

**USCID Water Management Conference**

***Water Shortages and Drought: From  
Challenges to Solutions***



**USCID**

*The U.S. society for irrigation and drainage professionals*

*Cooperating Organization —*

***Groundwater Resources Association of California***

**May 17-20, 2016  
San Diego, California**

## Program

### Monday, May 16

1:00 p.m. - 5:00 p.m. **Optional Workshop on Subsurface Drip Irrigation**

### Tuesday, May 17

7:00 a.m. - 5:30 p.m. **Registration**

8:00 a.m. - 11:30 a.m. **Field Tour**

This half-day field trip will visit **San Vicente Dam**. The San Diego County Water Authority dam was recently raised 117 feet, more than doubling the storage capacity of San Vicente Reservoir. Completed in 2014, it is the largest dam raise in the U.S. and the tallest roller-compacted concrete dam raise in the world.

12:00 noon - 1:15 p.m. **Lunch with Speaker**

Moderator — **Brian T. Wahlin**, WEST Consultants, Inc., and President, USCID

Speaker — **Steven Hvinden**, Chief, Boulder Canyon Operations Office, Bureau of Reclamation, Boulder City, NV

1:30 p.m. - 3:00 p.m. **Opening Plenary Session — Groundwater Law and Drought Issues**

Moderator — **Steve Macaulay**, Macaulay Water Resources, Winters, CA

*Keynote Address — The Successes and Challenges of Integrating Agricultural Conservation with Urban Partnerships*

**Tina Anderholt Shields**, Water Manager, Imperial Irrigation District, Imperial, CA

*Sustainable Groundwater Management*

**Richard Juricich**, California Department of Water Resources, Sacramento, CA

*Yakima River Integrated Water Management Plan*

**Bryan Simpson**, Bureau of Reclamation, Denver, CO

3:00 p.m. - 3:30 p.m. **Break**

3:30 p.m. - 4:30 p.m. **Opening Plenary Session, (continued)**

*Evolving Capital Improvement Program to Meet Future Water Demands*

**Justin M. Hopkins**, **Paul R. Fuchslin** and **Kevin L. King**, Solano Irrigation District, Vacaville, CA; and **Bryan P. Thoreson**, Davids Engineering, Inc., Davis, CA

*Towards Operational Mapping of Agricultural Drought Impacts and Evapotranspiration with Satellite Data*

**Forrest Melton**, **Lee Johnson**, **Kirk Post**, **Alberto Guzman**, **Carolyn Rosevelt**, **Rachel Spellenberg** and **Isabel Zaragoza**, NASA ARCCREST, California State University, Moffett Field, CA; **Justin Huntington**, **Charles Morton** and **Andrew Vitale**, Desert Research Institute, Reno, NV; **James Verdin**, U.S. Geological Survey, Sioux Falls, SD; **Rick Mueller** and **Patrick Willis**, USDA National Agricultural Statistics Service, Fairfax, VA; and **Kent Frame**, **Jeanine Jones** and **Bekele Temesgen**, California Department of Water Resources, Sacramento, CA

4:30 p.m. - 5:00 p.m. **USCID Members Meeting**

5:00 p.m. - 5:30 p.m. **Meet the Exhibitors**

5:30 p.m. - 7:30 p.m. **Networking Reception and Exhibition**

### Wednesday, May 18

7:00 a.m. - 5:00 p.m. **Registration**

7:00 a.m. - 8:00 a.m. **Continental Breakfast in Exhibit Hall**

8:00 a.m. - 9:30 a.m. **International Plenary Session**

Moderators — **Khaled M. Bali**, University of California, Holtville, CA; and **David E. Bradshaw**, Imperial Irrigation District, Imperial, CA

*Surface and Groundwater Management in Pakistan*

**Sajid Ali Bhutto**, Irrigation Department, Government of Sindh, Pakistan

*The Aral Sea Disaster: National or International Issue?*

**Ilhom Miliyev**, Uzbekistan National Committee on Irrigation and Drainage, Tashkent, Uzbekistan

*Assessment of Groundwater Recharge Dams within Sustainability of Groundwater Irrigation in GAP Region*

**Remziye Yildiz Gülađaci** and **Esra Aydinöz**, General Directorate of State Hydraulic Works, Sanliurfa, Turkey

9:30 a.m. - 10:30 a.m. **Break in Exhibit Hall**

10:30 a.m. - 12:00 noon **International Plenary Session (continued)**

Moderators — **Khaled M. Bali** and **David E. Bradshaw**

*Red Sea-Dead Sea Water Supply Project — A Complex Water Supply Project, between Jordan, Israel, and the Palestinian Authority*

**Del Smith**, Bureau of Reclamation, Denver, CO

*Irrigation Issues in Mexico*

**Luis Rendon**, National Water Commission, Mexico

12:00 noon - 1:15 p.m. **Lunch with Speaker**

Moderator — **Brian T. Wahlin**

Speaker — **Brandon Goshi**, Metropolitan Water District of Southern California, Los Angeles, CA

1:30 p.m. - 3:00 p.m. **Concurrent Session 1A — Water and Groundwater Management**

Moderators — **James E. Ayars**, Agricultural Research Service, USDA, Parlier, CA; and **James D. Oster**, Consultant, Graeagle, CA

*Economic and Water Savings Analyses to Address Water Shortages in Mojave Water Agency Baja Subarea*

**Todd Gaston** and **Mark Spears**, Bureau of Reclamation, Denver, CO

*On-Farm Flood Irrigation Automation: Case Study of Installed System in Holtville, California*

**Jack Goldwasser**, Watch Technologies, Grants Pass, OR

*Market-Based Water Transfers in California — A 25-Year Retrospective*

**Steve Macaulay**, Macaulay Water Resources, Winters, CA

1:30 p.m. - 3:00 p.m. **Concurrent Session 2A — Water and Food Sustainability**

Moderators — **Charles M. Burt**, California Polytechnic State University, San Luis Obispo, CA; and **Alan Jackson**, Rubicon Water, Fort Collins, CO

*Evaluating a Soil Moisture Supplement as a Climate-Smart Agriculture Tool*

**Michael Davidson**, Davidson Consultants, Altadena, CA; and **Ram Vencatasamy** and **V.S. Chummu**, Agricultural Research & Extension Unit, Quatre Bornes, Mauritius

*Will the West Survive?*

**David C. Curtis**, WEST Consultants, Inc., Folsom, CA

*An Analysis of Urban Agriculture and Small Farm Water Use and Irrigation Efficiency*

**Tyler Pratt** and **Neil Allen**, Utah State University, Logan, UT

3:00 p.m. - 3:30 p.m. **Break in Exhibit Hall**

3:30 p.m. - 5:00 p.m. **Concurrent Session 1B — Water and Groundwater Management (continued)**

Moderators — **James E. Ayars** and **James D. Oster**

*Funding Place-Based Planning for Water Resources in Oregon: A New Approach*

**Laura Ann Schroeder**, Schroeder Law Offices, PC, Portland, OR

*Controlling Salt Problems on the San Joaquin River*

**Stan Malinky**, KISTERS North America, Citrus Heights, CA; and **Nigel W. T. Quinn**, Berkeley National Laboratory, Berkeley, CA

*Building a Resilient Watershed – An Integrated Water Management Approach*

**Mark Norton**, Santa Ana Watershed Project Authority, Riverside, CA

3:30 p.m. - 5:00 p.m. **Concurrent Session 2B — Water and Food Sustainability (continued)**

Moderators — **Charles M. Burt** and **Alan Jackson**

*The Benefits of Air-Injection for Sub-Surface Drip Irrigation: A Case Study*

**Michael Davidson**, Davidson Consultants, Altadena, CA

*ET-Based Irrigation Management in Leaf Lettuce and Cabbage: Results from 2015 Trials*

**Lee Johnson**, CSUMB, NASA ARC-CREST, Seaside, CA;

**Michael Cahn**, UC Cooperative Extension, Salinas CA;

**Sharon Benzen**, USDA-ARS, Salinas, CA; **Isabel Zaragoza**, CSUMB, NASA ARC-CREST, Seaside, CA;

**Laura Murphy** and **Tom Lockhart**, UC Cooperative Extension, Salinas CA; and **Forrest Melton**, CSUMB, NASA ARC-CREST, Seaside, CA

6:30 p.m. - 7:00 p.m. **Reception**

7:00 p.m. - 9:00 p.m. **Dinner with Speaker**

Moderator — **Brian T. Wahlin**

*Climates Change. That's What Climates Do.*

**David C. Curtis**, WEST Consultants, Inc., Folsom, CA

## Thursday, May 19

7:00 a.m. - 5:00 p.m. **Registration**

7:00 a.m. - 8:00 a.m. **Continental Breakfast and Poster Session**

*Introduction of Teledyne Isco Flow Monitoring Instruments for Irrigation*

**Phillip B. Liescheski, Keith A. Belt, Paul H. Spieker and Kaushal R. Trivedi**, Teledyne Isco, Lincoln, NE

*Case Studies in Urban and Small Farm Water Use and Irrigation Efficiency*

**Tyler Pratt**, Utah State University, Logan, UT

8:00 a.m. - 10:00 a.m. **Concurrent Session 3A — Infrastructure Investments**

Moderators — **Samuel W. Schaefer**, GEI Consultants, Inc., Santa Barbara, CA; and **Michael Davidson**, Eagle-Spec Sales Group, Altadena, CA

*Increasing Agricultural Water Use Efficiency in the Lower Gunnison River Basin of Colorado*

**David Kanzer**, Colorado River Water Conservation District, Glenwood Springs, CO

*Common Mistakes in Small Dam Maintenance and Inspection*

**Owen Kubit**, Provost & Pritchard Consulting Group, Clovis, CA

*California's Sustainable Groundwater Management Act — Developing Supplies for Groundwater Replenishment*

**Steve Macaulay**, Macaulay Water Resources, Winters, CA

*Dixie Valley, Nevada, Groundwater Export Study*

**Mark Spears**, Bureau of Reclamation, Denver, CO

8:00 a.m. - 10:00 a.m. **Concurrent Session 4A — Resilience in Water Management**

Moderators — **W. Martin Roche**, Consultant, Grass Valley, CA and **Delbert M. Smith**, Bureau of Reclamation, Denver, CO

*Sacramento River Operations and Drought Management — A Solution for Competing Demands*

**Angela Bezzone and Anne Kwedar**, MBK Engineers, Sacramento, CA

*Fluid Water Management in the Western U.S.*

**Brett Bovee**, WestWater Research, Fort Collins, CO

*Adapting to Drought: Assessing and Controlling Groundwater Interference with Surface Water in Oregon*

**Laura Ann Schroeder**, Schroeder Law Offices, PC, Portland, OR

*Water Conservation in Western Nevada County California*

**W. Martin Roche**, Consulting Engineer, Grass Valley, CA

10:00 a.m. - 10:30 a.m. **Break**

10:30 a.m. - 12:00 noon **Concurrent Session 3B — Infrastructure Investments (continued)**

Moderators — **Samuel W. Schaefer** and **Michael Davidson**

*Folsom Auxiliary Pumping System*

**Fred Holz**, Bureau of Reclamation, Sacramento, CA

*Sand Dams: An Innovative Approach to Dryland Water Storage in East Africa*

**Jon Vidulich**, WEST Consultants, Inc., San Diego, CA

*Maximizing Infrastructure: Turning Falling Water into Rising Profit (IID's Small Hydroelectric Program)*

**Matthew Swindle**, NLine Energy, Inc.; and **Mario Escalera**, Imperial Irrigation District, Imperial, CA

10:30 a.m. - 12:00 noon **Concurrent Session 4B — Resilience in Water Management (continued)**

Moderators — **W. Martin Roche** and **Delbert M. Smith**

*Managing for Deficit Irrigation*

**Marshall English**, Oregon State University, Corvallis, OR; and **Charles Hillyer**, Texas A&M University, College Station, TX

*Protecting Groundwater with Subsurface Drip Irrigation*

**James E. Ayars**, Agricultural Research Service, USDA, Parlier, CA; and **Claude J. Phene**, SDI+, Clovis, CA

*Increasing Water Use Efficiency in Alfalfa Production Under Subsurface Drip Irrigation*

**Aliasgahr Montazar, James Radawich and Daniele Zaccaria**, University of California, Davis, CA; **Khaled Bali**, University of California, El Centro, CA; and **Daniel Putnam**, University of California, Davis, CA

12:00 noon - 1:15 p.m. **Lunch with Speaker**

Moderator — **Brian T. Wahlin**

Speaker — **Graheme Donaldson**, Imperial Irrigation District, Imperial, CA

1:30 p.m. - 3:00 p.m. **Plenary Panel Discussion — Shared Water Resources Responsibilities at the Local, State/Provincial and National Levels**

Moderator — **Laura A. Schroeder**, Schroeder Law Offices, PC, Portland, OR

**Thaddeus L. Bettner**, Glenn-Colusa Irrigation District, Willows, CA

**Charles M. Burt**, California Polytechnic State University, San Luis Obispo, CA

**Del Smith**, Bureau of Reclamation, Denver, CO

**Mark Svendsen**, Water Resource Consultant, Philomath, OR

**Bryan Thoreson**, Davids Engineering, Davis, CA

3:00 p.m. - 3:30 p.m. **Break in Exhibit Hall**

3:30 p.m. - 5:00 p.m. **Plenary Panel Discussion (continued)**

## Friday, May 20

8:00 a.m. - 5:30 p.m.      **Field Tour with lunch**

This day-long tour will visit the **Imperial Irrigation District** and nearby areas of interest. With more than 3,000 miles of canals and drains, IID is the largest irrigation district in the nation. Approximately 97 percent of the water IID transports is used for agricultural purposes; Imperial County ranks as one of the top 10 agricultural regions nationwide. The tour will include stops to see drip irrigation on alfalfa, a Solar Panel Field, and Rubicon automated flood gates. Lunch and a tour will be held at the University of California Desert Research and Extension Center. The tour will go to the Salton Sea during the afternoon, with stops at Red Hill Bay and the Marine Habitat Pilot Project.

(Updated May 4, 2016)