



California Water and Environmental Modeling Forum

2006 Annual Meeting Agenda

“Modeling for Integrated Regional Water Management”



February 28-March 2, 2006

Asilomar Conference Grounds
800 Asilomar Boulevard
Pacific Grove, California



California Water and Environmental Modeling Forum 2006 Annual Meeting Summary of Sessions

Tuesday, February 28, 2006

Time	Session	Moderator	Location
10:15 am-12:00 pm	1: Shared Vision Modeling and Modeling for CA Water	Rich Juricich	Fred Farr
	2: Delta Hydrodynamics and Modeling	KT Shum	Oak Shelter
12:00-1:00 pm	Lunch	---	Dining Hall
1:15-3:00 pm	3: Improving Quantitative Information for the CA Water Plan	Rich Juricich	Fred Farr
	4: 2005 DSM2 Developments and Applications	P. Nader-Tehrani	Oak Shelter
	5: Real-Time Data Acquisition and Forecasting	Marianne Guerin	Sanderling
3:00-4:00 pm	Registration	---	Social Hall
4:15-6:00 pm	6: CALFED Common Assumptions Modeling	Rob Leaf	Fred Farr
	7: Climate Change Modeling I	Francis Chung	Oak Shelter
	8: North State Integrated Regional Water Management	Dwight Russell	Sanderling
6:00-7:00 pm	Dinner	---	Dining Hall
7:00-10:00 pm	9: Reception I and Poster Session	Mike Deas	Fred Farr
7:45-8:30 pm	Hugo B. Fischer Award/Presentations by Recipients	Nigel Quinn	
8:30-9:30 pm	Keynote Speaker: "Santa Ana Watershed Integrated Regional Water Management," Joe Grindstaff		

Wednesday, March 1, 2006

Time	Session	Moderator	Location
7:30-8:15 am	Breakfast	---	Dining Hall
8:15-9:00 am	10: CWEMF Activities / Annual Business Meeting	KT Shum	Fred Farr
9:00-10:00 am	Review of CWEMF's Peer Review Process		
10:15 am-12:00 pm	11: Recent Advances in Model Integration I	Tara Smith	Fred Farr
	12: Climate Change Modeling II	Jamie Anderson	Oak Shelter
	13: Salton Sea Modeling	Armin Munevar	Sanderling
12:00-1:00 pm	Lunch	---	Dining Hall
1:00-2:00 pm	14: Water Community Program Updates	Fred Feyrer	Chapel
2:00-4:15 pm	15: IEP / CWEMF Joint Modeling Session	Steve Slater	Chapel
4:15-5:00 pm	Registration	---	Social Hall
4:15-6:00 pm	16: Temperature Modeling and Applications	Mike Deas	Chapel
	17: Recent Advances in Model Integration II	Marianne Guerin	Oak Shelter
	18: Southern CA Integrated Resources Planning	Chuching Wang	Sanderling
6:00-7:00 pm	Dinner	---	Dining Hall
6:30-7:00 pm	19: Career Achievement Award/Presentation by Recipient	KT Shum	Dining Hall
7:00-9:00 pm	20: Reception II and Featured Speaker: "Glen Canyon Adaptive Management Program," Ted Melis	IEP Rep	Chapel

Thursday, March 2, 2006

Time	Session	Moderator	Location
7:30-8:15 am	Breakfast	---	Dining Hall
8:15-10:00 am	21: CA Long-Term Modeling SAF – USCOE HEC-WAT	Rob Tull	Oak Shelter
	22: Water Quality Data Assessments	Lisa Holm	Sanderling
10:15 am-12:00 pm	23: 2005 CalSim-II Developments and Applications I	Sushil Arora	Oak Shelter
	24: Flood Control Modeling	John Headlee	Sanderling
12:00-1:00 pm	Lunch / Check-Out	---	Dining Hall
1:15-3:00 pm	25: 2005 CalSim-II Developments and Applications II	Randi Field	Oak Shelter
	26: 2005 IWFM/C2VSIM Enhancements and Applications	Tariq Kadir	Sanderling

Note: Please see page 14 for a summary of the Interagency Ecological Program's March 2-3, 2006 sessions.



2006 Annual Meeting Agenda

Version Date:
February 24, 2006

10:15 a.m.-12:00 p.m.

Note: Registration begins at 3:00 p.m. in the Social Hall.

Session One: Shared Vision Modeling and Modeling for California Water Management

Moderator: Rich Juricich (CA DWR)

Location: Fred Farr Forum

Collaborative Modeling for Water Resources Planning – the Shared Vision Planning Approach, Hal Cardwell (USCOE Institute for Water Resources)

Application of Shared Vision Planning for Lake Ontario Water Regulation, Mark Lorie (USCOE Institute for Water Resources)

Using HEC Tools to Support Shared Vision Planning, Beth Faber (USCOE Hydrologic Engineering Center) and Hal Cardwell (USCOE Institute for Water Resources)

Applying Shared Vision Planning to Identify the Conceptual Design of Water Demands, Rich Juricich (CA DWR)

Session Two: Delta Hydrodynamics and Modeling

Moderator: KT Shum (EBMUD)

Location: Oak Shelter

Flow Monitoring in the Sacramento Deep Water Ship Channel, Shawn Mayr (CA DWR)

Modeling the Big Gulp: What Might Happen if 50 Delta Levee Breaches Occurred Simultaneously, John DeGeorge (RMA)

Simulations of Periodic Stratification and Dispersive Salt Transport in San Francisco Bay, Edward Gross (Environmental Consultant)

Some Modeling Issues of the Delta, KT Shum (EBMUD)

12:00-1:00 p.m. — Lunch

Note: Tuesday lunch is not included in the lodging or registration fees, but can be obtained from a CWEMF representative or purchased separately in the Social Hall at the registration counter.



1:15-3:00 p.m.

Session Three: Improving Quantitative Information for the California Water Plan

Moderator: Rich Juricich (CA DWR)
Location: Fred Farr Forum



Overview: Improving Quantitative Information for the California Water Plan, Rich Juricich (CA DWR)

Water Portfolio Refinement and Coordination with WEAP and CALSIM Studies, Todd Hillaire (CA DWR, No. District)

Rethinking Water Policy Opportunities in Southern California – A Project Update, David Groves (RAND/Evolving Logic) and Robert Wilkinson (UC Santa Barbara)

Disaggregation of Water Management Detail in a Model of the Sacramento Valley, Brian Joyce and David Purkey (NHI)

Session Four: 2005 DSM2 Developments and Applications

Moderator: Parviz Nader-Tehrani (CA DWR)
Location: Oak Shelter

Modeling of South Delta Gates, Kyle Winslow (CH2M Hill)

Adaptive Management of Flow through Three Mile Slough to Improve Delta Water Quality (DSM2 Modeling Experiments), Bijaya Shrestha and Parviz Nader-Tehrani (CA DWR)

Sensitivity of the DSM2 Temperature Model to Time Step Size, Hari Rajbhandari (CA DWR)

Validation of DSM2 Volumetric Fingerprints Using Grab Sample Mineral Data, Paul Hutton (MWDSC)



Session Five: Real-Time Data Acquisition and Forecasting

Moderator: Marianne Guerin (CCWD)
Location: Sanderling

Innovations and Lessons Learned: Real-Time Water Quality Monitoring and Management in Seasonal Wetlands, Nigel Quinn (LBNL / USBR)

The DWR Real-Time Data and Forecasting (RTDF) Program, Ted Swift (CA DWR)

RTDF: Real-Time Forecasting of Water Quality with DSM2, Kevin Sun (CA DWR)

Forecasting Delta Salinity from Outflow, Lucinda Shih (CCWD)

3:00-4:00 p.m. — Registration (Social Hall)

4:15-6:00 p.m.

Session Six: CALFED Common Assumptions Modeling

Moderator: Rob Leaf (CH2M Hill)

Location: Fred Farr Forum

Overview and Status of Common Assumptions, Robert Leaf (CH2M Hill)

Characterization and Quantification of CALFED Water Management Actions, Brian Van Lienden, (CH2M Hill)

LCPSIM Update for Plan Formulation, Ray Hoagland (CA DWR)

Session Seven: Climate Change Modeling I

Moderator: Francis Chung (CA DWR)

Location: Oak Shelter



Climate Change Impacts on the State Water Project and Central Valley Project, Dan Easton (CA DWR)

Climate Change Impacts on the Sacramento-San Joaquin Delta, Jamie Anderson (CA DWR)

Flood/Water Supply Forecasting with Climate Change, Michael Anderson (CA DWR)

Climate Change Impacts on Water for Agriculture in California: A Case Study in the Sacramento Valley, Brian Joyce and David Purkey (NHI) and Sebastian Vicuña (UC Berkeley)

Session Eight: North State Integrated Regional Water Management — Or — Are Your Model Input and Results Defensible?

Moderator: Dwight Russell (CA DWR, No. District)

Location: Sanderling

Do You Know What You Are Doing? — Or — Calculating Land Use and Water Balances, Tito Cervantes and Patrick Parsons (CA DWR, No. District)

Are DWR and DFG Working Together? — Or — Diversion Control To Assist Fishery Recovery Efforts within the Scott and Shasta River Watersheds, John P. Clements and Joe Scott (CA DWR, No. District)

What Can You Do With Experience? — Or — Obtaining a 2-Dimensional Hydraulic Modeling Solution Using 1-Dimensional Modeling Techniques, Patricia Huckabay (CA DWR, No. District)

6:00-7:00 p.m. — Dinner

7:00-10:00 p.m.

Session Nine: Evening Program

Moderator: Nigel Quinn (LBNL / USBR)
Location: Fred Farr Forum



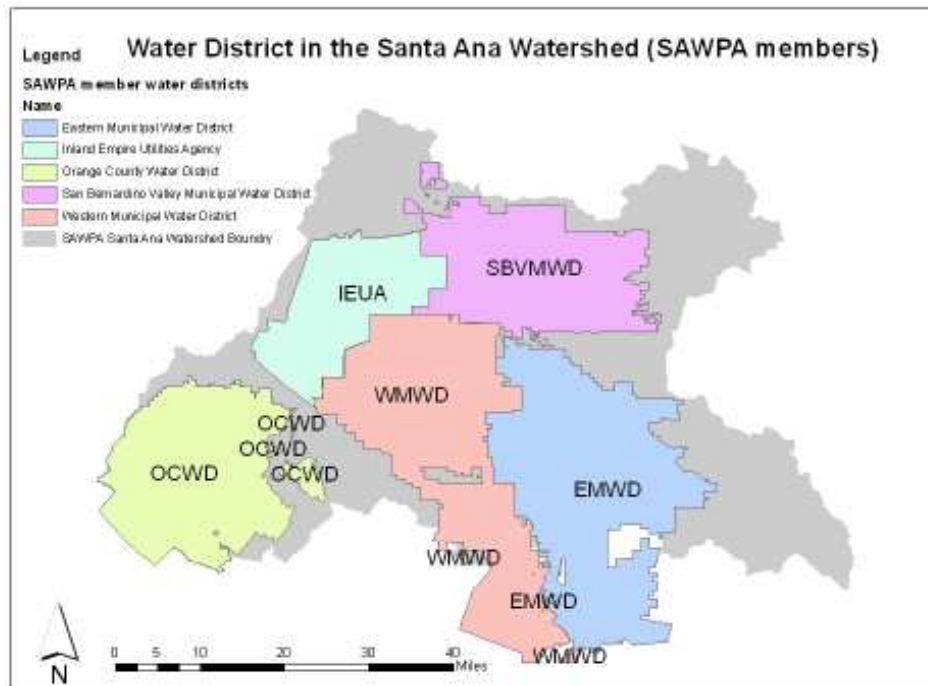
7:00-10:00 p.m. Reception I and Poster Session

Reception sponsored by CWEMF and CH2M Hill.
Poster session sponsored by Watercourse Engineering.
(See pages 13 and 14 for poster session titles.)

7:45-8:30 p.m. Presentation of the Hugo B. Fischer Award and Remarks by the Award Recipients

8:30-9:30 p.m. Keynote Speaker: Joe Grindstaff (California Bay-Delta Authority Director / Former General Manager, Santa Ana Watershed Project Authority)

Santa Ana Watershed Regional Water Management



7:30-8:15 a.m. — Breakfast

8:15-10:00 a.m.

Session Ten: CWEMF Activities / Annual Business Meeting / Peer Review Process Review

Moderator: KT Shum (CWEMF Convener / EBMUD)

Location: Fred Farr Forum

- 8:15 The Year In Review — KT Shum
- 8:25 Report on CWEMF Model User Groups — Nigel Quinn (Past-Convener/LBNL/USBR)
- 8:30 Report on CWEMF Workshops — Tara Smith (Vice-Convener/CA DWR)
- 8:35 Executive Director's Report — Rich Satkowski (CWEMF)
- 8:45 Annual Business Meeting — KT Shum
 - Declaration of a Quorum
 - Business Reports
 - Officer Elections
 - 2006 CWEMF Activities
 - Other Business
- 9:00 Review of CWEMF's Peer Review Process — All



10:15 a.m.-12:00 p.m.

Session Eleven: Recent Advances in Model Integration I

Moderator: Tara Smith (CA DWR)

Location: Fred Farr Forum

- MIKE SHE – A Generalized Integrated Hydrological Modeling System, Jesper Kjelds (DHI)
- Conceptual Design of CalSim Model Suite (CMS), Hongbing Yin (CA DWR)
- Recent and Ongoing Enhancements to Reclamation's HydroGeoSphere Model, George Matanga (USBR)

Session Twelve: Climate Change Modeling II

Moderator: Jamie Anderson (CA DWR)

Location: Oak Shelter

- Anticipating Future Climate Change Impacts on California Mountain Hydrology, Ed Maurer (Santa Clara University)
- Extreme Drought and Water Supply Management in California, Jay Lund (UC Davis)
- Climate-Change Probabilities, Impact Probabilities, and the Impact-Model Bottleneck, Mike Dettinger (USGS-Scripps)
- Assessing the Risks of Shifting Climate on Water and Power Operations, Levi Brekke (USBR)

10:15 a.m.-12:00 p.m. — Continued

Session Thirteen: Salton Sea Modeling

Moderator: Armin Munevar (CH2M Hill)

Location: Sanderling

Salton Sea Ecosystem Restoration Program, Doug Osugi (CA DWR)

Closed-Basin Hydrologic Modeling with Uncertainty, Armin Munevar (CH2M Hill)

3-D Temperature and Circulation Modeling for the Salton Sea, Geoff Schladow (UC Davis)

Stratification-Water Quality Relationships in a Terminal Lake, Kyle Winslow (CH2M Hill)

12:00-1:00 p.m. — Lunch

1:00-2:00 p.m.

Session Fourteen: Water Community Program Updates

Moderator: Fred Feyrer (CA DWR)

Location: Chapel



Welcome and IEP Update, Chuck Armor (CA DFG)

CWEMF Update, KT Shum (CWEMF Convener/EBMUD)

CALFED Science Program Update, Lauren Hastings (CBDA)

2:00-4:15 p.m.

Session Fifteen: IEP / CWEMF Joint Modeling Session

Moderator: Steve Slater (CA DFG)

Location: Chapel

Three-Dimensional Simulations of Flow in the Vicinity of the Delta Cross Channel, Bassam Younis (UC Davis)

Progress on Incorporating Climate Change into Management of California's Water Resources, Francis Chung (CA DWR)

San Joaquin River Valley CalSim-II Peer Review, Jay Lund (UC Davis)

Predation Losses of Steelhead in Clifton Court Forebay: Results of 2005/2006 Pilot Studies, Chuck Hanson (Hanson Environmental)

South Delta Fish Studies: Do Our Fishes Have Behavioral Problems?, Lenny Grimaldo (CA DWR)

Spatial and Temporal Variation in Life History Traits of Age-0 Splittail in Tributaries of San Francisco Bay, Fred Feyrer (CA DWR)

4:00-5:00 p.m. — Registration (Social Hall)

4:15-6:00 p.m.

Session Sixteen: Temperature Modeling and Applications

Moderator: Mike Deas (WaterCourse Engineering)

Location: Chapel

Multi-Objective Optimization of Folsom Reservoir Operation, Randi Field (USBR)

Temperature Modeling for Two Reservoirs in Series on the Mokelumne River,
Rachel Simons (EBMUD)

Modeling of Water Temperature and Total Dissolved Gas in the Snake River below the
Hells Canyon Dam, Idaho, Jesper Kjelds (DHI)

Basin Scale Flow and Temperature Modeling in the Klamath River,
Oregon and California, Mike Deas (Watercourse Engineering)

Session Seventeen: Recent Advances in Model Integration II

Moderator: Marianne Guerin (CCWD)

Location: Oak Shelter

Population Modeling for Delta Smelt, Wim Kimmerer (SFSU)

Decision Solution Model for the U.S. Fish and Wildlife Service's Water
Acquisition Program, Dick Jewell (USFWS) and Allan Highstreet (CH2M Hill)

Procedures for Conjunctive Management Analyses in the Upper Snake River Basin,
Leslie Stillwater (USBR)

Session Eighteen: Southern California Integrated Resources Planning

Moderator: Chuching Wang (MWDSC)

Location: Sanderling

City of Los Angeles Water and Wastewater IRP,
Adel Hagekhalil (LA Dept. of Public Works)

MWD's IRP Update and Water Quality IRP,
Lynda Smith and Chuching Wang (MWDSC)

Innovative Water Conservation,
Tim Blair (MWDSC)



6:00-7:00 p.m. — Dinner (Woodlands Room)

6:30-7:00 p.m.

Session Nineteen: Career Achievement Award / Remarks by Recipient

Moderator: KT Shum (CWEMF Convener/EBMUD)
Location: Dining Hall (Woodlands Room)



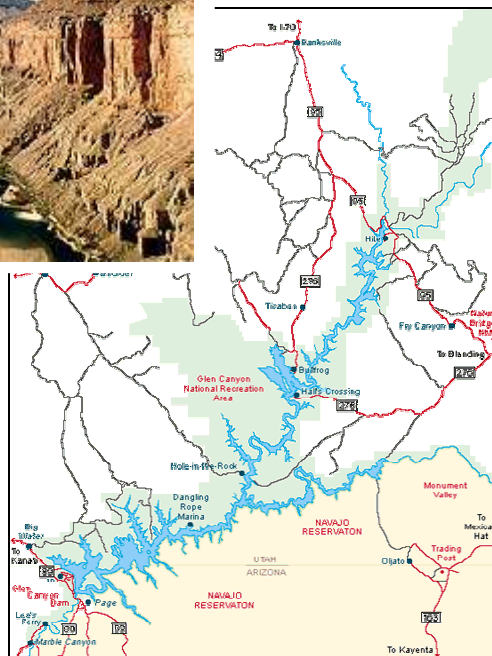
7:00-9:00 p.m.

Session Twenty: Reception and Featured Speaker

Moderator: IEP Representative
Location: Chapel

Featured Speaker: Ted Melis (Acting Chief of the USGS Grand Canyon Research and Monitoring Center)

Glen Canyon Adaptive Management Program



7:30-8:15 a.m. — Breakfast

8:15-10:00 a.m.

Session Twenty-One: California's Long-Term Modeling Strategic Analysis Framework – USCOE's Watershed Analysis Tool (HEC-WAT)

Moderator: Rob Tull (CH2M Hill)

Location: Oak Shelter

Overview of the CWEMF's Strategic Analysis Framework Process,
Rob Tull (CH2M Hill)

Model Integration and Coordination with the Watershed Analysis Tool (HEC-WAT),
William J. Charley (USCOE Hydrologic Engineering Center)

HEC-Watershed Analysis Tool: Development of a Common Watershed Schematic and
Plug-in Application Architecture, John DeGeorge (RMA)

Open Discussion, All

Session Twenty-Two: Water Quality Data Assessments

Moderator: Lisa Holm (CBDA)

Location: Sanderling

Organic Carbon Sources in the Central Valley: What We Know and What
We Don't Know, Elaine Archibald (Archibald & Wallberg Consultants)

The National Water Quality Assessment (NAWQA) Program of the USGS: Changes in
Direction and Focus for the Second Decade of Investigations, Joe Domagalski (USGS)

Use of Statewide Probabilistic Surveys to Evaluate Stream Condition, Emilie Reyes (SWRCB)



10:15 a.m.-12:00 p.m.

Session Twenty-Three: 2005 CalSim-II Developments and Applications I

Moderator: Sushil Arora (CA DWR)

Location: Oak Shelter

Enhancements to CalSim Representation of the Colusa Basin and Sacramento River from
Red Bluff to Wilkins Slough, Walter Bourez (MBK Engineers)

Automated Weight Generation Procedure for CalSim-II, Ines Ferreira (UC Davis)

Updated Artificial Neural Network Development for CalSim-II, Shengjun Wu (CA DWR)

DETAW: A SIMETAW-Based Model to Estimate Consumptive Water Demands in the
Sacramento – San Joaquin Delta, Tariq Kadir (CA DWR), Richard Snyder (UC Davis) and
Morteza Orang (CA DWR)

CalSim-II Hydrological Data Extension of Recent Historical Period, Messele Ejeta (CA DWR)

10:15 a.m.-12:00 p.m. — Continued

Session Twenty-Four: Flood Control Modeling

Moderator: John Headlee (USCOE)

Location: Sanderling

Real-Time Flood Control Modeling With CWMS, the Corps Water Management System, William Charley (USCOE)

Where, When and How High Modeling by DWR's Division of Flood Management, Michael Anderson (CA DWR)

Salinity Impacts Resulting from Multiple, Seismically-Induced Levee Failures, Sergio Guillen (CA DWR)



12:00-1:00 p.m. — Lunch / Check-Out

1:15-3:00 p.m.

Session Twenty-Five: 2005 CalSim-II Developments and Applications II

Moderator: Randi Field (USBR)

Location: Oak Shelter

The CalSim Roadmap, Lloyd Peterson (USBR)

Sensitivity and Uncertainty Analysis of the CalSim-II San Joaquin River Representation, Levi Brekke and Nancy Parker (USBR)

A Daily Time-Step Planning and Operations Model of the American River Watershed, Brian Van Lienden (CH2M Hill)

Water Resources Integrated Modeling System (WRIMS) Status, Ryan Wilbur (CA DWR)

Session Twenty-Six: 2005 IWFm and C2VSIM (formerly IGSM2 and CVGSM2) Enhancements and Applications

Moderator: Tariq Kadir (CA DWR)

Location: Sanderling

Updates on IWFm Enhancements, C2VSIM Calibration, and Their Use in CalSim-III, Tariq Kadir (CA DWR)

A GIS-Based GUI for IWFm, Tom Heinzer and Diane Williams (USBR)

Update on C2VSIM Calibration Effort, Dan Wendell, Steve Shultz, Peter Lawson (CH2M Hill)

Integration of Groundwater Unit Response Functions into CalSim-II, David Purkey, Brian Joyce and Chuck Young (NHI)



2006 Annual Meeting Poster Session Titles

Sponsored by Watercourse Engineering

Poster 1: Take the Taste Challenge, Rich Losee (MWDSC), Marianne Guerin (CCWD) and Tara Smith (CA DWR)

Poster 2: Using Particle Tracking to Indicate Delta Residence Time, Jim Wilde, Michael Mierzwa and Bob Suits (CA DWR)

Poster 3: CUP (Consumptive Use Program), Morteza N. Orang, Richard L. Snyder and J. Scott Matyac (CA DWR)

Poster 4: SIMETAW (Simulation of Evapotranspiration of Applied Water), Morteza N. Orang, Richard L. Snyder and J. Scott Matyac (CA DWR)

Poster 5: Mono Basin Operations Model, Stacy Tanaka (Watercourse Engineering), Mark Hanna (LA Dept. of Water and Power), Sarah Null and Mike Deas (Watercourse Engineering)

Poster 6: Benefits of Multiple Conservative Water Quality Constituents in Historical and Forecast Simulations, Michael Mierzwa, Jim Wilde and Bob Suits (CA DWR)

Poster 7: Progress on Incorporating Climate Change into Management of California's Water Resources, Jamie Anderson (DWR)

Poster 8: Modeling Topographic Shading for Temperature Modeling, Michael L. Deas (Watercourse Engineering), Josh Viers and Nate Roth (ICE, UC Davis)

Poster 9: Water Quality 1A, George Nichol (SWRCB)

Poster 10: Using DSM2 for Rapid Feasibility Assessment of Responses to Massive Island Inundation, Tawnly Pranger (CA DWR)

Poster 11: Climate Change Impacts on High Elevation Hydropower Generation in California's Sierra Nevada: A Case Study in the Upper American River, Sebastian Vicuna, Rebecca Leonardson, John A. Dracup, Michael Hanemann (UC Berkeley) and Larry Dale (LBNL)

Poster 12: Hydrologic Impact Analysis using Refined and Updated Integrated Groundwater and Surface Water Model, Ali Taghavi, (WRIME), James McCormack (Sacramento City and County), Robert Caikoski (Co. of Sacramento), John Coppola (Sac Co. WA) and Chris Smith and Yiguo Liang (WRIME)

**California Water and Environmental Modeling Forum
Poster Session: Tuesday, February 28, 2006**

Poster 13: Environmental Data Management, Saquib Najmus and Donghai Wang (WRIME)

Poster 14: A Regional Groundwater Model for the Butte Basin, R. Paul Hossain, Brian J. Heywood and Robert H. Fitzgerald (CDM)

Poster 15: Winter Chinook Modeling: Insights into What is Driving Population Trends, Steve Cramer (S.P. Cramer & Associates) and Rick Sitts (MWDSC)

Poster 16: Austin Nelson, 1936-2005, CWEMF



Important Telephone Numbers

Asilomar Conference Center – (831) 372-8016

Rich Satkowski – (916) 607-0435 (cell)

KT Shum – (925) 336-1228 (cell)



Interagency Ecological Program, March 2-3, 2006 Sessions

Date	Time	Session	Moderator	Location
Thursday March 2, 2006	8:15-10:00 am	Pelagic Organism Decline I – Introduction	Mike Chotkowski	Chapel
	10:20 am-12:00 pm	Pelagic Organism Decline II – Toxics & Invasive Species Effects	Rich Breuer	Chapel
	1:00-2:20 pm	Pelagic Organism Decline III – Operations and Flows Effects	Ted Sommer	Chapel
	2:40-3:30 pm	Pelagic Organism Decline IV – The Big Picture	Bruce Herbold	Chapel
	7:00-9:00 pm	Reception and Poster Session	IEP Representative	Fred Farr
Friday March 3, 2006	8:15-10:00 am	Recent Advances in Delta Hydrodynamics and Implications	Lisa Lucas	Chapel
	10:20 am-12:10 pm	Anadromous Fishes	Bruce Oppenheim	Chapel
	10:20 am-12:10 pm	Habitat Management, Preservation and Restoration Planfor Suisun Marsh	Barbara McDonnell	Fred Farr