

**Program**

***Upgrading Technology and Infrastructure  
in a Finance-Challenged Economy***

***A USCID Water Management Conference***

**Sponsored by**



**USCID**

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

**March 23-26, 2010  
Sacramento, California**

# Preliminary Conference Program

## Tuesday, March 23

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

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

The Field Tour will visit the Freeport Project Intake Facility, a newly constructed large capacity pumping plant.

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

Moderator — **Mark Svendsen**, President, USCID, and Consultant, Philomath, OR

### *Conference Opening Keynote Address*

**Michael J. Engelbrecht**, Wells Fargo, Los Angeles, CA

1:30 p.m.- 5:00 p.m. **Opening Plenary Session**

Moderator — **Bryan P. Thoreson**, Davids Engineering, Inc., Davis, CA

### *Urban/Ag Partnerships Keynote Presentation*

**Brian J. Brady**, Imperial Irrigation District, Imperial, CA

### *Innovative Technologies Keynote Presentation*

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

### *Upgrading Infrastructure Keynote Presentation: Our Water Our Future*

**David Downie**, Victoria Department of Sustainability and Environment, Melbourne, Victoria, Australia

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

### *Finance and Economics Keynote Presentation: Concepts in Water Resources Economics — Past and Future*

**Rick L. Gold**, CDM, Salt Lake City, UT

### *Water and Energy Supply/Conservation Keynote Presentation*

**Steven C. Macaulay**, West Yost Associates, Davis, CA

### *Water Planning Keynote Presentation*

**Mike Wade**, Agricultural Water Management Council and California Farm Water Coalition, Sacramento, CA

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

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

## Wednesday, March 24

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

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

8:00 a.m. - 9:30 a.m. **Concurrent Session IA — Innovative Technologies**

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

### *Glenn-Colusa Irrigation District Water Balance Model: A Foundational Component of a District Resource Management Plan*

**Thaddeus Bettner**, Glenn-Colusa Irrigation District, Willows, CA; and **Grant Davids**, Davids Engineering, Inc., Davis, CA

### *Application of Canal Automation at the Central Arizona Irrigation and Drainage District*

**Robert J. Strand** and **Albert J. Clemmens**, Agricultural Research Service, USDA, Maricopa, AZ

### *Distributing Flow Mismatches in Supply-Constrained Irrigation Canals through Feedback Control*

**Albert J. Clemmens** and **Robert J. Strand**, Agricultural Research Service, USDA, Maricopa, AZ

8:00 a.m. - 9:30 a.m. **Concurrent Session IB — Urban/Ag Partnerships**

Moderators — **Ali Elhassan**, Robertson-Bryan, Inc., Elk Grove, CA; and **Kenneth A. Steele**, Consultant, Stockton, CA

### *Developing Revenue Generating Infrastructure: Fresno Irrigation District's Waldron Banking Facilities*

**Randy Hopkins**, Provost and Pritchard Consulting Group, Clovis, CA; and **Bill Stretch**, Fresno Irrigation District, Fresno, CA

### *Cost Sharing Partnerships for Municipal Interbasin Transfer and Agricultural Water Conservation*

**Stacy Pandey**, Lower Colorado River Authority; **Ana Ramirez**, University of Texas; and **John McLeod**, Lower Colorado River Authority, Austin, TX

### *Marketing and Financing a Water Bank: "First Get Your House in Order"*

**David Dorrance** and **Andrew Werner**, Western Development and Storage, Los Angeles, CA; and **Wilmar Boschman**, Semitropic Rosamond Water Bank Authority, Rosamond, CA

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

10:30 a.m. - 12:00 noon **Concurrent Session IA — Innovative Technologies (continued)**

### *Creating the Ideal Communication Network*

**Dan Paladino**, FreeWave Technologies, Inc., Boulder, CO

### *Reference Evapotranspiration (ET<sub>o</sub>) Maps for California*

**Bekele Temesgen** and **Kent Frame**, California Department of Water Resources, Sacramento, CA

*Monitoring Near Real-Time Evapotranspiration Using SEBAL®: An Operational Tool for Water Agencies/Growers*

**Deepak Lal, Byron Clark, Bryan Thoreson, Grant Davids** and **Wim Bastiaanssen**, SEBAL North America, Inc., Davis, CA

10:30 a.m. - 12:00 noon **Concurrent Session IB — Urban/Ag Partnerships** (continued)

*Imperial Irrigation District Irrigation Scheduling and Event Management Pilot Program*

**Darren R. Fillmore**, Imperial Irrigation District, Imperial, CA; **Byron Clark** and **Grant G. Davids**, Davids Engineering, Inc., Davis, CA; and **John R. Eckhardt**, Imperial Irrigation District, Imperial, CA

*South Sutter Water District — A Case Study of an Agricultural and Urban Partnership*

**Sara F. Harper** and **Marc Van Camp**, MBK Engineers, Inc., Sacramento, CA

*Managing the Eastern San Joaquin County Sub-Basin — An Urban/Ag Partnership Case Study, Stockton East Water District*

**Kevin M. Kaufman**, Stockton East Water District, Stockton, CA

12:00 noon - 1:15 p.m. **Buffet Lunch in Exhibit Hall**

1:30 p.m. - 3:00 p.m. **Concurrent Session IIA — Upgrading Infrastructure**

Moderators — **Steve Knell**, Oakdale Irrigation District, Oakdale, CA; and **Neil W. Schild**, MWH Americas, Inc., Sacramento, CA

*Rising to the Climate Challenge*

**Murray Smith**, Northern Victoria Irrigation Renewal Project, Shepparton, Victoria, Australia

*Coachella Canal Lining Project: Cost Effective Construction for Large Scale Water Conservation*

**Daniel Charlton**, Coachella Valley Water District, Coachella, CA; **Wayne Dahl**, Dahl Consultants, Inc., Folsom, CA; **Chris Dull**, R.W. Beck, San Diego, CA; and **Ken Steele**, Consultant, Stockton, CA

*The All American Canal Lining Project: Interagency Teamwork for Conserving Water*

**Paul Peschel**, Imperial Irrigation District, Imperial, CA; **Wayne Dahl**, Dahl Consultants, Inc., Folsom, CA; **Paul Snipes**, Parsons Water and Infrastructure, Inc., San Diego, CA; **Neena Kuzmich**, R.W. Beck, San Diego, CA; **Todd Shields**, Imperial Irrigation District, Imperial, CA; **Chris Dull**, R.W. Beck, San Diego, CA; **Ken Steele**, Consultant, Stockton, CA; and **Vikki Dee Bradshaw**, Imperial Irrigation District, Imperial, CA

1:30 p.m. - 3:00 p.m. **Concurrent Session IIB — Finance and Economics**

Moderators — **W. Martin Roche**, Consulting Engineer, Grass Valley, CA; and **Gary Merkley**, Utah State University, Logan, UT

*Water Resources Economics and Project Development — A Case Study Approach*

**Rick L. Gold**, CDM, Salt Lake City, UT; **David C. Auslam, Jr.**, CDM, Sacramento, CA; and **Robert B. Hamilton**, Hamilton Economics, LLC, Golden, CO

*Utilizing Multiple Funding Avenues to Develop Necessary Infrastructure in James Irrigation District*

**Joseph D. Hopkins** and **Brian E. Ehlers**, Provost and Pritchard Consulting Group, Clovis, CA; and **John Mallyon**, James Irrigation District, San Joaquin, CA

*Collaborative Governance Structures for Joint Water Resources Projects*

**Kenneth A. Steele**, Consultant, Stockton, CA; and **Uli Kappus**, Parsons Water & Infrastructure, Inc., Denver, CO

3:00 p.m. - 4:00 p.m. **Break in Exhibit Hall**

4:00 p.m. - 5:30 p.m. **Concurrent Session IIA — Upgrading Infrastructure** (continued)

*Fresno Irrigation District's Three-Year Maintenance and Facility Upgrade Plan*

**Bill Stretch**, Fresno Irrigation District, Fresno, CA; and **David Mowry**, Blair Church & Flynn Consulting Engineers, Clovis, CA

*Irrigation Canal Improvements in Northern Utah for Enhancing Water Resources Management*

**Gary Merkley**, Utah State University, Logan, UT

*Funding Programs for Water Management and Efficiency Measures*

**Sheri A. Looper** and **Tracy S. Slavin**, Bureau of Reclamation, Sacramento, CA

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

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

Moderator — **Mark Svendsen**

Speaker — **Roger K. Patterson**, Metropolitan Water District of Southern California, Los Angeles, CA

## Thursday, March 25

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

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

*Application of Conflict Resolution in Integrated Water Resource Management*

**E. Fallah-Mehdipour** and **O. Bozorg Haddad**, University of Tehran, Tehran, Iran

*Water Purification Process at Children Anti-Tuberculosis Sanatorium in Aral Sea Area: Nukus City, Republic of Karakalpakstan, Uzbekistan*

**Vladimir Krepl** and **Dilmurod Gaybullaev**, Czech University of Life Sciences, Prague, Czech Republic

*Numerical Design Procedure for Micro-Irrigation Manifolds*

**Gary Merkley**, Utah State University, Logan, UT

*Alternate Management Strategies for Reduction of BOD Along the River Buriganga, Bangladesh*

**Md. Ashiqur Rahman**, **Tihomir Ancevic** and **Dhia Al Bakri**, The University of Sydney, Sydney, Australia

8:00 a.m. - 9:30 a.m. **Concurrent Session IIIA — Water and Energy Supply/Conservation**

Moderators — **Gary Rossi de Guevara**, Advanced Drainage Systems, Santa Rosa, CA; and **Todd L. Hillaire**, California Department of Water Resources, Red Bluff, CA

*System Optimization Review of Shafter-Wasco Irrigation District*

**Terry Nguyen**, GEI Consultants, Glendale, CA; and **Sam Schaefer**, GEI Consultants, Bakersfield, CA

*The Use of Acoustic Doppler Sensors to Improve Flow Measurements During Drought Conditions in Spain*

**M.J. Cook**, SonTek/YSI, San Diego, CA; **Neus Tarafa**, **Felix Bueno** and **Andrés Alonso-Martirena**, Qualitas Instruments, Cerdanyola, Spain; and **Juan José Villegas**, Agencia Catalana de l'Aigua, Barcelona, Spain

*Future Funding Opportunities for Water Districts — What's on the Horizon?*

**L. Ospina** and **E. Ringer**, GEI Consultants, Inc., Glendale, CA

8:00 a.m. - 9:30 a.m. **Concurrent Session IIIB — Water Planning**

Moderators — **Mark Leu**, CH2M Hill, Sacramento CA; and **Steven C. Macaulay**, West Yost Associates, Davis, CA

*Intergovernmental Agreements: Taking Advantage of Irrigation District Partnerships*

**Cortney D. Duke**, Schroeder Law Offices, P.C., Portland, OR

*Cost Effective Irrigation Modernization: Nepal's Experiences*

**Suman Sijapati**, Nepal Department of Irrigation, Lalitpur, Nepal

*Water Supply Enhancement Project for the Poso Creek Integrated Regional Water Management Plan Region*

**S. Schaefer**, GEI Consultants, Inc., Santa Barbara, CA; **R. Iger** and **I. Medina**, GEI Consultants, Inc., Bakersfield, CA; and **P. Oshel**, Semitropic Water Storage District, Wasco, CA

9:30 a.m. - 10:30 a.m. **Break with Poster Papers**

10:30 a.m. - 12:00 noon **Technical Session III A — Water and Energy Supply/Conservation (continued)**

*Semitropic-Rosamond Water Bank Authority — Antelope Valley Water Bank*

**M. Rozman**, GEI Consultants, Inc., Glendale, CA; and **W. Boschman**, Semitropic-Rosamond Water Bank Authority, Wasco, CA

*Groundwater Storage and Recovery in South Sacramento County: Opportunities and Constraints*

**Ali M. Elhassan**, Robertson-Bryan, Inc., Elk Grove, CA

*Irrigating Alfalfa with Limited Water Supplies*

**Blaine Hanson**, **Steve Orloff**, **Khaled Bali**, **Blake Sanden** and **Dan Putnam**, University of California, Davis, Davis, CA

10:30 a.m. - 12:00 noon **Technical Session III B — Water Planning (continued)**

*"Framework" for the San Joaquin Valley Integrated Regional Water Management Plan*

**Sargeant J. Green**, California State University, Fresno, Fresno, CA

*Forecast-Coordinated Operations (F-CO) and Forecast-Based Operations of Reservoirs in the Central Valley, California*

**Naser J. Bateni** and **Matt Zidar**, GEI Consultants, Inc., Sacramento, CA

*Integrated Regional Water Management in California*

**Eric Hong**, California Department of Water Resources, Rancho Cordova, CA

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

Moderator — **Mark Svendsen**

Speaker — **Heather Cooley**, Pacific Institute for Studies in Development, Environment and Security, Oakland, CA

1:30 p.m. - 2:30 p.m. **Closing Plenary Session I**

Moderator — **Darell D. Zimbelman**, Rubicon Systems American, Inc., Loveland, CO

*Closing Keynote Address I*

**Kamyar Guivetchi**, Chief, Division of Statewide Integrated Water Management, California Department of Water Resources, Sacramento, CA

*Closing Keynote Address II*

**Donald R. Glaser**, Director, Mid Pacific Region, Bureau of Reclamation, Sacramento, CA

2:30 p.m. - 3:00 p.m. **Break with Poster Papers**

3:00 p.m. - 4:30 p.m. **Closing Plenary Session II**

*Panel Discussion — The Future of Water Resources  
Development*

**Heather Cooley**  
**Donald R. Glaser**  
**Rick L. Gold**  
**Kamyar Guivetchi**  
**Murray Smith**  
**Mike Wade**

**Friday, March 26**

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

This day-long tour will begin with a visit to flood control facilities of the Three Rivers Levee Improvement Authority and continue to several facilities of the Yuba County Water Agency, including a successful fish screen, water storage and diversion facilities, and a large hydro powerplant.

(Updated March 9, 2010)