Holleman (RMA)

3. Estimating Zooplankton Transport from Suisun Marsh Duck Pond Effluent using a Multi-Model Approach – Scott Burdick-Yahya (RMA/GEI)

4. CO2 sequestration well blowout impacts on surface water quality in the Sacramento-San Joaquin Delta – Benjamin T Saenz (GEI)

5. An Open, Reproducible 3D Community Model for San Francisco Bay–Delta Environmental Hydrodynamics – Stendert Laan (Deltares); Mick van der Wegen (Deltares); Kees Nederhoff (Deltares)

10:30–12:15 am

Session 4. CalSim Updates and Applications

Moderator: Jonathan Byers (DWR, jonathan.byers@water.ca.gov)
Location: Sierra 1

1. 2025 Delivery Capability Report Updates – Jonathan Byers (DWR)

2. LTO Action 5 – Cameron Koizumi (USBR)

3. SWP Adaptation Strategy Results – Andrew Schwarz (DWR)

4. Integrated Analysis of SWP Adaptation Strategy and San Joaquin Basin Watershed Studies – Eric Tsai (DWR)

5. A New View of Water — Value of Water from a Source Watershed: The Upper American River Watershed Case Study – Yung-Hsin Sun (Sunzi Consulting); Jared Soares (Batker Consulting)

Session 5. Lessons Learned from the DWR Watershed Resilience Pilot Program

Moderator: Eric Tsai (DWR, eric.tsai@water.ca.gov)
Location: Sierra 2

1. Watershed Resilience Pilot Program: Statewide Context and Program Overview – Eric Tsai (DWR)

2. American Watershed Pilot: Regional Climate Resilience Planning – Regional Water Authority Representative

3. Calaveras Watershed Pilot: Climate Vulnerability and Adaptation Strategies – Stockton East Water District Representative

4. Russian Watershed Pilot: Integrating Climate Resilience at the Watershed Scale – Sonoma Water Agency Representative

5. Pajaro Watershed Pilot: Multi-Sector Climate Risk Assessment – Pajaro Valley Water Management Agency Representative

6. Ventura Watershed Pilot: Building Watershed Resilience through Collaboration – Ventura County Resource Conservation District Representative

Session 6. Building Integrated Forecasting, Operations, and Planning Frameworks for Water and Power Resource Management

Moderator: Eric Mork (Western Area Power Administration, mork@wapa.gov)
Location: Sutter

1. Russian River Forecast Informed Reservoir Operations – Planning to Implementation – Chris Delaney (Sonoma Water)

2. The Story of TVA's River and Reservoir Management – James Everett (Tennessee Valley Authority)

3. An Overview of the California-Nevada River Forecast Center and the Role They Play in Forecast Informed Reservoir Operations – Brett Whitin (California Nevada River Forecast Center)

4. Keeping the lights on with the Colorado River Storage Project – Matija Pavicevic (ANL)

5. Snow Surveys and Water Supply Forecasting: Performance, Updates, and Visualizations – Jacob Kollen (DWR)

12:15–1:00 pm

Lunch

1:00–2:00 pm

CWEMF Awards Ceremony

2:05–3:15 pm

Pop-up Talks

3:30–5:15 pm

Session 7. Updates in CalSim Development

Moderator: Zachary Roy (DWR, zachary.roy@water.ca.gov)
Location: Sierra 1

1. CalSim Solvers Benchmarking – Jon Herman (UC Davis)
2. CalSim Cycle Structure – Thomas FitzHugh (Stantec)
3. CVP California Allocation Module Development – Cameron Koizumi (USBR)
4. WRESL+ Compiler Updates – Hamed Zamanisabzi (DWR)

Session 8. News from the Klamath Basin

Moderator: Yung-Hsin Sun (Sunzi Consulting, sun.yunghsin@sunziconsulting.com)
Location: Sierra 2

1. What Would the River Do: The Question behind the Klamath River Basin Revised Natural Flow Study – Caroline Ubing (USBR)
2. Disappearing Act of Water: Simulated changes in open water evaporation across Upper Klamath Basin as a result of agricultural development and reservoir impoundment – Kristin Mikkelson (USBR)
3. The Situation was Fluid (Pun Intended): Modeling exchange flows between the Klamath River and pre-development Lower Klamath Lake – Colin Byrne (USBR)
4. Culprit, Scapegoat, or Something in Between: Landcover and forest density changes across Upper Klamath Basin since the late 1800s: does it impact groundwater recharge as much as we think? – Kristin Mikkelson (USBR)
5. Managing the Unknown Unknown: The Klamath Project operations in the post-dam removal era – Brock Phillips (USBR); Viktor Stromberg (USBR)

6. Integrated Surface-Water and Groundwater Modeling of the Shasta River Watershed – Vivek Bedekar (SSP&A)

Session 9. Diverse California-wide Modeling Studies

Moderator: Harrison Zeff (University of North Carolina at Chapel Hill, zeff@live.unc.edu)
Location: Sutter

1. Managing water market-based financial risks with California Water Index futures contracts – Dan Li (University of North Carolina at Chapel Hill)

2. Exploring opportunities for energy storage within the Central Valley Project – Quentin Ploussard (Argonne National Laboratory)

3. Assessing financial risk due to hydrometeorological variability: A case study using WAPA's hydropower customers – Ahmed Hamed (University of North Carolina at Chapel Hill)

4. SGMA Implementation through Modelling and Economics – Tori Laird; Duncan MacEwan (ERA Economics)

5. Statewide Economic Modelling at the Groundwater Sustainability Agency (GSA) Resolution – Brooks Ronspies; Josh Virene (ERA Economics)

5:30–8:00 pm

Business Meeting and Social

AGENDA

Tuesday, April 21

7:30–8:00 am – Registration in Sierra Hallway

8:00–9:45 am

Session 10. An Update on the COEQWAL Project: Understanding and Communicating Alternative California Water Futures Across Multiple Domains

Moderator: James Gilbert (UC Santa Cruz, james.gilbert@noaa.gov)
Location: Sierra 1

1. COEQWAL: A collaboratory for water equity and resilience – Ted Grantham (UC Berkeley)
2. Future Hydroclimates from Physical and Statistical Models – Morgan Levy (UC San Diego)
3. Exploring an Expanded Scope of Operational Alternatives for California – James Gilbert (UC Santa Cruz)
4. Interpreting scenario outcomes: metrics, tiered thresholds, and trade-offs – Wietske Medema (UC Berkeley)
5. Building a FAIR Collaboratory for Equity in Water Allocation – Nancy Thomas (UC Berkeley)

Session 11. Incorporation of FIRO-MAR into the 2027 Central Valley Flood Protection Plan Update

Moderator: Francisco Flores-López (DWR, Francisco.FloresLopez@water.ca.gov)
Location: Sierra 2

1. Theory and Background for Generation of Synthetic Ensemble Forecasts – Zach Brodeur (CW3E)
2. Application of Synthetic Ensemble Forecasts to Scaled Central Valley Hydrology Study Inflow Events – Wyatt Arnold (DWR)
3. Development and Application of FIRO-MAR Reservoir Operations in HEC-ResSim – Aleksander Vdovichenko (DWR)
4. Reducing Flood Risks through FIRO-MAR in the San Joaquin Basin – David Arrate (DWR)
5. Managing Forecast Uncertainty in Operational Decisions on the Russian River – Michael Konieczki

(HDR)

Session 12. Decision-Support Modeling for Managed Recharge and Recovery Projects

Moderators: Hai Huang (Tetra Tech, hai.huang@tetratech.com);
Mesut Cayar (Woodard & Curran, mcayar@woodardcurran.com)
Location: Sutter

1. Grid-Based Analysis of Recharge Benefits for Stream Depletion Mitigation in Yuba Subbasins – Sercan Ceyhan (Woodard & Curran); Reuben Dandurand (Woodard & Curran)

2. Modeling ASR with a Focus on the Regulator – Neil Deeds (INTRA); Abhishek Singh (INTRA)

3. How fast does recharge reach groundwater? Transit times and preferential flow in deep vadose zones – Helen E. Dahlke (UC Davis)

4. Introduction to McMullin Aquaterra Water Bank Project and Modeling of Water Bank Operations and Performance Under Climate Uncertainty – Jie Xu (Tetra Tech)

5. MercedMAR – Automation and visualization for managed aquifer recharge scenarios in the Merced subbasin – Andres Diaz (Woodard & Curran); Melissa Stine

10:00–11:45 am

Session 13. Reclamation Model Development (Part 2)

Moderator: Cameron Koizumi (USBR, ckoizumi@usbr.gov)
Location: Sierra 1

1. To Kill a Spreadsheet – Streamlining CalSim Input Development and Extension – Frankie Nuffer-Rodriguez (USBR)

2. CalSim Explorer – Nancy Parker (USBR); Kunxuan Wang (USBR)

3. CalSim3 Dynamic Fallowing Framework – Bridget Childs (Stantec)

4. Klamath Modeling using WRIMs – Nancy Parker (USBR)

5. Trinity LTO Operations Modeling – Kunxuan Wang (USBR)

Session 14. DWR's Basin Characterization Program: From Data Collection and Digitization to Maps, Models, and Analysis

Moderator: Mesut Cayar (Woodard & Curran, mcayar@woodardcurran.com)
Location: Sierra 2

1. DWR's Basin Characterization Program – Update 2026 – Katherine Dlubac (DWR)

2. Digitization of well lithology and geophysical logs for the DWR Statewide AEM and Basin Characterization Program – Julie Chambon (Ramboll)

3. BCTools – DWR's Open-Source Toolset for Rapid, Data-Driven Basin Characterization – Jack Baer (Woodard & Curran); Vivek Bedekar (SSP&A)

4. Large-Scale Sedimentary Texture Modeling with AEM Data: Insights from the Central Valley – Jack Baer (Woodard & Curran); Michael Ou (SSP&A)

5. Aquifer Recharge Potential in Practice: Lessons from Western San Joaquin and Sacramento Valley – Nicole Jacobsen (Woodard & Curran)

Session 15. Evaluating Delta Operations and Objectives Using Historical Daily Data

Moderator: Rich Satkowski (SWRCB, retired, rsatkowski@aol.com)
Location: Sutter

1. Introducing Delta 3D – Russ Brown (ICF, Retired)

2. Evaluating the Effectiveness of the Head of Old River Barrier on SJR Chinook Survival – Anne Huber (ICF)

3. Evaluating Alternative Shasta Operations for Keswick Release Temperatures and Winter-run Chinook Egg Survival – Mike Deas (Watercourse Engineering)

4. Evaluating the Potential Fish Benefits from the CALFED Environmental Water Account – Dave Fullerton (MWD Sacramento, Retired)

5. Monthly Life-Cycle Accounting Model for Winter-Run Chinook – Rich Satkowski (SWRCB, retired); Russ Brown

11:45–12:30 pm

Lunch

12:30–1:10 pm

Keynote Address

1:15–3:00 pm

Session 16. Updates in CalSim Hydrology

Moderator: Ryan Lucas (USBR, rlucas@usbr.gov)
Location: Sierra 1

1. C2VSIM 2025 Coarse Grid Calibration – Steven Jepsen (DWR); Ali Ghaseminejad (DWR)

2. Crop ET Updates and comparisons with OpenET – Lauren Thatch (USBR)

3. Climate Change Analysis for California Central Valley Project Long Term Planning – Tapash Das (Jacobs); Drew Loney (USBR)

4. Development of CSHydroV2 Pre- and Post-Processor Tools – Ruian Dong (DWR)

5. Updates to CalSim3 Existing Conditions Land Use Dataset – Mina Shahed Behrouz (Stantec)

Session 17. Collaborative modeling in the Delta: exploring feasibility using three use cases

Moderator: Michelle Stern (Delta Stewardship Council, Michelle.Stern@deltacouncil.ca.gov)
Location: Sierra 2

1. Solving complex management questions with the help of a Delta Modeling Collaboratory – Lisamarie Windham-Myers (USGS and Delta Stewardship Council)

2. Developing modeling applications to support cyanobacterial harmful algal bloom management in the Sacramento-San Joaquin Delta, California – Keith Bouma-Gregson (USGS); Dave Senn (SFEI)

3. Modeling salinity in the Sacramento-San Joaquin Delta, California with the help of a Delta Modeling Collaboratory – Josue Medellin-Azuara (UC Merced)

4. Managing tidal wetlands to optimize food webs in the Sacramento-San Joaquin Delta, California – Matt Young (USGS)

5. Laying the foundation for a Delta Modeling Collaboratory: a project-based collaborative modeling approach to complex management challenges – Michelle Stern (Delta Stewardship Council)

Session 18. Advancing Subsidence Modeling: Exploring Critical Head, Data Gaps, Compaction Mechanics, and Predictive Uncertainty

Moderators: John Ellis (INTERA, jellis@intera.com);
Leila Saberi (INTERA, LSaberi@intera.com)
Location: Sutter

1. Critical Heads, Critical Decisions: Subsidence and Critical Head Trends in the Central Valley. – John Ellis (INTERA); Leila Saberi (INTERA)

2. Short Records, Longer Consequences: How Data Gaps Shape Subsidence Forecasts. – Leila Saberi (INTERA); John Ellis (INTERA)

3. The Subsurface Time Machine: Modeling Compaction Dynamics. – Joseph Hughes (INTERA)

4. Why Matching the Past Doesn't Tell the Future: Implications of Model Non-Uniqueness – Jeremy White (INTERA)

5. Decomposition of Inelastic and Elastic Components of Total Subsidence for Model Calibration Evaluation – Raghavendra Suribhatla (Haley & Aldrich)

3:15–5:00 pm

Session 19. Integrated Modeling and Innovative Decision Support Systems for Smart Water Resources Management

Moderator: Nigel Chen (EKI, nchen@ekiconsult.com)
Location: Sierra 1

1. Opportunities and Challenges in Using Multiple Models for Regional Groundwater Management in the Salinas Valley – Stephen Hundt (Montgomery & Associates, M&A); Hanni Blair (M&A)

2. Integrated Hydrogeologic Investigations, Groundwater Modeling and Decision Support Tool Development in the Livermore Valley Basin – Aaron Lewis (EKI); Nathan Cutler (EKI); Anona Dutton (EKI)

3. Machine Learning Guided Optimization (MLGO!) for Sustainable Groundwater Management and Decision Support – Patick Wickham (M&A)

4. Interactive Scenario Planning and Consensus-Building Decision Support Tool for Water Resources Planning – Ayman Alafifi (EKI); Dawn Flores (EKI)

5. Advancing adaptive decision-making through an Environmental Water Manager (EWM) role to enhance the ecological resilience of Western U.S. river systems – Zach Brodeur (UCSD); Sai-Veena Sunkara; Gopal Penny; Maurice Hall; Patrick Reed

6. MODFLOW-IDC (MF-IDC) A New Integrated Hydrologic Modeling Tool from California for the Rest of

the World – Adrien Camille (Woodard & Curran); Ahmed Ali

Session 20. MF-OWHM Session at 2026 CWEMF Conference

Moderator: Scott Boyce (UC Davis);
Steffen Mehl;
Randall Hanson (One-Water Hydrologic, randythanson@gmail.com)
Location: Sierra 2

1. New Conjunctive Water Management books and Model Exercises – Randall Hanson (One-Water Hydrologic)

2. New MF-OWHM features – Scott Boyce (UC Davis)

3. Modeling Future Groundwater Depletion to Evaluate Sustainability Goals set by SGMA in the Critically Overdrafted Basins of the Central Valley, California, USA (2020 – 2070) – Logan C. Platt; Matthew Weingarten; Jonathan A. Traum; Claudia C. Faunt; Scott Boyce (UC Davis)

4. Simulating Future Flow and Salt Transport in the Delta-Mendota Subbasin – Barbara Dalgish; Mohamed Nassar (LSCE)

5. Toward solute transport modeling framework through an Integrated Hydrogeological Model – Mohamed Nassar, Steffen Mehl, Scott Boyce (UC Davis); Randall Hanson (One-Water Hydrologic)

6. Evaluating seawater intrusion under climate change model updates and uncertainty analysis for Pajaro Valley, California – Marrisa Earl (INTERA)

7. A River Runs Through It: Subsurface Connectivity and Exchanges Between the Salinas River and Groundwater Subbasins – Wesley Hensen (EKI &USGS); Randall Hanson (One-Water Hydrologic), Scott Boyce (UC Davis); Joseph Hevesi; Elizabeth Jachens

Session 21. Climate Change and Extreme Rainfall and Flooding Events

Moderator: Yuchuan Lai (Tetra Tech, yuchuan.lai@tetratech.com)
Location: Sutter

1. Analyzing climate modeling in the Central Valley: Nexus of statistics and data analysis tools – Chakri Malakpet; Asphota Wasti (HDR)

2. A stochastic watershed modeling framework for rainfall-runoff simulations – Chakri Malakpet; William Sicke (HDR)

3. Hydrologic and hydraulic methods for updates to the delineation of the CVFPB Designated Floodways in California – Ernesto Trujillo-Gomez; Renato Espinoza Torres (HDR)

4. Physics-based snowpack modeling for Probable Maximum Flood studies – Ernesto Trujillo-Gomez (HDR)

5. Probabilistic Extreme Rainfall Projections under Climate Change: Applying Extreme Value Analysis with A Climate-Model-Informed Bayesian Approach – Yuchuan Lai (Tetra Tech)

6. Effects of Climate Change on City of San Diego Public Facilities and Operations – Syed Azhar Ali; Tapash Das (Jacobs)

5:00–7:00 pm

Poster Session

AGENDA

Wednesday, April 22

7:30–8:00 am – Registration in Sierra Hallway

8:00–9:45 am

Session 22. Reclamation Developments in Secondary Modeling

Moderator: Drew Loney (USBR, dloney@usbr.gov)
Location: Sierra 1

1. WTMP Development (Facilitated Adoption and Historical Reanalysis) – Mechele Pacheco (USBR)
2. Quantifying Sensitivity of Water Temperature Target Schedule to Meteorological Conditions – Melanie Holland (USBR)
3. Trinity Water Temperature Modeling for the Long-Term Operations – Mussie Beyene (USBR)
4. San Joaquin River Water Quality Model in CalSim 3 – Yuan Hui (Stantec)
5. Folsom Temperature Control Shutter Modeling – Drew Loney (USBR)

Session 23. Machine Learning Applications in Water Resources (Part 1)

Moderator: Tariq Kadir (DWR, retired, tkcalwater@gmail.com)
Location: Sierra 2

1. Machine Learning Approaches for Predicting Reference Evapotranspiration and Irrigated Areas – Andre Daccache (UC Davis)
2. Machine Learning Approaches for Estimating Aquifer Hydraulic Properties from Step-Drawdown Pump Tests: A Case Study in Central Valley, California – Behrooz Etebari (DWR)
3. Leveraging AI for Predicting Fallow Land and Resource Allocation in the San Joaquin Valley of California – Abid Sarwar (UC Merced)
4. Applying AI/Machine Learning Algorithms for Forecasting California Water Year Types – Tariq Kadir (DWR, retired)

Session 24. Water Accounting: The importance (and challenge) of measuring water in the field to ground-truth our models

Moderator: Brandon Ertis (Davids Engineering, brandon@davidsengineering.com)
Location: Sutter

1. Groundwater Demand Management: Quantifying groundwater pumping to support groundwater sustainability under the Sustainable Groundwater Management Act (SGMA) – Daniel Smith (Davids Engineering)

2. Increasing streamflow data availability through the California Stream Gaging Improvement Program (CalSIP) – Jeff Davids (Davids Engineering)

3. Field study to validate applied water estimates developed using an IDC model application – Brandon Ertis (Davids Engineering)

4. Better Models Need Better Measurements - Characterizing Stream-Aquifer Exchanges with Stream Reach Water Budgets – Jeff Davids (Davids Engineering)

5. Leveraging Satellite-Based Evapotranspiration to Support Sustainable Water Management in California – A. J. Purdy (CSU Monterey Bay)

10:00–11:45 am

Session 25. Developments in 2026 on Historical Hydrology and Calibration of the CalSim Historical Model

Moderator: James Polsinelli (DWR, james.polsinelli@water.ca.gov)
Location: Sierra 1

1. CSHydro Updates: Transition from Legacy CSHydro to the IDC Based Integrated Framework – Mohammad Hasan (DWR); Jay Wang (DWR)

2. Historical CalSim 3 GW-DLL Calibration – Sercan Ceyhan (Woodard & Curran); Puneet Khatavkar (Stantec)

3. CalSim3 Historical Hydrology Model (CS3HIST) – Bridget Childs (Stantec)

4. Surface Water Calibration of the CalSim3 Historical Hydrology Model (CS3HIST) – James Polsinelli (DWR)

Session 26. Machine Learning Applications in Water Resources (Part 2)

Moderator: Kevin He (DWR, Kevin.He@water.ca.gov)
Location: Sierra 2

1. Machine Learning for Streamflow Prediction – Jay Chao (UCD)

2. Machine Learning-Based Tools for Ion Simulation in the Delta – Peyman Namadi (DWR)

3. Delta Algal Bloom Modeling using Machine Learning – Gourab Saha (DWR)

4. Machine Learning Applications in the Delta: Review and Outlook – Kevin He (DWR)

5. Transfer Learning for Multi-Fidelity Surrogate Modeling of Delta Salinity Under Extended Drought and Climate Scenarios – Eli Ateljevich (DWR)

Session 27. Strengthening demand and process representation in WEAP: advanced data integration for statewide planning

Moderator: Marina Mautner (SEI, marina.mautner@sei.org)
Location: Sutter

1. Updates to Central Valley WEAP model for California Water Plan Update 2028: enhancements to irrigation demands and groundwater processes – Brian Joyce (SEI)

2. Implementing WEAP to incorporate California's South Coast and San Fransico Bay regions into the 2028 Water Plan Update – Andrea Carlos (SEI)

3. Designing a modular, cloud-based crop-mapping system for the SacWAM modeling workflow – Marina Mautner (SEI)

4. Early-season crop identification to support irrigation demand and return flow representation in WEAP-based planning models – Romina Díaz Gómez (SEI)

11:45–12:30 pm

Lunch

1:15–3:00 pm

Session 28. Updates to DWR's C2VSim Fine Grid Model

Moderator: Craig Altare (DWR, craig.altare@water.ca.gov)
Location: Sierra 1

1. Overview of DWR's C2VSimFG Application and Planned Updates for Version 2 – Uditha Bandara (DWR)

2. Updating the Central Valley Groundwater Level Observation Dataset – Kyle Hardage (DWR)

3. Revisions to the Representation of Pumping Wells in C2VSimFG – Andres Guillen (DWR)

4. New Developments in the Surface Water Components of C2VSimFG – Guobiao Huang (DWR)

Session 29. Recent updates of the DWR Delta Emergency Response Tool – Automation, Optimization, and Machine Learning

Moderators: John DeGeorge (GEI, jfdegeorge@rmanet.com);
Khalida Fazel (DWR, Khalida.Fazel@water.ca.gov)
Location: Sierra 2

1. Overview of the Delta Emergency Response Tool (placeholder title) – Abdullah Karim (DWR)

2. Delta Flood Emergency Management Plan Supplement C (placeholder title) – Alyssa Virgil (DWR)

3. Optimization of temporary barrier placement to reduce water supply impacts after a levee failure event (placeholder title) – Ryan Ripken (Resource Management Associates, Inc.)

4. Application of Reinforcement Learning to create a Machine Learning Agent that can play the Delta Recovery Game. – John DeGeorge (GEI)

Session 30. Recent Advances in SacWAM and SJWAM Development

Moderator: Charles Young (SEI, chuck.young@sei.org)
Location: Sutter

1. Forecasting Central Valley Runoff and Operations Using NMME 7-Month Forecasts – Chuck Young (SEI)

2. Operations based on Water Right Priority Dates in SacWAM and SJWAM – Puneet Khatavkar (Stantec)

3. Hydro-economic integration in SacWAM for dynamic cropping response to water availability and aquifer levels – Laura Forni (SEI)

4. Streamlining California water management tools: coupling IWFM and WEAP to improve stream–aquifer representation in the Central Valley – Marina Mautner (SEI)

3:15–5:00 pm

Session 31. Sites Reservoir Modeling Updates

Moderator: Reed Thayer (Jacobs, reed.thayer@jacobs.com)
Location: Sierra 1

1. Lessons Learned in Improving Transfer Logic in CalSim 3 – Reed Thayer (Jacobs)

2. Sites Project Modeling & Results Processing – Chad Whittington (Jacobs)

3. Reservoir and River Water Temperature Modeling for Sites Project – Samaneh Saadat (Jacobs); Sai Nudurupati (Jacobs)

4. Temporal Downscaling of CalSim 3 with USRDOM for the Sites Project – Sai Nudurupati (Jacobs); Chad Whittington (Jacobs)

Session 32. Developments in Open Water Data

Moderators: Christina McCready (DWR, Christina.McCready@water.ca.gov);
Paul Shipman (DWR, paul.shipman@water.ca.gov)
Location: Sierra 2

1. Presentation on application of AI models to water loss data – SWRCB/DWR/Virginia Tech

2. Catalog of DWR's Major Models – Jose Alarcon (DWR)

3. Digitization of historical climate archive – Paul Shipman (DWR)

4. California Water Data Consortium - Improving the Usability of Data and Data Portals – Robyn Grimm (California Water Data Consortium)