

**USCID Eighth International Conference
on Irrigation and Drainage**

***Sustainable Basin Water Management –
Challenges of Supply and Demand
Management at the Basin Scale***



USCID

The U.S. society for irrigation and drainage professionals

**June 2-5, 2015
Reno, Nevada**

Program

Tuesday, June 2

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 the Desert Research Institute.

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

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

Speaker — **Jason King**, Nevada State Engineer, Carson City, NV

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

Moderators — **Samuel W. Schaefer**, GEI Consultants, Inc., Santa Barbara, CA; and **Laura A. Schroeder**, Schroeder Law Offices, PC, Portland, OR

Keynote Address

Manucher Alemi, Policy Advisor for Statewide Integrated Water Management, California Department of Water Resources, Sacramento, CA

California's Groundwater Sustainability Act

Rich Juricich, California Department of Water Resources, Sacramento, CA

Desert Research Institute

Kelly Redmond, Desert Research Institute, Reno, NV

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

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

Drought Impacts on Agriculture and Industry in Nevada

Robert K. Martinez, Consultant, Sparks, NV

Colorado River Drought

Terry Fulp, Lower Colorado Regional Director, Bureau of Reclamation, Boulder City, NV

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, June 3

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. **Plenary Session — Panel Discussion: Groundwater Management**

Moderator — **Steven C. Macaulay**, Macaulay Water Resources, Davis, CA

Panel Members:

Aaron Fukuda, District Engineer, Tulare Irrigation District, Tulare, CA

Bennie Hodges, Manager, Pershing County Water Conservation District, Lovelock, NV

Shane Lindstrom, Water Management Engineer, Pima-Maricopa Irrigation Project, Sacaton, AZ

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

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

10:30 a.m. - 12:00 noon **Plenary Session — Panel Discussion: Groundwater Management (continued)**

Moderator — **Steven C. Macaulay**

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

Moderator — **Brian T. Wahlin**

Speaker — **Dan Keppen**, Executive Director, Family Farm Alliance, Klamath Falls, OR

1:30 p.m. - 3:00 p.m. **Plenary Technical Session — Basin Water Management**

Moderators — **Grant G. Davids**, Davids Engineering, Inc., Davis, CA; and **Jeff T. Shaw**, Stantec Consulting Services, Inc., Sacramento, CA

Bureau of Reclamation Drought Program

Delbert M. Smith, Bureau of Reclamation, Denver, CO

California's Sustainable Groundwater Management Act: Background and Implementation

Steve Macaulay, Macaulay Water Resources, Davis, CA; and **Trevor Joseph**, California Department of Water Resources, Sacramento, CA

State Strategies for Sustainable Groundwater Management and California's New Act

Sarah R. Liljefelt and **Kevin J. Johnston**, Schroeder Law Offices, P.C.

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

3:30 p.m. - 5:30 p.m. **Plenary Technical Session
— Basin Water Management (continued)**

Moderators — **Grant G. Davids** and **Jeff T. Shaw**

Governance Challenges for Comprehensive Groundwater Management

Steve Macaulay, Macaulay Water Resources, Davis, CA

Sustainable Groundwater Management — A Cooperative Agreement Between Modesto Irrigation District and the City of Modesto

Anna Brathwaite and **John B. Davids**, Modesto Irrigation District, Modesto, CA

Colorado River Basin Supply and Demand Study (CRBS) – Agricultural Water Conservation, Productivity, and Transfers Workgroup Outcomes

Greg Gates, CH2MHill, Albuquerque, NM; and **Ken Nowak**, Bureau of Reclamation, Boulder, CO

Irrigated Lands Regulatory Program: Aspects of Managing a Coalition

David Halopoff, Provost & Pritchard Consulting Group, Clovis, CA

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

7:00 p.m. - 9:30 p.m. **Dinner with Speaker**

Moderator — **Brian T. Wahlin**

Speaker — Honorable **Richard Wagner**, District Court Judge, Lovelock, NV

Thursday, June 4

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

7:00 a.m. - 8:00 a.m. **Continental Breakfast**

8:00 a.m. - 10:00 a.m. **Concurrent Session 1A — Sustainable Management of Groundwater and Surface Water**

Moderators — **Brad J. Arnold**, GEI Consultants, Inc., Bakersfield, CA; and **David E. Bradshaw**, Imperial Irrigation District, Imperial, CA

Development of an Ideal Groundwater Recharge Project – Laguna Irrigation District Recharge Basin No. 11

Owen Kubit and **Vincent Luccesi**, Provost & Pritchard Consulting Group, Clovis, CA

Modern Groundwater Management in the Sacramento Valley

Steve Macaulay, Macaulay Water Resources, Davis, CA

Continuity vs. the Crowd: Tradeoffs Between Continuous and Temporally Discrete Hydrologic Monitoring

Jeff Davids, Davids Engineering, Inc.; and **Steffen Mehl** and **James Norris**, CSU Chico, Chico, CA

The Waters of the Walker Basin

Jim Shaw, Walker River Water Master

8:00 a.m. - 10:00 a.m. **Concurrent Session 2A — Basin Water Planning**

Moderators — **Randy Hopkins**, Provost & Pritchard Consulting Group, Fresno, CA; and **Delbert M. Smith**, Bureau of Reclamation, Denver, CO

Feather River Regional Agricultural Water Management Plan

Byron Clark, **Brandon Ertis**, **Tommy Ostrowski** and **Grant Davids**, Davids Engineering, Inc., Davis, CA

Visualization of Basin-Wide Agricultural Water Use in Monsoon Asia for Water Footprint Inventory Analysis

Takao Masumoto, National Institute for Rural Engineering, Naro, Japan; and **Takeo Yoshida**, University of Arizona, Tucson, AZ

Implications of Uncontrolled Runoff in Landscape Irrigation

Michael Davidson, Davidson Consultants, Altadena, CA

Estimation of Climate Change Impacts on Flooding in Low-Lying Paddy Areas in Japan

Hiroki Minakawa and **Takao Masumoto**, National Institute for Rural Engineering, Naro, Japan

South Platte River Management of Groundwater and Surface Water

Delbert M. Smith, Bureau of Reclamation, Denver, CO

Conjunctive Water Management along the Humboldt River

Matthew J. Curti, Schroeder Law Offices, PC, Reno, NV

Humboldt River Groundwater Interference

Kirk Swanson, Farr West Engineering, Reno, NV

Addressing Climate Change Impacts to Water Resources in Reclamation

Toni E. Turner, Bureau of Reclamation, Boise, Idaho

Kings Basin Groundwater Assessment Report and EV

Matthew Zidar and **Jonathan Goetz**, GEI, Inc., Rancho Cordova, CA

Future Water Availability for Agriculture in SAR (2050): Climate Change, Population Growth, and Land Use Patterns

Jorge Escurra, RTI International, Rockville, MD

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

10:30 a.m. - 12:00 noon Concurrent Session 1B — Sustainable Management of Groundwater and Surface Water (continued)

Moderators — **Brad J. Arnold** and **David E. Bradshaw**

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

Moderator — **Brian T. Wahlin**

Speaker — **Justin L. Huntington**, Desert Research Institute, Reno, NV

1:30 p.m. - 3:00 p.m. **Concurrent Session 3A — Technologies**

Moderators — **James E. Ayars**, Agricultural Research Service, USDA, Parlier, CA; and **John B. Davids**, Modesto Irrigation District, Modesto, CA

Remotely Sensed Land Use and Evapotranspiration Applications in Agricultural Systems — Supporting Water Management Decisions

Mica Heilmann, **Joel Kimmelshue** and **Zhongwu Wang**, Land IQ, Sacramento, CA

Spatial Net Groundwater Use from Remotely Sensed Evapotranspiration and Surface Data

Daniel J. Howes and **Charles M. Burt**, California Polytechnic State University, San Luis Obispo, CA; **Ali Taghavi**, RMC Water and Environment, Sacramento, CA; and **Lucas Hoffman**, California Polytechnic State University, San Luis Obispo, CA

Examples of Remote Sensing to Support Advanced Water Management

Byron Clark, **Bryan Thoreson** and **Grant Davids**, Davids Engineering, Davis, CA

1:30 p.m. - 3:00 p.m. **Concurrent Session 4A — Competing Uses of Water and Water Transfers**

Moderators — **Sara Harper**, MBK Engineers, Sacramento, CA; and **W. Martin Roche**, Consulting Engineer, Grass Valley, CA

Water Transfers Structured to Fund On-Farm Conservation Improvements

Steven R. Knell, Oakdale Irrigation District, Oakdale, CA

Infrastructure Improvements for Regional Water Management to Support Banking, Transfers and Exchanges

Samuel W. Schaefer, GEI Consultants, Inc., Santa Barbara, CA

Assessment of Through-Delta Water Transfers for California Water Agencies

Larry Rodriguez, GEI Consultants, Inc., Bakersfield, CA; **Steven Hirsch**, Metropolitan Water District, Los Angeles, CA; and **Brad Arnold** and **Timothy Gobler**, GEI Consultants, Inc., Bakersfield, CA

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

3:30 p.m. - 5:30 p.m. **Concurrent Session 3B — Technologies (continued)**

Moderators — **James E. Ayars** and **John B. Davids**

Improved Water Supply Forecasts Using Soil Moisture Data
B. Keith Bellingham, Stevens Water Monitoring Systems, Portland, OR; and **Jolyne Lea**, Natural Resources Conservation Service, USDA, Portland, OR

Application of SonTek ADVM's in Water Distribution Management for Irrigation Systems

Daniel Wagenaar and **Janice Landsfeld**, SonTek, San Diego, CA

Development of Drying System for Dew Collection to Supplement Minimum Water Required for Grazing Plants in arid Regions

Mohamed I. Alzarrah, King Faisal University, Kingdom of Saudi Arabia

Water and Nitrogen Requirements of Subsurface Drip Irrigated Pomegranate

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

3:30 p.m. - 5:30 p.m. **Concurrent Session 4B — Competing Uses of Water and Water Transfers (continued)**

Moderators — **Sara Harper** and **W. Martin Roche**

Improved In-District Water Accounting to Guide Long Range Planning in the Merced Irrigation District

Jason Smesrud, CH2M Hill, Inc., Portland, OR; **Tyler Hatch**, CH2M Hill, Inc., Sacramento, CA; and **Hicham Eltal**, Merced Irrigation District, Merced, CA

Where Has All The Water Gone? Can Ag-Urban Partnerships Prevent a Food Crisis?

Laura A. Schroeder and **Kevin J. Johnston**, Schroeder Law Offices, PC, Portland, OR

Ag to Urban Water Transfers — Finding Balance

Steven R. Knell, Oakdale Irrigation District, Oakdale, CA

Irrigated Lands Regulatory Program Technical Reporting Requirements

David Halopoff, Provost & Pritchard Consulting Group, Clovis, CA

Friday, June 5

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

This day-long tour will focus on the Little Truckee River and water use in the Sierra Valley.

(Updated May 27, 2015)