



**Sacramento Chapter, Environmental & Water Resources Institute
American Society of Civil Engineers
In coordination with
WaterReuse California Annual Conference**

Back to the Future

California's New System Yield - A Paradigm Shift

Increasing System Yield in the Face of Uncertainty - Protecting the Future Beneficial Use of Water

**Sacramento Convention Center, 1400 J Street, Sacramento, California
Tuesday, March 27, 2012**

Symposium Theme

Between two expert panels, discussions will focus on the State's existing system yield, its current status and limitations. System yield is the foundation for all California water resources management actions. Yet it is being both diminished and shifted temporally through a variety of causal factors, forced climate change being paramount among those stressors. This Symposium will discuss those changes, the potential risks to existing entitlements, current inadequacies in infrastructure and operations in identifying and allocating that yield, how to improve system function in order to create multiple resource benefits (e.g., enhanced reservoir coldwater pool assets, energy generation through pumped storage hydro, ASR programs using surplus flood/stormwater flows, ag/urban recycled water, etc.), and how the current new era of water supply development can best meet this paradigm shift. From a use perspective, poignant questions will be raised such as, "*Why are contractors ever shorted when, on average, only about 40 percent of the annual precipitation is retained for managed use?*" More specifically, why, for example, should Central Valley farmers continue to take cuts in deliveries when excess river flows, above those required for minimum instream needs, occur every winter, especially from our source area watersheds? Can this paradigm shift provide the new hydrological basis where, "No Farmer Is Left Behind?" Certainly, the State's hydrology has long supported that contention. We will also raise awareness on the issue of water rights by asking such questions as, "*Are long-standing water rights at risk due to the increasing demands being placed on system yield from population growth, environmental regulation and the anticipated diminishment from climatic perturbations?*" A worthy inquiry since, at present, there exists virtually no information on this topic and many water users are beginning to ask, "*Will 'climate change' be the silent killer of existing water rights?*"

Context

Leading contemporary themes from around the world will help provide fresh perspectives for these candid discussions and ultimately ask "*Is California's hydrology really sustainable without a deliberate paradigm shift in how we view storage and manage excess outflow?*" This Symposium is intended to ask the hard questions based on a fundamental reaffirmation of contemporary system hydrology. Our acceptance of *non-stationarity* in the hydrologic baseline will hopefully, be the first step, in setting a new template for real

water policy change. A White Paper of the discussion points and recommendations will be prepared by the EWRI/ASCE and officially submitted to the Governor's Office following the Symposium.

Program:

7:30 Registration and Continental Breakfast

8:30 Opening Welcome

Pal Hegedus, P.E., D.WRE, Chair, EWRI Sacramento

8:35 Overview of Symposium

Robert Shibatani, Vice Chair, EWRI Sacramento and Symposium Chair

8:50 Keynote Address

Paul Reiter, Executive Director, International Water Association, Den Haag, Netherlands

9:15 Panel 1 - Current Status and Risks to California's Baseline Hydrology

How is the Hydrologic Baseline Changing and What are the Implications to Water Users?

Moderator – **Michael Anderson, Ph.D., P.E.**, Climatologist for the State of California

Expert Panelists

- **Kelly Redmond, Ph.D.**, Regional Climatologist, Western Regional Climate Center, Desert Research Institute, Reno, NV
- **Levi Brekke, Ph.D., P.E.**, Water & Climate Research Coordinator, Research and Development Office, U.S. Bureau of Reclamation, Denver, CO
- **Thomas Painter, Ph.D.**, Water and Carbon Cycles Group; Climate, Oceans and Solid Earth Sciences Section, Jet Propulsion Laboratory, NASA
- **Lorraine Flint, Ph.D.**, Research Hydrologist, U.S. Geological Survey
- **Roger Bales, Ph.D.**, Director, Sierra Nevada Research Institute, UC Merced

10:30 Break

10:45 Moderated Questions & Answers

11:30 Luncheon at the Sheraton Grand Hotel jointly with WateReuse

Luncheon Speaker

"Implementing Basin Studies Across the Mid-Pacific Region: Assessing Climate Change Risks to Water Resources Across the Western States"

Pablo Arroyave, Deputy Regional Director, U.S. Bureau of Reclamation, Mid-Pacific Region

1:00 Panel 2 - Adaptations and Required Improvements

What are the Suite of Actions being Implemented in Meeting those Threats?

Moderator - **Robert Shibatani**, CEO, The SHIBATANI GROUP, Inc., and Vice Chair, EWRI Sacramento

Expert Panelists

- **Paul Fleming**, Convening Lead Author, Water Resources Chapter, 2013 National Climate Assessment 2013, Seattle Public Utilities, Manager, Climate and Sustainability Group
- **Paul Reiter**, Executive Director, International Water Association, Den Haag, Netherlands

- **Robert Skinner**, former Managing Director, Melbourne Water, now at Monash University, Melbourne, Australia
- **Francisco Cubillo**, Deputy Director of Research, Development and Innovation, Canal de Isabel II, Expertise Committee for Droughts of the Spanish Ministry of Environment and Water, Madrid, Spain
- **Alvin Bautista, P.E.**, Senior Executive Engineer, Los Angeles Department of Water & Power
- **Jim Fiedler, P.E.**, Chief Operating Officer, Santa Clara Valley Water District
- **Terry Erlewine, P.E.**, General Manager, State Water Contractors

3:00 Break

3:15 Moderated Question & Answers

3:45 Summarizations by Panelists

4:15 Concluding Remarks and White Paper Notation for the Governor's Office
Robert Shibatani, Vice Chair, EWRI Sacramento

4:30 Closes Symposium
Pal Hegedus, Chair, EWRI Sacramento

Adjourn to Networking Reception at the Sheraton jointly with WateReuse.



Sacramento Chapter
**ENVIRONMENTAL &
WATER RESOURCES
INSTITUTE**

REGISTRATION

Registration includes continental breakfast, breaks, keynote luncheon, and reception after the Symposium.

ATTENDEE REGISTRATION

Attendees

\$125.00

Student

\$45.00

PLATINUM SPONSOR

\$750.00

Sponsorship package includes full page ad, **two** registrations and on the onsite display, and table top exhibit space (backdrops permitted).

EXHIBITOR

\$500.00

Exhibitor package includes **one** registration, listing in program and on the onsite display, and table top exhibit space (backdrops permitted).

SPONSOR

\$250.00

Listing in program and on the onsite display

INSTRUCTIONS

PLEASE CIRCLE THE TYPE OF REGISTRATION(S) ABOVE. USE ONE FORM PER REGISTRANT. Please make checks payable to: **SC/EWRI – 2012 Symposium**. Send this FORM to Pal Hegedus, Chair, EWRI/Sacramento at RBF Consulting, 4540 Duckhorn Drive, Suite 202, Sacramento, California 95834-2597.

Attendee Student (ID required at registration)

Name: _____

Title (as you want it to appear on your badge): _____

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In order to keep our fee low, we are not able to accept credit card payments.