

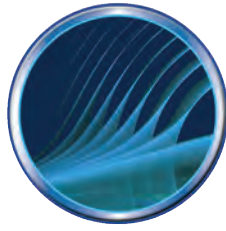
FLOODPLAIN MANAGEMENT ASSOCIATION
ANNUAL CONFERENCE

Flood Risk Management in the 21st Century

September 6-9, 2011

San Diego, California





FMA ANNUAL CONFERENCE

Flood Risk Management in the 21st Century

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Conference Co-Chairs

Gary Hildebrand, P.E., Assistant Deputy Director
County of Los Angeles Department of Public Works

Cid Tesoro, P.E., Program Manager
San Diego County Department of Public Works

Conference Committee

(in alphabetical order)

Sara Agahi, County of San Diego

Danielle Aslam, County of Los Angeles

Jamal Batta, City of San Diego

Bob Battalio, Philip Williams & Associates

Chris Bowles, cbec, inc. eco engineering

Dennis Bowling, Rick Engineering

Elizabeth Chopp, City of Chula Vista

Eric Clyde, MWH Global

Mark Connelly, AECOM

Kim Davis, Nevada DWR

George De La O, County of Los Angeles

Angela George, County of Los Angeles

Vince Geronimo, AECOM

Terri Grant, County of Los Angeles

Pal Hegedus, RBF Consulting

Sharon Humphreys, Bureau Veritas North America, Inc.

Dale Kerper, DHI Water & Environment

Maria Lorenzo-Lee, California DWR

Richard Lucera, RBF Consulting

Allen Ma, County of Los Angeles

Steven Mano, HDR Engineering, Inc.

Michael Nowlan, Wood Rodgers, Inc.

Ricardo Pineda, California DWR

Cait Plantaric, California DWR

Thomas Plummer, Civil Engineering Solutions, Inc.

Ric Reinhardt, MBK Engineers

Jeanne Ruefer, Accenture

Mark Seits, HDR Engineering, Inc.

Eric Simmons, DHS/FEMA Region IX

Judy Soutiere, USACE, Sacramento District

Martin Teal, WEST Consultants

Andrew Trelease, Regional Flood Control District

J. Uhley, Riverside County RFCD

Tory Walker, Tory Walker Engineering

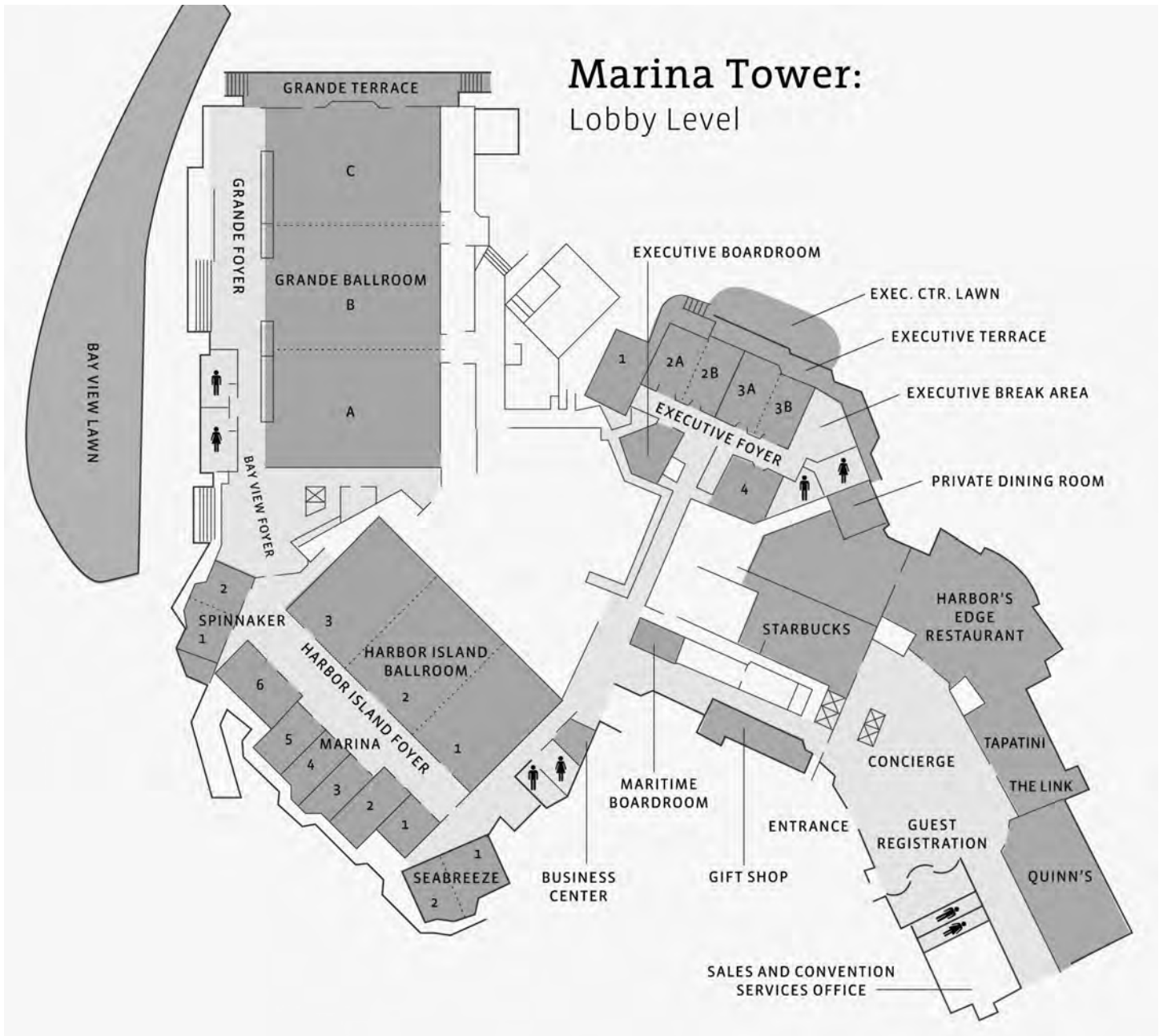
Alex Yescas, PBS&J/Atkins

Conference Director

Iovanka Todt, Floodplain Management Association

Conference Center Floorplan

Sheraton San Diego Hotel & Marina
 1380 Harbor Island Drive San Diego, CA 92101



Tuesday, September 6, 2011

Time	Workshop / Event
7:30 – 5:45	Registration
7:30 – 8:30	Continental Breakfast
8:30 – 10:00	Coastal Construction Workshop – Sara Owen, FEMA Region IX
8:30 – 12:30	Concurrent Workshops USACE Flood Risk Communications Essentials: What People Know About Flood Risk and What We Can Do About It Two-Dimensional Flow Analysis – Technical and Regulatory Forum The Latest DFIRM & LOMC/PMR Submission Requirements Now That Risk Map Is Here
8:30 – 5:30	Full Day Workshop SCCWRP/CSU Hydromodification Screening Tool – Workshop and Field Practice (includes lunch) FEMA’s Community Rating System (CRS) – By appointment, call David Arkens at (702) 354-4674 or dmarkens@iso.com prior to the conference to reserve a time.
9:00 – 4:00	Full Day Workshop CFM Refresher Course
10:30 – 5:30	Workshop The Flood Provisions of the 2009 International Code Series
12:30 – 1:30	Workshop Marketing Workshop for Private Sector Firms – Getting the most out of exhibiting at the FMA Conference
1:30 – 5:30	Concurrent Workshops Public Involvement Workshop: Effective Stakeholder Engagement and Improved Decision Processes with Shared Vision Planning: A Tool for You? FEMA Short Listening Sessions with Communities – by appointment Fundamentals of Flood Insurance
4:30 – 5:30	Special Session Special Session with the Corps of Engineers – Open to all!
5:30 – 7:00	Exhibit Hall Opening (No Host Bar)

Wednesday, September 7, 2011

Time	Workshop / Event
7:00 – 5:00	Registration
7:00 – 8:30	Continental Breakfast in Exhibit Hall
8:30 – 10:00	Plenary Welcome, Introduction, Keynote All day, by appointment – FEMA’s Community Rating System (CRS)
10:00 – 10:30	Break – Exhibit Hall
10:30 – 12:00	Moderated Panel with Q&A: Emerging Issues in Flood Risk Management

CONCURRENT TECHNICAL SESSIONS (Wednesday Morning)

10:30 – 12:00	Hydrologic Modeling I Levees – Certification and Mapping Floodproofing Flood Warning, Preparedness and Multi-Hazard Assessment Coastal Flood Risk Modeling and Mapping I Alluvial Fan Flood Hazard Assessment I Advanced Modeling Techniques I
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12:30 – 2:00 Keynote Luncheon and Awards

2:15 – 3:45 Flood Policy Session: Toward Regional, Risk-Based Flood Management in California – A Public Policy Forum

Panel Discussion: Riparian Lands – The Role of Plants in Floodplain Value and Flood Risk Reduction

CONCURRENT TECHNICAL SESSIONS (Wednesday Afternoon)

2:15 – 3:45	Hydrologic Modeling II Levees – Criteria for Flood Protection GIS for Flood Risk Modeling and Master Planning I Coastal Flood Risk Modeling and Mapping II Alluvial Fan Flood Hazard Assessment II Advanced Modeling Techniques II
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3:45 – 4:15 Break – Exhibit Hall

4:15 – 5:45 Panel Discussion: System Reoperation – The Promise and the Perils

FEMA Mock Discovery Session

Wednesday, September 7, 2011 *(continued)*

Time	Workshop / Event
	Overview of Flood Risk Management Activities in California's Central Valley
CONCURRENT TECHNICAL SESSIONS (Wed. Late Afternoon)	
4:15 – 5:45	Hydrologic Modeling III GIS for Flood Risk Modeling and Master Planning II Coastal Erosion, Sea Level Rise and Adaptation Flood Risk and the California Delta Advanced Modeling Techniques III
5:45 – 7:00	Reception in Exhibit Hall – Harbor Island Ballroom (No Host Bar)

Thursday, September 8, 2011

Time	Workshop / Event
7:00 – 5:00	Registration
7:00 – 8:00	Continental Breakfast in Exhibit Hall
	FMA Breakfast Membership Meeting
8:00 – 9:00	Breakfast Session with California DWR: Putting the “F” in IWM – Leveraging IRWM for Flood Risk Management All day, by appointment – FEMA’s Community Rating System (CRS)
9:00 – 10:30	Panel Discussion: Federal and State Updates in Levee Policy and Design Criteria Panel Discussion: Sustainable Funding Strategies Through Integrated Planning
CONCURRENT TECHNICAL SESSIONS (Thursday Morning)	
9:00 – 10:30	Flood Risk Communication Toolbox Comparisons of 1D and 2D Hydraulic Modeling Approaches Sediment and Erosion: Modeling and Analysis for Arid Regions Flood Risk Planning: Case Studies and Lessons Learned I Risk MAP and Flood Hazard Mapping Floodplain Restoration – Alternative Evaluation
10:30 – 11:00	Break – Exhibit Hall
11:00 – 12:30	Panel Discussion: The Levee Challenge – Local Perspectives Panel Discussion: Sediment Management – Impacts and Options
CONCURRENT TECHNICAL SESSIONS (Thurs. Late Morning)	
11:00 – 12:30	Success Stories in Flood Risk Communication 2-D Hydraulic Modeling: Trends and Applications I Hydromodification Management Flood Risk Planning: Case Studies and Lessons Learned II Effects of Subsidence on Flood Risk Floodplain Restoration Success Stories
12:30 – 2:00	Buffet Lunch in Exhibit Hall

Thursday, September 8, 2011 *(continued)*

Time	Workshop / Event
2:00 – 5:30	Panel Discussion: The Perfect Coastal Storm – Unlocking the West Coast Flood Risk Mystery and Exploring the Policy and Planning Implications

CONCURRENT TECHNICAL SESSIONS (Thursday Afternoon)

2:00 – 3:30

- Levees – Geotechnical Evaluation and Seepage Mitigation
- 2-D Hydraulic Modeling: Trends and Applications II
- Financing Local Flood and Stormwater Programs
- Innovative Strategies in Flood Risk Planning I
- Dam Failure and Flood Risk: Mapping and Data Sets
- Vegetation and Ecosystem Management

3:30 – 4:00 **Break – Exhibit Hall**

4:00 **Exhibit Hall Closes**

4:00 – 5:30 **Panel Discussion – Central Valley Flood Protection Plan: Evaluation Methods And Performance Matrix**

CONCURRENT TECHNICAL SESSIONS (Thurs. Late Afternoon)

4:00 – 5:30

- Levees – Managing Vegetation
- 2-D Hydraulic Modeling: Trends and Applications III
- Local Revenue Strategies for Flood Risk Financing
- Innovative Strategies in Flood Risk Planning II
- Dam Failure Modeling and Operational Issues
- Sediment Transport and Erosion Below Dams

5:30 – 7:30 **San Diego Tropical Reception –**

Friday, September 9, 2011

Time	Workshop / Event
8:00 – 10:00	Registration
8:00 – 9:00	Continental Breakfast
8:30 – 12:30	CFM EXAM
9:00 – 2:00	Field Trip: Award Winning Tijuana River Valley Project

CONCURRENT TECHNICAL SESSIONS (Friday Morning)

8:30 – 10:00

- Flood Mapping Technologies and Applications I
- Strategies for Reducing Flood Risk in the Central Valley I
- Stormwater Management

10:00 – 10:15 **Coffee**

CONCURRENT TECHNICAL SESSIONS (Friday Late Afternoon)

10:15 – 11:45

- Flood Mapping Technologies and Applications II
- Strategies for Reducing Flood Risk in the Central Valley II
- Flood Hazard Regulatory Issues and Perspectives

12:00 **Conclusion of 2011 FMA Annual Conference – See you next year in Sacramento!**



The 2011 FMA Annual Conference includes a field trip to the Tijuana River Valley, on Friday, September 9. *Photo courtesy of Rick Engineering*



Conference Program

Tuesday, September 6, 2011

****Special Announcement****

FEMA's Community Rating System (CRS)

During the conference this year, interested communities will be given an opportunity to learn more about FEMA's CRS Program. You may schedule a one-on-one session to learn how it applies to your community; discuss issues relevant to you and how you can save your residents money. If you would like to know more about the CRS Program, join the CRS or improve your existing CRS classification, contact Dave Arkens, Insurance Services Office, Inc. at (702) 354-4674 or dmarkens@iso.com prior to the conference to reserve a time.

Time	Workshop / Event
7:30 – 5:45	REGISTRATION
7:30 – 8:30	CONTINENTAL BREAKFAST
8:30 – 10:00	<p>WORKSHOP</p> <p>Coastal Construction Workshop. Instructor: Sarah Owen, FEMA Region IX. The Coastal Construction workshop is a broad overview of NFIP, coastal construction regulations, coastal mapping, and flood insurance in coastal zones (Zones V or VE). This workshop does not go into detail about the technical construction methods in the coastal zones.</p>
8:30 – 12:30	<p>CONCURRENT WORKSHOPS</p> <p>Flood Risk Communication Essentials: What people know about flood risk and what we can do about it? Instructors: Torrie McAllister, Strategic Communications Chief, USACE South Pacific Division and Kathy Schaefer, FEMA Region IX, with FEMA and Partner Agencies. This session will provide an overview of how to develop and implement a communication plans for our interagency flood risk management teams including assessing audiences, determining effective methods of communication and principles for developing effective messages. This training will be informed by results from FEMA's recent public survey used to determine baseline of flood risk awareness, preferences for receipt of flood risk information, messages and delivery, and include examples from recent experience coordinating and communicating during the 2011 flood fights.</p> <p>Two-Dimensional Flow Analysis – Technical and Regulatory Forum. This session offers an overview on the application of 2-D modeling in floodplain mapping. Join Ed Curtis, FEMA Region IX, local agencies and technical experts in this interactive discussion designed to cover the basics and answer key questions by local agencies and communities.</p>

8:30 – 12:30 **CONCURRENT WORKSHOPS** *(continued)*

The Latest DFIRM & LOMC/PMR Submission Requirements Now That Risk Map Is Here. Instructors: Alex Haptemariam, PE, CFM, Sr. Project Manager, Greenhorne & O'Mara – Michael Gilliam, CFM, Sr. Project Manager, Greenhorne & O'Mara. Now that FEMA has begun the Flood Risk Mapping Assessment and Planning Phase (Risk Map), FEMA is concentrating more on working with local and State entities to assist in providing Mapping products that are more credible, with better quality, and that are more assessable by all interested parties. This workshop aims to assist communities, states, and mapping partners in preparing new DFIRM maps and Letters of Map Change (LOMC) and PMR requests, ensuring compliance with the FEMA Guidelines and Specifications and best practices and incorporating all of the latest FEMA requirements and procedures required under Risk Map.

8:30 – 5:30 **FULL DAY WORKSHOP****SCCWRP/CSU Hydromodification Screening Tool – Workshop and Field Practice (includes lunch).**

Instructors: Dr. Eric Stein, Principal Scientist – Biology Department, S. Ca. Coastal Water Research Project; Dennis Bowling R.C.E., Principal, Rick Engineering Company; Andrew Collison, Ph.D., Fluvial Team Director, ESA PWA | Environmental Hydrology; Chris Bowles, Ph.D., P.E., President, Ecohydrologist, cbec, inc. Funded by the State Water Resources Control Board and the San Diego County Regional Copermittees, this tool is currently being incorporated into several hydromodification management plans required by NPDES/MS4 permits. The screening tool assists in classifying streams by likely severity of response to hydromodification. Using a simple decision tree format and observational field metrics, the tool can be applied in less than one day in the field.

FEMA's Community Rating System (CRS) – by appointment, call David Arkens at (702) 354-4674 or dmarkens@iso.com prior to the conference to reserve a time.

9:00 – 4:00 **FULL DAY WORKSHOP**

CFM Refresher Course. Instructors: Bob Durrin, CFM, NFIP Specialist, DHS/FEMA MIT-FM&I, and Salomon Miranda, California DWR. This full day workshop prepares attendees for the CFM Exam, a patented certification by the Association of State Flood Plain Managers (ASFPM) focused primarily on FEMA's National Flood Insurance Program. **IMPORTANT:** Download the CFM student manual from the conference web page prior to the class.

The CFM exam is optional and it is scheduled for Friday, Sept 9. Advanced registration with ASFPM at www.floods.org is required in order to take the exam.

10:30 – 5:30 **WORKSHOP**

The Flood Provisions of the 2009 International Code Series. Instructors: John Ingargiola, Senior Engineer, FEMA Building Science Branch and Rebecca C. Quinn, CFM, RCQuinn Consulting, Inc. Coordinator: Maria Lorenzo-Lee, California DWR. This workshop will present basic information on the flood provisions of the 2009 International Code Series (I-Codes) and ASCE 24, Flood Resistant Design and Construction, and changes to the 2012-I-Codes will be noted. Building codes in California, Hawaii, and Nevada are based on the I-Codes. The workshop also reviews community responsibilities under the National Flood Insurance Program and the importance of coordinating local floodplain management ordinances with building codes. FEMA has determined that the flood provisions of the 2006, 2009, and 2012 I-Codes are consistent with the National Flood Insurance Program requirements for buildings and structures. Participants will:

- Understand how the code provisions are consistent with the NFIP regulations
- Understand the relationship between the codes and ASCE 24
- Learn about distinctions between the codes and ASCE 24 and the NFIP regulations
- Learn the importance of coordinating the codes with local floodplain management ordinances
- Received excerpts of the flood provisions of the 2009 I-Codes, Highlights of ASCE 24, and other materials

12:30 – 1:30

WORKSHOP

Marketing Workshop for Private Sector Firms – Getting the most out of exhibiting at the FMA Conference. Instructor: Rob Weinberg, Chief Strategist, The MarketBuilding Team. Marketing Guru Rob Weinberg is joining us on the first day of the Conference to show how you can get better sales results from your time on the show floor. Don't sit alone in your exhibit booth while everyone else is gathering sales leads and doing business. Invest an hour with this dynamic, entertaining and knowledgeable public speaker to learn a few tricks of the trade you may not yet know. Bring your questions to the best hour you'll invest in to help your marketing efforts.

1:30 – 5:30

CONCURRENT WORKSHOPS

PUBLIC INVOLVEMENT WORKSHOP: Effective Stakeholder Engagement and Improved Decision Processes with Shared Vision Planning: A Tool for You? Instructors: Lisa Beutler, Executive Facilitator, California Water Plan, and Stacy M. Langsdale and Hal Cardwell, Conflict Resolution & Public Participation Center of Expertise, Institute for Water Resources, U.S. Army Corps of Engineers. Working with stakeholders is an everyday fact of life for Floodplain Managers. Collaborative Modeling for Decision Support, or specifically Shared Vision Planning (SVP) as identified by the U.S. Army Corps of Engineers, provides a structure for actively engaging stakeholders in a meaningful way. SVP is defined as a planning process centered on the development of a collaboratively built decision support model with a diverse array of stakeholders. Through a combination of activities, group discussion, and lectures, you will:

- Learn the fundamental principles of SVP (Planning steps, integrated collaboratively built model, and effective Stakeholder Engagement)
- See how to apply SVP in practice
- Get hands-on experience with SVP processes, tools, and techniques
- Evaluate how SVP could be used to support current floodplain management activities Understand the basic processes utilized
- Walk away with ideas about how you can apply this to your real work situations

FEMA Short Listening Sessions with Communities – by appointment.
Please sign up in advance at admin@floodplain.org.

Fundamentals of Flood Insurance. Ron Abbene, Executive Marketing Consultant, CFM, American Bankers Ins Co of Florida. This popular course offers attendees the opportunity to: learn the history of the National Flood Insurance Program (NFIP); complete the Standard Flood Insurance Application; understand the Elevation Certificate and its requirements; learn about the three types of flood insurance policies; review Coverages and Exclusions; learn important facts about floods and Flood Insurance.

4:30 – 5:30

SPECIAL SESSION

Special Session with the Corps of Engineers – Open to all! Come with your topics, ideas and questions in an open audience format for an interactive discussion with an outstanding panel representing the Corps of Engineers.

5:30 – 7:00

EXHIBIT HALL OPENING (No Host Bar)

7:00 – 5:00 **REGISTRATION**

7:00 – 8:30 **CONTINENTAL BREAKFAST IN EXHIBIT HALL**

8:30 – 10:00 **PLENARY**

Welcome: **Pal Hegedus**, FMA Chair

Welcome Address: San Diego Mayor **Jerry Sanders**

Conference Co-Chairs Introduction: **Iovanka Todt**, Executive Director, FMA

Keynote: **Alex Dornstauder**, Director Flood Risk Management, U.S. Army Corps of Engineers,
Flood Risk Program

All day, by appointment – FEMA's Community Rating System (CRS)

10:00 – 10:30 **BREAK – EXHIBIT HALL**

10:30 – 12:00 **MODERATED PANEL WITH Q&A: EMERGING ISSUES IN FLOOD RISK MANAGEMENT**

Federal Perspective:

Sally Ziolkowski, Mitigation Division Director, FEMA Region IX

Susan Gilson, NAFSMA

Stu Townsley, U.S. Army Corps of Engineers, San Francisco

State Perspective:

Gary Bardini, Deputy Director, Integrated Water Management, California Dept. of Water Resources

Rob Martinez, Chief of Engineering Section, Nevada Division of Water Resources

Local Perspective:

Hon. Stan Cleveland, Supervisor, Sutter County

Gary Hildebrand, Asst. Deputy Director, County of Los Angeles Dept. of Public Works

Cid Tesoro, Program Manager, San Diego County Department of Public Works

Tim Washburn, Sacramento Area Flood Control Agency

Roger Churchwell, Deputy Executive Director, San Joaquin Area Flood Control

CONCURRENT TECHNICAL SESSIONS – WEDNESDAY MORNING

10:30 – 12:00 **TECHNICAL SESSION: Hydrologic Modeling I**

SESSION CHAIR: Michael C. Nowlan, PE, CFM, Associate, Water Resources, Wood Rodgers, Inc.

Statistical Methods Used in Flood Frequency Analysis – A Discussion, Annjanette Dodd, PhD, PE,
Manhard Consulting, Ltd.

Improving Synthetic Storm Runoff Hydrographs by Adjusting Watershed Parameter Estimation Methodologies, Chen-hua Chung, PhD, PE, CFM, Wood Rodgers, Inc.

New Regional Skew for California – Implications for Flood Frequency, Nancy Barth, U.S.
Geological Survey

10:30 – 12:00 **TECHNICAL SESSION: Levees – Certification and Mapping**

SESSION CHAIR: Eric Simmons, Engineer, DHS/FEMA Region IX

Levee Certification and Mapping Update: The Tijuana River Expired PAL, Jeanne L. Finger, PE, CFM,
Project Manager, BakerAECOM, LLC, Ed Curtis, PE, CFM, Senior Engineer, FEMA Region IX

An Informative Look at Levee Accreditation in Arid Regions, Brian Rowley, PE, CFM, Associate
Project Manager, Atkins, Harshal Desai, PE, CFM, Group Manager, Atkins, Kevin Eubanks, PE, CFM,
Assistant General Manager, Clark County Regional Control District

Planning a FEMA Appeal in Ten Easy Steps, Scott Shapiro, Partner, Attorney at Law, Downey Brand LLP

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10:30 – 12:00 TECHNICAL SESSION: Floodproofing*SESSION CHAIR: Miles Safa, Senior Civil Engineer, County of San Diego***Revolutionary Flood Control**, Lou Waters, Co-Founder, Inventor, FloodBreak Automatic Floodgates, LLC, Paul Dishman, Co-Founder, VP of Sales, FloodBreak Automatic Floodgates, LLC**Dry Floodproofing in Commercial Construction in Coastal Areas: A Future Roll in Flood Mitigation**, Samuel Carlsen, Intern Architect, Gulf Coast Community Design Studio, Mississippi State University**10:30 – 12:00 TECHNICAL SESSION: Flood Warning, Preparedness and Multi-Hazard Assessment***SESSION CHAIR: Terri Wegener, California DWR***Advance Flood Warning Systems for Low Water Crossings Saves Lives and Property**, Tom Ogden, Sales Manager, High Sierra Electronics, Inc.**Chehalis, WA, Flood Warning System**, David Curtis, PhD, WEST Consultants**Flood and Hurricane Risk Assessments Using FEMA HAZUS-MH**, Melvin Spinks, PE, CFM, President, CivilTech Engineering, Inc., Annie Ding, PhD, GISP, Senior GIS Analyst, CivilTech Engineering, Inc.**10:30 – 12:00 TECHNICAL SESSION: Coastal Flood Risk Modeling and Mapping I***SESSION CHAIR: Sam Tadros, Senior Civil Engineer, County of San Diego***Combining Coincident Frequency Analysis with Risk Analysis in a Tidal Zone**, David Williams, PhD, CFM, DTW & Associates, Dan Matthies, PE, CFM, Wood Rodgers, Inc., Mike Nowlan, PE, CFM, Wood Rodgers, Inc., Rohin Saleh, PE, Alameda County Flood Control District**Coastal Hazard Study for Franklin, Wakulla and Jefferson Counties, Florida**, Allen Groover and Duncan Hastie, Dewberry**Effects of Winds, Barometric Pressure, and Delta Inflows on Tidal Residuals in North San Francisco Bay**,

Brad Hall, Northwest Hydraulic Consultants, Brian Wardman, Northwest Hydraulic Consultants, Ismail Haltas, Northwest Hydraulic Consultants, Noa Bruhis, Northwest Hydraulic Consultants, Kathleen Schaeffer, FEMA Region IX

10:30 – 12:00 TECHNICAL SESSION: Alluvial Fan Flood Hazard Assessment I*SESSION CHAIR: Rich Lucera, PE, Senior Associate, RBF Consulting***Mapping the General Distribution of Alluvial Fans and Related Deposits in Southern California – Tools and Data Available for Preliminary Assessments**, Jeremy Lancaster, California Geological Survey**Recent Advances in Alluvial Fan Flood Hazard Assessment**, Jonathan Fuller, PE, RG, PH, CFM, President, JE Fuller/Hydrology & Geomorphology, Inc.**Top 10 Reasons Why the FEMA FAN Model May Give You the Wrong Answer**, Jonathan Fuller, PE, RG, PH, CFM, President, JE Fuller/Hydrology & Geomorphology, Inc.**10:30 – 12:00 TECHNICAL SESSION: Advanced Modeling Techniques I***SESSION CHAIR: Daniel James, Senior Civil Engineer, City of Rancho Cucamonga***Use of Three Seepage Modeling Programs for Evaluation, Design and Verification of Flood Protection Alternatives Around South River Pump Station**, Rebecca Money, PE, GE, Kleinfelder**Modeling Studies of the Sandag San Dieguito Lagoon Restoration Project**, Weixia Jin, PhD, PE, Senior Engineer, Moffatt & Nichol, Chris Webb, Senior Coastal Scientist, Moffatt & Nichol, Mark Tarrall, PE, Senior Engineer, Dokken Engineering, Keith Greer, Senior Regional Planner, San Diego Association of Governments**Effect of Area and Width Reduction Factors (ARFs and WRFs) on FLO-2D Result**, Tom Molls, PhD, PE, Senior Hydrologic Engineer, David Ford Consulting Engineers, Inc., Brian Brown, PE, David Ford Consulting Engineers, Inc.**Issues with and Sensitivity of Submerged Weir Flow Calculations in Hydraulic Simulation Computer Programs**, Michael Archer, Supervising Engineer, MBK Engineers**12:30 – 2:00****KEYNOTE LUNCHEON AND AWARDS**

2:15 – 3:45

FLOOD POLICY SESSION: TOWARD REGIONAL, RISK-BASED FLOOD MANAGEMENT IN CALIFORNIA: A PUBLIC POLICY FORUM**Moderator: Ellen Hanak, PPIC**

This public policy forum brings together flood management experts from federal, state, and local agencies to discuss practical next steps toward such a vision with two of the PPIC study authors. Topics of discussion will include: (i) using a more diverse set of environmentally beneficial flood protection tools, including setback levees and bypasses; (ii) developing better risk-based investment guidelines and more robust funding and cost-sharing approaches; (iii) improving incentives for flood insurance uptake; (iv) better incorporating ecological benefits of flood protection as part of an overall regional strategy; and (v) overcoming institutional barriers to a more integrated regional approach.

Curt Aikens, Yuba County Water Agency**Jay Lund**, University of California Davis (co-author of PPIC study)**Michael Mierzwa**, California Department of Water Resources**Edwin “Stu” Townsley**, U.S. Army Corps of Engineers**Warren “Dusty” Williams**, Riverside County Flood Control District

2:15 – 3:45

PANEL DISCUSSION: RIPARIAN LANDS – THE ROLE OF PLANTS IN FLOODPLAIN VALUE AND FLOOD RISK REDUCTION**Moderator: Stefan Lorenzato, Coordinator, Riparian Habitat Joint Venture**

The discussion will focus on blending the physical and biological characteristics of floodways to achieve designs where plants stabilize the physical channel while the physical channel stabilizes the plant community. The session includes audience participation in placing vegetation types in a model floodplain for flood management purposes.

Jason Sweikel, Chico State Geographic Information Center**Tom Griggs**, River Partners**Chris Bowles**, cbec, inc.**John Pritchard**, Wood Rodgers, Inc.**CONCURRENT TECHNICAL SESSIONS – WEDNESDAY EARLY AFTERNOON**2:15 – 3:45 **TECHNICAL SESSION: Hydrologic Modeling II***SESSION CHAIR: Sharon Humphreys, Senior Project Manager, Bureau Veritas North America, Inc.*

Presenting a Calibrated Hydrologic Model of the Sun Valley Watershed Utilizing the U.S. Army Corps of Engineers Gridded Surface Subsurface Hydrologic Analysis (GSSHA) Software,
Anjanette Dodd, PhD, PE, Manhard Consulting, Ltd.

Extreme Event Determination for Tijuana and San Mateo Rivers: Importance of Exceedances Series vs Annual Maxima Series in Southern California, Luis Parra, URS

Redesigning “Design” Rainfall, Michael Nowlan, PE, CFM, Wood Rodgers, Inc.

Flood Hazard Assessment Challenges in Rain-on-Snow Hydrology in Sierra Valley, California,
Shyamal Chowdhury, PhD, CFM, Vice President, Wood Rodgers, Inc., Michael Nowlan, PE, CFM, Associate, Wood Rodgers, Inc., Shayan Rahman, EIT, Assistant Engineer, Wood Rodgers, Inc., Yigui Liang, PhD, PE, Senior Engineer, DWR, Kathleen Schaefer, Regional Engineer, Region IX, FEMA, Douglas Boyle, PhD, Associate Professor, University of Nevada, Reno

2:15 – 3:45 **TECHNICAL SESSION: Levees – Criteria for Flood Protection***SESSION CHAIR: Mark Seits, PE, CFM, Vice-President, HDR, Inc.*

Challenges and Success of Modifying Federal Levee System and River Corridor by Local Interests, Part 2, Jeffrey Twitchell, PE, Senior Consultant, GEI Consultants, Inc.

Periodic Levee Inspections for the USACE Levee Safety Program, Nathan Schreiner, PE, Civil Engineer, Tetra Tech, Inc.

Criteria for Demonstrating Urban Level of Flood Protection, Rebecca Guo, Associate Water Resources Engineer, MWH, Ken Kirby, FLOODSAFE Executive Advisor, Kirby Consulting Group, Rod Mayer, Assistant Deputy Director, DWR, Allan Oto, Project Engineer, DWR, Ricardo Pineda, Floodplain Management Branch Chief, DWR, Yung-Hsin Sun, Vice President, MWH

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2:15 – 3:45 TECHNICAL SESSION: GIS for Flood Risk Modeling and Master Planning I*SESSION CHAIR: James Moore, Senior Hydraulics Engineer, Nevada Department of Transportation***An Ocean of Data: GIS Data Acquisition for the Open Pacific Coast**, James Johnston, CFM, GISP, GIS Manager, AECOM**Advances in GIS-Based Datasets for Hydrologic Studies**, Dave Peterson, PE, Principal, Peterson Brustad, Inc., Chris Fritz, PE, Project Engineer, Peterson Brustad, Inc., Mike Rossiter, EIT, Staff Engineer, Peterson Brustad, Inc.**Custom Database Applications for GIS Data Management for Large Water Resources Projects**, Eric Anderson, GISP, PG, GIS Programmer, HDR, Inc., Pratibha Basrao, GISP, AICP, GIS Section Manager, HDR, Inc.**2:15 – 3:45 TECHNICAL SESSION: Coastal Flood Risk Modeling and Mapping II***SESSION CHAIR: Bob Battalio, Principal, Philip Williams & Associates***FEMA Initiates the Open Pacific Coast Study to Update Over 450 Flood Insurance Rate Maps Along the Entire California Coastline**, Edward Curtis, PE, CFM, Senior Engineer, FEMA Region IX, Nicole Metzger, Oceanographer, Project Manager, Michael Baker Jr., Inc., Darryl Hatheway, CFM, Senior Coastal Scientist, AECOM Water, Vince Geronimo, PE, CFM, Project Manager, AECOM**800 Miles of Field Reconnaissance on a Shoestring Budget: Findings and Lessons Learned from the California Coast**, Justin Vandever, BakerAECOM**2:15 – 3:45 TECHNICAL SESSION: Alluvial Fan Flood Hazard Assessment II***SESSION CHAIR: Marty Teal, PE, PH, D.WRE, Vice-President, WEST Consultants***Comparative Critique of Flood Hazard Delineations Using FAN, FLO-2D, and Geomorphic Methods Relative to Post-Flood Inundation Mapping**, Jonathan Fuller, PE, RG, PH, CFM, President, JE Fuller/Hydrology & Geomorphology, Inc.**Hydrologic Parameterization Using a Geomorphic-Based Rapid Watershed Characterization Approach**, Li Chen, Division of Hydrologic Sciences, Desert Research Institute, Julianne Miller, Division of Hydrologic Sciences, Desert Research Institute, Thomas Loomis, Flood Control District of Maricopa County**Intent, Suitability and Consequence: the AFTF Geodesign Solution**, Boykin Witherspoon III, Geospatial Research Manager, Water Resources Institute, Cal State San Bernardino, Susan Longville, Geospatial Research Manager, Water Resources Institute, Cal State San Bernardino**2:15 - 3:45 TECHNICAL SESSION: Advanced Modeling Techniques II***SESSION CHAIR: Don Tracy, Associate Civil Engineer, Riverside County Flood Control & Water Conservation District***Risk and Uncertainty Theory - Practical Applications in Water Resources: Shortcuts Taken and Their Possible Effects**, David Williams, PhD, PE, DWRE, FASCE, President, David T. Williams and Associates, Jery Stedinger, PhD, MASCE, Professor, Cornell University, School of Civil & Environmental Engineering**Risk and Uncertainty Analysis: Challenges in Parameter Estimation**, Ben Tustison, PE, DWRE, Supervising Engineer, MBK Engineers**Advanced Modeling Techniques for Flood Reduction Studies and Storm Drain Master Planning**, Carlos Diaz, PE, Project Engineer, Winzler & Kelly, Rick Jorgensen, PE, Project Manager, Winzler & Kelly**3:45 – 4:15****BREAK – EXHIBIT HALL**

4:15 – 5:45

PANEL DISCUSSION: SYSTEM REOPERATION – THE PROMISE AND THE PERILS**Moderator: Elizabeth (Betty) Andrews, PE, Principal Engineer, ESA PWA**

The State of California is undertaking three key initiatives with regard to water supply and flood management systems: multi-objective flood management (FloodSAFE), comprehensive management of the Sacramento-San Joaquin Delta (Delta Plan), and System Reoperations. Senate Bill X2 1 authorized the System Reoperations Program, which seeks to identify and examine promising options for reconfiguring and re-operating the State's flood protection and water supply system to increase water supply reliability and flood protection, and to provide for ecosystem restoration. These initiatives present an extraordinary opportunity for dramatically improving the performance of the State's flood and water supply management system: providing greater water supply reliability, reducing flood hazards, and restoring floodplain habitat and the natural timing of flows at an unprecedented valley-wide scale. However, even if the promise of system reoperation benefits is considerable, technical and institutional challenges exist to developing optimal reoperation plans and implementing them. Panelists will address potential opportunities, technical and policy constraints, and other limiting factors, in light of specific or multiple goals for reoperation (water supply, flood management, ecosystem).

Stu Townsley, US Army Corps of Engineers**John Cain**, American Rivers**Curt Aikens**, Yuba County Water Agency**Jay Lund**, University of California, Davis**Joe Countryman**, MBK Engineers**Michael Mierzwa**, California DWR

4:15 – 5:45

FEMA MOCK DISCOVERY SESSION

4:15 – 5:45

OVERVIEW OF FLOOD RISK MANAGEMENT ACTIVITIES IN CALIFORNIA'S CENTRAL VALLEYPresented by **Rod Mayer**, California DWR**CONCURRENT TECHNICAL SESSIONS – WEDNESDAY LATE AFTERNOON**4:15 – 5:45 **TECHNICAL SESSION: HYDROLOGIC MODELING III***SESSION CHAIR: Scott McGolpin, Director, County of Santa Barbara Public Works***Continuous Hydrologic Simulation - Avoiding the Pitfalls of Assuming Hydrologic Stationarity,**

Richard Shimota, PE, CFM, WEST Consultants, Inc.

Synthesizing Peak Flow Design and Long Term Simulation Hydrology, Michael Nowlan, PE, CFM,

Wood Rodgers, Inc.

NEXRAD Radar Rainfall Analysis in HEC-HMS Hydrologic Modeling, Brian Rowley, PE, CFM,

Associate Project Manager, Atkins

Hydromodification Continuous Modeling Simulation Dilemma: To SWMM or to HSPF? Comparative**Analysis of Q2 in San Diego and Orange Counties,** Luis Parra, URS4:15 – 5:45 **TECHNICAL SESSION: GIS for Flood Risk Modeling and Master Planning II***SESSION CHAIR: William Samuels, Assistant Vice President, SAIC***Enhancing Hydrologic and Hydraulic Analysis with GIS Visualization,** John Pritchard, PE, CFM,

Wood Rodgers, Sheng Tan, GISP, Wood Rodgers

Using Interactive GIS Web Technology for Floodplain Modeling and Data Management,

Pratibha Basrao, GISP, AICP, GIS Section Manager, HDR, Inc., Eric Anderson, GISP, PG, GIS

Programmer, HDR, Inc.

Building a Dynamic Master Plan with GIS, Tory Walker, PE, CFM, LEED GA, President, Tory R.

Walker Engineering, Inc., Tyler Schemper, MS, PE, Project Manager, Tory R. Walker Engineering, Inc.

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4:15 – 5:45 TECHNICAL SESSION: Coastal Erosion, Sea Level Rise and Adaptation*SESSION CHAIR: Pal Hegedus, Vice-President, RBF Consulting***California Takes Action on Sea-Level Rise**, Amber Mace, PhD, Executive Director, California Ocean Protection Council**Sea-Level Rise, Coastal Flood and Erosion Vulnerability Assessment, and Adaptation Solutions**, Nicholas Garrity, PE, Southern California Manager, ESA PWA, Robert Battalio, PE, Principal Engineer, ESA PWA**A Dutch Perspective on Adapting to Rising Tides in San Francisco Bay**, Peter Wijsman, Program Manager, ARCADIS**4:15 - 5:45 TECHNICAL SESSION: FLOOD RISK AND THE CALIFORNIA DELTA***SESSION CHAIR: Mike Mirmazaheri, California DWR***A Framework for Department of Water Resources Investments in the Sacramento-San Joaquin Delta Integrated Flood Management**, Dave Mraz, Delta Levees Engineering and Environmental Branch Chief, DWR**Flood Protection for the Small Communities in the Delta**, Andrea Lobato, Delta Levees Special Flood Control Projects Manager, DWR**Environmental Considerations for Flood Control within the Delta**, Chuck Tyson, Delta Ecosystem Enhancement Manager, DWR**The Need for Consistency in Levee Inspection in the Delta**, Jon Wright, Delta Levees Special Flood Control Projects Manager, DWR**4:15 – 5:45 TECHNICAL SESSION: Advanced Modeling Techniques III***SESSION CHAIR: Clark Frentzen, Chief, Planning and Policy, US Army Corps of Engineers***HEC-RAS and MIKE 11 – Similarities and Differences in an Idealized Channel**, Dale Kerper, MS, PE, Senior Engineer, DHI Water & Environment, Inc., Rohin Saleh, MS, PE, Supervising Civil Engineer, County of Alameda Public Works Agency**Advanced Modeling Techniques used for Floodplain Mapping – Examples from two Watersheds**, Jeff House, CFM, Manhard Consulting, Ltd.**Urban Drainage Design Modeling Approaches: Traditional (HEC/WSPG) vs. Linked-Dynamic (XPSWMM)**, Harshal Desai, PE, CFM, Group Manager, Atkins, Brian Rowley, PE, CFM, Associate Project Manager, Atkins**5:45 – 7:00 RECEPTION IN EXHIBIT HALL (No Host Bar)**

7:00 – 5:00	REGISTRATION
7:00 – 8:00	CONTINENTAL BREAKFAST IN EXHIBIT HALL
7:00 – 8:00	FMA BREAKFAST MEMBERSHIP MEETING
8:00 – 9:00	BREAKFAST SESSION WITH CALIFORNIA DWR: LEVERAGING IRWM FOR FLOOD RISK MANAGEMENT

This session will offer an interactive dialogue regarding the California Water Plan Update 2013, the Statewide Flood Management Planning Program, and the development of a Strategic Plan for the Future of IRWM. Session organized by Chris McCreedy, Mike Floyd and Terri Wegener, California DWR. Moderated by Lisa Beutler, Executive Facilitator, California Water Plan, MWH Global, Inc.

All day, by appointment – FEMA’s Community Rating System (CRS)

9:00 – 10:30 PANEL DISCUSSION: FEDERAL AND STATE EFFORTS ON LEVEE POLICY AND DESIGN CRITERIA

Moderator: Ric Reinardt, MBK Engineers

Levee Certification Program Update from FEMA
Eric Simmons, FEMA Region 9. New guidance on mapping behind levees. Summary of progress on levee certification in the West, key issues and experiences in working with local agencies on certification and mapping.

New Engineering Circular on Levee Safety
Stu Townsley, USACE

Urban Levee Design Criteria
Michael Mierzwa or Vincent Rodriguez, California DWR
David Ford, David Ford Consulting Engineers

Q&A With State and Federal Agencies

9:00 – 10:30 PANEL DISCUSSION: SUSTAINABLE FUNDING STRATEGIES THROUGH INTEGRATED PLANNING

Session Moderator: Bill Harris, City of San Diego

Jay Aldean, Truckee River Flood Project
Terri Wegener, DWR - IRWM, FloodSAFE
Kirby Everhart, Hazard Mitigation Grants Section, CalEMA
Phil Doudar, County of Los Angeles
Megan Fidell, California Department of Water Resources

CONCURRENT TECHNICAL SESSIONS – THURSDAY MORNING

9:00 – 10:30 **TECHNICAL SESSION: Flood Risk Communication Toolbox**
SESSION CHAIR: Jeanne Ruefer, Regional Program Management Lead, Accenture

FEMA’s Outreach Tools and Templates for Community Officials, Franceska Ramos, Mitigation Outreach Specialist, FEMA Region IX, Lisa Messano, CFM, Communications & Outreach Specialist, Michael Baker Jr., Inc., Wendy Chang, Outreach Coordinator, AECOM

Tools You Can Use for Understanding and Communicating Coastal Risk, Stephanie Beard, Outreach Specialist, IMSG at the NOAA Coastal Services Center

Utilizing Innovative Tools to Help the Public Understand Their Flood Risk, Alix Shutello, Managing Director, Team FloodSmart, Marcus Snyder, Team FloodSmart

Placing Risk Awareness Where Risk Decisions are made – Flood Hazard Information for your Protection, Joshua Price, GISP, CFM, Senior Project Manager, Atkins

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9:00 – 10:30 TECHNICAL SESSION: Comparisons of 1D and 2D Hydraulic Modeling Approaches*SESSION CHAIR: Eric S. Clyde, PE, D.WRE, Principal Engineer, MWH Global, Inc.***Pros and Cons of 1D and 2D Modeling**, Bill Syme, Associate, BMT WBM Pty Ltd**The Necessity for Engineers to Review ALL Hydraulic Models**, Rohin Saleh, PE, Alameda County Flood Control District, Dan Matthies, PE, CFM, Wood Rodgers Inc., Chen Soo, PE, CFM, Wood Rodgers Inc.**Comparison of Analyses Along Lower Dry Creek in Northern Sacramento: 1-D Unsteady-State HEC-RAS and 2-D Steady-State SMS Hydraulic Models**, James Heyen, PE, Senior Hydraulic Engineer, WEST Consultants, Inc.**Steady State vs. Unsteady State 1-D/2-D Hydrodynamic Modeling in Support of Floodplain****Mapping – Pros and Cons**, Hassan Kasraie, Kasraie Consulting, Sergio Vargas, Ventura County Watershed Protection District, Planning and Regulatory Division, E. Zia Hosseinipour, Ventura County Watershed Protection District, Planning and Regulatory Division**9:00 – 10:30 TECHNICAL SESSION: Sediment and Erosion: Modeling and Analysis for Arid Regions***SESSION CHAIR: John Hathaway, Watercourse Planning Manager, Flood Control District of Maricopa County***Borrego Canyon Wash Watershed Sediment & Erosion Control / Stabilization Program**,

Bruce Phillips, Senior Vice President, Pacific Advanced Civil Engineering, Inc.

Channel Forming Discharge and Historical Sediment & Erosion Transport Analysis in Arid**Southwestern Streams: Implication for Jurisdiction**, David Jaffe, PhD, PE, D.WRE, Senior Engineer, Dudek**9:00 – 10:30 TECHNICAL SESSION: Flood Risk Planning: Case Studies and Lessons Learned I***SESSION CHAIR: Carl Walker, Senior Civil Engineer, City of Roseville***Drew Valley Flood Mitigation – A Losses Avoided Success Story Verified During the Historic Atlanta September 2009 Flood Event**, Duncan Hastie, PE, Senior Associate, Dewberry**Combining Flood Control and Green Infrastructure Objectives in the Retrofit of Aging Storm Drain****Infrastructure in the City of Berkeley, California**, Gregory Guensch, PE, CFM, Water Resources Engineer, Balance Hydrologics, Edward Ballman, PE, CFM, Principal, Balance Hydrologics, Lorin Jensen, Senior Engineer, City of Berkeley Public Works Department, Josh Bradt, Watershed Resources Director, City of Berkeley Public Works Department**9:00 – 10:30 TECHNICAL SESSION: Risk MAP and Flood Hazard Mapping***SESSION CHAIR: Supervisor Stan Cleveland, Sutter County***Effective Partnering & Collaborating: Mono County's Success Initiating Flood Hazard Mapping****for the Tri-Valley Watershed**, Garrett Higerd, PE, CFM, Associate Engineer III, Mono County Department of Public Works, Eric Simmons, Senior Engineer, FEMA Region IX, Krista Bethune Melnar, PE, CFM, Senior Associate, BakerAECOM**Community Produced, Risk MAP like products for Flood Control District of Maricopa County**,

Patrick Wolf, PE, CFM, Senior Water Resource Engineer, Dewberry, Tim Murphy, Flood Control District of Maricopa County, Farhad Tavassoli, Flood Control District of Maricopa County, Stephanie Routh, Dewberry

Mohave Valley Risk MAP – Assessing Flood Hazard Risk from Peaks to Piedmont, Brian Schalk,

P.E., CFM, JE Fuller Hydrology & Geomorphology

9:00 – 10:30 TECHNICAL SESSION: Floodplain Restoration – Alternative Evaluation*SESSION CHAIR: Salomon Miranda, Engineer, California DWR***Using Hydrodynamic Models to Test the Feasibility of Restoration Alternatives Within the Rose Creek****Watershed, San Diego County, CA**, John Stofleth, MS, cbec eco engineering, Chris Bowles, PhD, PE, cbec eco engineering, Chris Campbell, MS, cbec eco engineering, Mark Carpenter, KTU&A, Julie Fontane, Trestles Environmental Corporation*continued next page*

Using Integrated Models to Quantify Ecological Benefits of Floodplain Restoration: Scenarios on the San Joaquin River, California, Mary Matella, PhD Student, University of California, Berkeley, Mark Tompkins, PE, PhD, NewFields River Basin Services, LLC, John Cain, Director of Conservation for California Flood Management, American Rivers, Eric Ginney, Floodplain Restoration Program Manager, ESA PWA

Integrating Flood Management with Wetland Restoration on Tidally Influenced Streams, Jeffrey Haltiner, PhD, PE, Senior Vice President, ESA PWA, Nicholas Garrity, PE, Senior Managing Associate, ESA PWA

Applications of the Rapid Geomorphic Assessment in Flood Hazard Assessments and Restoration Planning, Tim Abbe, Technical Director, Principal, Vice President, Cardno ENTRIX, Jenne Scholz, Senior Consultant, Cardno ENTRIX, Eliza Ghitis, Senior Staff Geomorphologist, Cardno ENTRIX, Shawn Higgins, Project Geomorphologist, Cardno ENTRIX, Lorin Reinalt, Pierce County Public Works, Surface Water Division, Watershed Partners Unit Lead, Hans Hunger, Pierce County Public Works, Surface Water Division, Capital Improvement Program Manager Director

10:30 – 11:00 BREAK – EXHIBIT HALL – Harbor Island Ballroom

11:00 – 12:30 PANEL DISCUSSION: THE LEVEE CHALLENGE – LOCAL PERSPECTIVES

Moderator: Michael Mierzwa, California DWR

Levee issues in Southern California

Dusty Williams, Riverside County RFCD
Representative, NFIP Coordinator, City of Los Angeles

Impact on Local Communities: Flood Insurance Costs and Requirements

Scott Shapiro, Attorney

Protecting Communities in the Central Valley

Roger Churchwell, San Joaquin AFCA
Supervisor Stan Cleveland, Sutter County

Open Discussion – Moderated

11:00 – 12:30 PANEL DISCUSSION: SEDIMENT MANAGEMENT – IMPACTS AND OPTIONS

Moderator: Bill Harris, City of San Diego

Gary Hildebrand, County of Los Angeles

Greg Woodside, Orange County Water District

Monica Eichler, PE, PMP, Coastal Project Management Section, USACE

Drew Kleis, Program Manager, City of San Diego Transportation & Storm Water Department

Cathryn Henning, San Diego Regional Water Quality Control Board

CONCURRENT TECHNICAL SESSIONS – THURSDAY LATE MORNING

11:00 – 12:30 TECHNICAL SESSION: Success Stories in Flood Risk Communication

SESSION CHAIR: Brian Murray, Policy and Program Supervisor, King County River and Floodplain Management

California Department of Water Resources' Flood Risk Notification Program, Maria Lorenzo-Lee, California DWR

Kentucky Risk Communication & Collaboration Toolbox, Carey Johnson, Risk MAP Manager, Kentucky Division of Water Resources, John Lewis, PE, Environmental Engineer, Kentucky Division of Water Resources, Annemarie Cason, Outreach Specialist, Kentucky Division of Water Resources, Jimmy Stahl, PE, Project Manager, URS Corp., Ben Conley, GIS Specialist, URS Corp.

Using Future Condition Hydrology and Economic Analysis to Convey Risk to Community Members as Part of an Effective Outreach Program, Jim DeAngelo, CFM, Project Manager, Michael Baker Jr., Inc.

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Ensuring Better Public Response in Emergency Evacuations, Ronald Baldwin, Flood Preparedness Specialist, Peterson-Brustad, Inc.

11:00 – 12:30 **TECHNICAL SESSION: 2-D Hydraulic Modeling: Trends and Applications I**

SESSION CHAIR: Dale Kerper, MSCE, PE, Senior Engineer, DHI

Mapping of Floodways using 2D Models, Bill Syme, Associate, BMT WBM Pty Ltd, Colby Manwaring, Manager, XP-Software

Blurring the Lines: Changing Topography Specifications for 2-D Modeling, John Hathaway, PE, CFM, Watercourse Planning Manager, Flood Control District of Maricopa County

Floodplain Managers and 2D Models, Michael Crenshaw, PE, CFM, Stormwater & Flood Products Manager, XP Software, Colby Manwaring, PE, President, XP Software

Innovative Two-Dimensional Floodplain Models: Selecting a Design Alternative to Minimize Flooding Impacts, Rachel Tereska, PE, Principal, NTM Engineering, Inc., Charles Sacavage, NTM Engineering, Inc.

11:00 – 12:30 **TECHNICAL SESSION: Hydromodification Management**

SESSION CHAIR: Sara Agahi, Program Manager, County of San Diego

Hydromodification Management in the San Diego Region, Tory Walker, PE, CFM, LEED GA, President, Tory R. Walker Engineering, Inc., Tyler Schemper, MS, PE, Project Manager, Tory R. Walker Engineering, Inc.

Mitigation of Hydromodification Impacts in a San Diego County Canyon: A Case Study, Venkat Gummadi, CPESC, Senior Staff Engineer, Geosyntec Consultants, Kathleen Harrison, PG, Senior Geologist, Geosyntec Consultants

Hydromodification Management Practices in California, Jim Nabong, Transportation & Storm Water Department, City of San Diego, Eric Mosolgo, Brown and Caldwell

11:00 – 12:30 **TECHNICAL SESSION: Flood Risk Planning: Case Studies and Lessons Learned II**

SESSION CHAIR: Melissa Walker, Chief, Flood Control Planning Div., County of San Bernardino – Dept. of Public Works

Inner Harbor Navigation Canal Project, New Orleans, LA, Paul Stirm, Project Controls Manager, ARCADIS MVN-Contractor

Lessons Learned from Locally Driven Flood Improvement Projects in the Sacramento Valley, Chris Elliott, Principal, ICF International

The Queensland Floods - Where to From Here, Bill Syme, Associate, BMT WBM Pty Ltd.

Contracting Technique to Meet Aggressive Schedule for Louisiana Coastal Protection, A. Wayne Welch, PE, Vice President, ARCADIS, Barbara Lester, PE, L MVR, USACE

11:00 – 12:30 **TECHNICAL SESSION: Effects of Subsidence on Flood Risk**

SESSION CHAIR: William Panos, Director of Pubic Works, City of West Sacramento

Stage Data Corrections for Gage Subsidence and Sea Level Rise in the Sacramento-San Joaquin, David Murbach, Senior Engineer, Peterson Brustad, Inc., David Peterson, Principal, Peterson Brustad, Inc., Roger Churchwell, Deputy Executive Director, San Joaquin Area Flood Control Agency, Gemma Bischocho, Associate Civil Engineer, San Joaquin Area Flood Control Agency, Jeff Conway, District Manager, Reclamation District 800

The Development of Guidelines and Procedures for Land Subsidence Investigations, Kenneth Ferguson, Senior Geologist, AMEC Earth & Environmental, Inc.

Using Interferometric Synthetic Aperture Radar (Insar) Data as a Tool for Flood Risk Assessment, Kenneth Ferguson, Senior Geologist, AMEC Earth & Environmental, Inc.

11:00 – 12:30 **TECHNICAL SESSION: Floodplain Restoration Success Stories**

SESSION CHAIR: John Nicoletti, Supervisor, County of Yuba

Lake Forest Creek Restoration of Historic Stream Channel, Mark Gookin, PE, CFM, Principal, Wood Rodgers, Inc., Mary Horvath, PE, CFM, Associate, Wood Rodgers, Inc., Brian Stewart, PE, Placer County Tahoe Engineering Division

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Importance of Maintenance of Lake Tahoe Environmental Improvement Program Projects,

Mary Horvath, PE, CFM, Associate, Wood Rodgers, Inc., Mark Gookin, PE, CFM, Principal, Wood Rodgers, Inc.

Experiences with Enhancing Salmonid Habitat on a Highly Modified River in California,

Chris Hammersmark, PhD, PE, Eco-engineer, cbec eco engineering, Chris Bowles, PhD, PE, Eco-engineer, cbec eco engineering

Meeting Multi-function Floodplain Restoration Objectives in a Dynamic Coastal Environment

along the Carmel River in Monterey County, California, Edward Ballman, PE, CFM, Principal, Balance Hydrologics, Inc., Eric Riedner, PE, Civic Engineer, Balance Hydrologics, Inc., Annette Cayout, Engineer/Hydrologist, Balance Hydrologics, Inc., Donna Meyers, Director of Conservation, Big Sur Land Trust

12:30 – 2:00**BUFFET LUNCH IN EXHIBIT HALL****2:00 – 5:30****PANEL DISCUSSION: THE PERFECT COASTAL STORM – UNLOCKING THE WEST COAST FLOOD RISK MYSTERY AND EXPLORING THE POLICY AND PLANNING IMPLICATIONS**

This panel will consider the regulatory and planning community's use of several on-going state and federal agency initiatives to map existing or future California coastal flood hazards. These inundation mapping studies consider various mechanics related to coastal flooding: offshore water levels, waves, erosion, sea level rise, and tsunamis. These coastal flood risks have major implications for public safety, and economic and environmental sustainability. Representatives from NOAA, FEMA, USGS, and the CGS will present their coastal study goals and analysis methods during the first panel session. The regulatory and planning community will engage these study managers during the second panel session to understand the use of the coastal flood study results for planning, permitting, and implementing projects that increase resiliency to coastal flooding.

Panel Session No. 1:

Moderator: Vince Geronimo, PE, CFM, AECOM

Ed Curtis, PE, CFM, Regional Engineer, FEMA Region IX Risk Analysis Branch

Chuck Real, GP, Supervising Engineering Geologist, California Geologic Survey

Douglas Marcy, Coastal Hazards Specialist, NOAA Coastal Services Center

Patrick Barnard, Ph.D., Coastal Geologist, USGS Coastal and Marine Geology Program

Panel Session No. 2:

Moderator: Maria Lorenzo-Lee, PE, CFM, CA DWR

Kathy Weldon, Coastal Program Manager, City of Encinitas

Brian Holland, AICP, Climate Programs Director, ICLEI-Local Governments for Sustainability

Amber Mace, PhD, Executive Director, California Ocean Protection Council

CONCURRENT TECHNICAL SESSIONS – THURSDAY AFTERNOON

2:00 – 3:30 TECHNICAL SESSION: Levees – Geotechnical Evaluation and Seepage Mitigation

SESSION CHAIR: Michael Bessette, Flood Protection Manager, City of West Sacramento

Utilizing Automated Analyses for Evaluation of Levees in Sacramento Region, Bob Woldringh,

MSc, Fugro Consultants, Inc., Mike Inamine, DWR, Steve Mahnke, DWR

Geotechnical Levee Hazard Assessments, Vincent Rodriguez California DWR, Steve Mahnke, California DWR, Christopher Jones, California DWR, Richard Miller, URS Corporation, Sujun Punyamurthula, URS Corporation, Ron Heinzen, Kleinfelder Associates

Sheetpiles versus Soil Bentonite Walls: Which One Is Best to Mitigate Levee Seepage Deficiencies?

Case Study at Alameda Creek, Alameda County, CA, Craig Hall, PE, GE, Kleinfelder, Moses Tsang, PE, Alameda County Flood Control District

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2:00 – 3:30 TECHNICAL SESSION: 2D Hydraulic Modeling: Trends and Applications II

SESSION CHAIR: Lea Adams, Hydraulic Engineer, U.S. Army Corps of Engineers, Sacramento District

2D Urban Floodplain Modeling and Economic Loss Estimation Using a Combination of FLO-2D, HEC-RAS, and HAZUS, Liang Xu, Senior Engineer, Santa Clara Valley Water District, Gabriel Vallin, Assistant Engineer, Santa Clara Valley Water District, Christy Chung, Assistant Engineer, Santa Clara Valley Water District

Assessing Urban Flooding Using FLO-2D, Roberta Cronquist, MS, RCE, CFM, Principal Project Engineer, Rick Engineering Company

Urban 2-Dimensional Flow Hydrology in Phoenix, AZ, Afshin Ahouraiyan, PE, Project Manager, Flood Control District of Maricopa County, Rob Lyons, PE, CFM, Civil Engineer, JE Fuller Hydrology & Geomorphology

Urban Surface Flood Analysis Using Coupled 1D & 2D Modeling with XP-SWM, Tom Ryan, PE, RBF Consulting

2:00 – 3:30 TECHNICAL SESSION: Financing Local Flood and Stormwater Programs

SESSION CHAIR: Jamal Batta, CFM, PE, Floodplain Manager, Drainage & Floodplain Management, City of San Diego

Gwinnett County Stormwater Management Program- Implementation of a Stormwater Utility and Benefits Realized in the September 2009 Flood Event, Jonathan Semerjian, PE, Engineer V, Gwinnett County Department of Water Resources, Sam Fleming, PE, Senior Project Manager, Dewberry

Local Agency Financing of Flood Improvements: Compliance with Proposition 218, Andrea Clark, Counsel, Downey Brand LLP

Local Revenue Sources for California Stormwater Management Programs, Jeanette Hahn, Director of Financial Consulting, NBS

Flood Control Prop 218 Assessment District Best Practices, Seth Wurzel, President, Seth Wurzel Consulting, Inc., Kim Floyd, President, Kim Floyd Communications, Inc.

2:00 – 3:30 TECHNICAL SESSION: Innovative Strategies in Flood Risk Planning I

SESSION CHAIR: Gary Hildebrand, Assistant Deputy Director, Los Angeles County Public Works

Time for Extreme Makeover? Why We Should Rethink Our Water Infrastructure, and How, Betty Andrews, Principal, ESA PWA, Eric Ginney, ESA PWA, John Cain, American Rivers, Mark Tompkins, Newfields River Basin Services, Mary Matella, University of California, Berkeley

Applying an Asset Management Program to Storm Water and Watershed Strategic Business Planning and Management, Richard Haimann, PE, HDR, Inc., Dre Kleis, Ed Othmer, PE, Colin Chung, Phd, PE

Integrated Watershed Based Approach to Complex Urban Runoff and Stormwater Management, Youn Sim, PhD, PE, Los Angeles County Flood Control District

Multi-Objective Decision Tool for Flood Control Masterplanning, Bruce Phillips, Senior Vice President, Pacific Advanced Civil Engineering

2:00 – 3:30 TECHNICAL SESSION: Dam Failure and Flood Risk: Mapping and Data Sets

SESSION CHAIR: Brian Stewart, Senior Civil Engineer, Placer County Public Works

Developing a Dam Inundation Database in Region IX under FEMA's Risk MAP Program, Ethan Mobley, Michael Baker Jr., Inc., Xing Liu, Michael Baker Jr., Inc., Edward Curtis, PE, CFM, FEMA, FEMA Region IX

Risk Map Datasets for Dam Safety and Consequence Assessment, Sam Crampton, Dewberry
FEMA's Guidance for Inundation Mapping of Flood Risk Associated with Dam Incidents and Failures, Sam Crampton, Dewberry and James Demby, P.E., FEMA National Dam Safety Program

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2:00 – 3:30 TECHNICAL SESSION: Vegetation and Ecosystem Management*SESSION CHAIR: Jay Aldean, Interim Director, Truckee River Flood Project*

Next Generation Intelligent Cyberphysical Systems for Integrated Environmental Monitoring and Management, Harry Kolar, PhD, Distinguished Engineer, Sensor-Based Solutions, IBM Research
Vegetation Management to Balance Channel Capacity and Riparian Habitat Needs, Ken Schwarz, Consulting Hydrologist, Horizon Water and Environment, Keenan Foster, SCWA Botanist and Resource Manager, Jon Niehaus, SCWA Maintenance Manager

Later Summer Planting: A Benefits Study, Debra Stokes, Regional Sales Manager, DriWater, Inc.

Riparian Lands: The Role of Plants in Floodplain Value and Flood Risk Reduction, Stefan Lorenzato, Coordinator, Riparian Habitat Joint Venture

3:30 – 4:00 BREAK – EXHIBIT HALL**4:00 EXHIBIT HALL CLOSES****4:00 – 5:30 PANEL DISCUSSION: CENTRAL VALLEY FLOOD PROTECTION PLAN – Evaluation Methods and Performance Matrix***Session Moderator: Mike Mierzwa, DWR/Kari Shively, MWH*

This session provides a review of the technical evaluations for supporting the development of the Central Valley Flood Protection Plan. The session will begin with an overview of technical analysis by the moderator.

Overview of Technical Analyses – Mike Mierzwa, DWR/Kari Shively, MWH

System Hydrologic and Hydraulic Performance – Joe Bartlett, DWR /Josh Yang or Eric Clyde, MWH

Flood Damage Reduction and Life Loss Prevention – Jennifer Marr, DWR/Anna Fock, MWH/David Ford, Ford Engineering

Reservoir Studies and Opportunities – Rebecca Guo or Eric Clyde, MWH

Ecosystem Function Enhancement and Restoration Opportunities – Stacy Cepello, DWR/John Hunter, AECOM

Climate Change Adaptation – Matt Young or Yung-Hsin Sun, MWH

CONCURRENT TECHNICAL SESSIONS – THURSDAY LATE AFTERNOON**4:00 – 5:30 TECHNICAL SESSION: Levees – Managing Vegetation***SESSION CHAIR: Andrew Darrow, Development Coordinator, Placer County Flood Control & Water Conservation District*

Managing The Impacts Of Vegetation On Sacramento River Levees, Thomas Smith, PE, GE, President, RiverSmith Engineering, Inc., Col. (Ret.) Thomas Chapman, PE, Associate Vice President, HNTB Corp.

Trees On Levees: Challenges With Conflicting Legal, Federal And Local Policy Mandates, Brian Murray, Supervisor, River and Floodplain Management Section, King County Department of Natural Resources and Parks

4:00 – 5:30 TECHNICAL SESSION: 2-D Hydraulic Modeling: Trends and Applications III*SESSION CHAIR: Thomas Plummer, President, Civil Engineering Solutions, Inc.*

Two-Dimensional Modeling of the Yuba River and Adjacent Floodplains Containing Active Aggregate Mining Operations, John Pritchard, PE, CFM, Wood Rodgers, Inc., Darren Bonfantine, PE, CFM, Wood Rodgers, Inc., Fran Borcalli, PE, Wood Rodgers, Inc., Reinaldo Garcie, PhD, FLO-2D, Inc., Yiguo Liang, PhD, PE, DWR, Tom Christensen, PE, DWR, Shyamal Chowdhury, PhD, CFM, Wood Rodgers, Inc.

2D Hydraulic Modeling of Innovative Streambank Protection Measures, Venkat Gummadi, CPESC, Senior Staff Engineer, Geosyntec Consultants, Aklilu Tesfamichael, PhD, Project Engineer, Geosyntec Consultants

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Two-Dimensional Hydraulic Modeling of the Bike Paths along the Los Angeles River, Dai Thomas, Tetra Tech, Stuart Travant, Tetra Tech, Robert Mussetter, Tetra Tech, Patti Sexton, Tetra Tech
Using an Old Method in a New Way to Model Channels in FLO-2D, Harvey Oslick, PE, CFM, Senior Associate, RBF Consulting

4:00 – 5:30 **TECHNICAL SESSION: Local Revenue Strategies for Flood Risk Financing**

SESSION CHAIR: Diana Hernandez, Senior Civil Engineer, Riverside County Flood Control & Water Conservation District

Don't Take Grants for Granted: Techniques You Can Use to Determine if Your Project is Fundable, Jeff House, CFM, Manhard Consulting, Ltd.

How to Pay For It: An Overview of Common and Effective Revenue Strategies for Flood Control in California, John Bliss, PE, Vice President, SCI Consulting Group

One Part FEMA, One Part CTP, Two Parts Local Community: A Recipe for Local Governments to Seek Funding for Quality Mitigation Proposals, Maureen Teubert, Project Manager, Western Shasta Resource Conservation District

Alternative Insurance Entities (AIEs) - An Innovative Solution to Mitigate Flooding Risk, Jeffrey Adams, PhD, PE, Associate, ENGEO Inc.

4:00 – 5:30 **TECHNICAL SESSION: Innovative Strategies in Flood Risk Planning II**

SESSION CHAIR: Judy Soutiere, Flood Risk Program Manager, USACE, Sacramento District

Toward Understanding the Flood Protection Function of the Yuba Goldfields, Ben Tustison, PE, DWRE, Supervising Engineer, MBK Engineers, Don Trieu, PE, Principal, MBK Engineers

Decision Support Systems (DSS): New Tools for your Engineering Work Belt, Elizabeth Mesbah, PE, Water Resources Engineer, HDR, Inc.

Drought, an Opportunity to Organize Streams, Mohammad Rasavi Moghaddam, Student, Department of Watershed Management, Science and Research Branch, Islamic Azad University, Tehran, Iran, Dr. Ali Akbar Abbasi, Faculty Member of Agriculture and Natural Resources Research Center of Khorasan Razavi, Iran, Dr. Baharak Motamed Vaziri, Faculty Member of Department of Watershed Management, Science and Research Branch, Islamic Azad University, Tehran, Iran

Flood Future: Recommendations for Managing California's Flood Risk and Statewide Integrated Flood Management Planning, Terri Wegener, Program Manager Statewide Flood Management Planning, DWR

4:00 – 5:30 **TECHNICAL SESSION: Dam Failure Modeling and Operational Issues**

SESSION CHAIR: Sergio Vargas, Deputy Director, Ventura County Watershed Protection District

Use of DSS-WISE Software for Flood Emergency Management due to Dam and Levee Breach, Mustafa Altinakar, Director and Research Professor, The University of Mississippi, Yan Ding, Research Assistant Professor, The University of Mississippi, Jaswant Singh, Research Scientist, The University of Mississippi, Matthew Inman, Research Associate, The University of Mississippi

Faster-Than-Real-Time, Two-Dimensional Dam and Levee Breach Flood Simulation as a Computer Game, Mustafa Altinakar, Director and Research Professor, The University of Mississippi, Marcus McGrath, Research Assistant, PhD Student, The University of Mississippi, Vijay Ramalingam, Scientific Software Developer, The University of Mississippi

Unexpected Flood – The Failure of a Tailings Dam in Hungary, Pal Hegedus, PE, DWRE, Vice President, RBF Consulting

Optimizing Fusegates Design and Operation for Maximizing Dams Safety during Flooding Conditions, Abbas Afshar, Professor, Iran University of Science and Technology, Zeinab Takbiri, Researcher, Iran University of Science and Technology

4:00 – 5:30 **TECHNICAL SESSION: Sediment Transport and Erosion Below Dams**

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SESSION CHAIR: Stuart McKibbin, Principal Engineer, Riverside County Flood Control & Water Conservation District

Application of Sediment & Erosion Modeling to the Lower Santa Ana River below Prado Dam,
David Pizzi, PE, Hydraulic Engineer, Tetra Tech

Following the Sediment & Erosion from Prado to the Pacific: Applying the SIAM Module in HEC-RAS to the Lower Santa Ana River in Southern California, Jake Gusman, PE, Project Manager, WEST Consultants, Inc., Darren Bertrand, Hydrologist, WEST Consultants, Inc., Vicki Tripolitis, Hydraulic Engineer, WEST Consultants, Inc., Monica Eichler, PE, PMP, Coastal Section Project Manager, USACE, Van Crisostomo, PE, Chief, Hydraulics Section, USACE

Sediment & Erosion Impact Analysis Method for Dam Flushing Investigation, Dragoslav Stefanovic, PhD, PE, DWRE, Director of Applied Research, WEST Consultants, Inc., Christine Warren, PE, Senior Hydraulic Engineer, WEST Consultants, Inc.

5:30 – 7:30

SAN DIEGO TROPICAL RECEPTION



The 2011 FMA Annual Conference includes a field trip to the Tijuana River Valley, on Friday, September 9. *Photos courtesy of Rick Engineering*

Friday, September 9, 2011

8:00 – 10:00	REGISTRATION
8:00 – 9:00	CONTINENTAL BREAKFAST
8:30 – 12:30	CFM EXAM
9:00 – 2:00	FIELD TRIP: AWARD WINNING TIJUANA RIVER VALLEY PROJECT

Coordinators: *Dennis Bowling, Rick Engineering, and Bill Harris, City of San Diego*

Project: Tijuana River Valley

The **Tijuana River Valley** is a broad alluvial floodplain and at the terminus of the Tijuana River's 1,700 square mile watershed. Near the coast is the most extensive salt marsh in southern California, which is preserved within the Tijuana River National Estuarine Sanctuary. Further inland, the floodplain covers much of the San Diego County Tijuana River Valley Regional Park.

The river valleys floodplain currently contains a mixture of agricultural fields, equestrian facilities, trails, park facilities, rural housing, riparian woodland and disturbed habitats. The river valley itself has proven to be very dynamic, changing with the flooding from each major storm that passes through the region. In addition sediment, trash, and sanitation issues also affect the Tijuana River Valley as the majority of the watershed is located within Mexico, covering areas from Tijuana to Tecate.

This tour of the Tijuana River Valley will explore many areas of the valley and allow you to see firsthand the results of storm events that have passed through the area, including areas of severe sedimentation and areas with the remnants of heavy trash and debris. This tour will discuss areas of historic sedimentation, ongoing channel maintenance efforts, flood protection projects, sanitary sewer diversions, and other regional plans to improve and restore the Tijuana River Valley.

CONCURRENT TECHNICAL SESSIONS – FRIDAY MORNING

8:30 – 10:00 TECHNICAL SESSION: Flood Mapping Technologies and Applications I

SESSION CHAIR: Steve Crosby, City Engineer, City of Poway

Flood Mapping and the Consequence Assessment Tool Set (CATS), William Samuels, SAIC
Floodplain Mapping Technology: A Combination of Tools in Today's Modern Mapping World,
 Chris Fritz, PE, Project Engineer, Peterson Brustad, Inc.

A Risk MAP Story – Co-Creating Resilience in Marin County, California, Kris May, PhD, PE, Coastal Engineer, Scientist, AECOM, Lisa Messano, CFM, Communications & Outreach Specialist, Michael Baker Jr., Inc., Edward Curtis, PE, CFM, Senior Engineer FEMA Region IX, Kathleen Schaefer, PE, Senior Engineer, FEMA Region IX

8:30 – 10:00 TECHNICAL SESSION: Strategies for Reducing Flood Risk in the Central Valley I

SESSION CHAIR: Ricardo Pineda, Chief, NFIP Coordinator, California DWR

Identification and Prioritization of Multi-Use Floodplains In The Central Valley, Chris Bowles, PhD, PE, Eco-engineer, cbec eco engineering

A Five Point Program for Economic Prosperity and the Central Valley Flood Management Plan, John Cain, Director of Conservation for California Flood Management, American Rivers

California's Flood Bypasses of the Past as a Multi-Benefit Solution for the Future, Katie Jagt, PE, Fulbright Fello and Consulting Engineer, John Cain, Director of Conservation for California Flood Management, American Rivers, Jessica Ludy, American Rivers

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8:30 – 10:00 TECHNICAL SESSION: Stormwater Management

SESSION CHAIR: Raymond Gutierrez, Manager Development & Inspection Services Division, Ventura County Public Works Agency

Regulatory Realities in the San Diego Region, Tory Walker, PE, CFM, LEED GA, President, Tory R. Walker Engineering, Inc.

Flooding and other Environment Challenges: Getting to the Root of the Problem, Linda Flournoy, PLE4Sustain-Planning & Engineering for Sustainability

Assessment of Permeable Pavement Performance in High Volume Flooding, Richard Lucera, PE, CFM, RBF Consulting

10:00 – 10:15 COFFEE**CONCURRENT TECHNICAL SESSIONS – FRIDAY LATE MORNING****10:15 – 11:45 TECHNICAL SESSION: Flood Mapping Technologies and Applications II**

SESSION CHAIR: Brian Trushinski, Floodplain Manager, County of Ventura

Review of HEC-GeoRAS and HEC-RAS Mapper for Delineation Projects, Mark Fountain, PE, CFM, Water Resources Department, HDR, Inc., Mark Forest, PE, HDR, Inc.

Using LIDAR for Structure Inventory and Enhanced Terrain Model Development, Carrie McCrea, GIS Analyst/Stormwater Specialist, AMEC Earth & Environmental, Daniel Gwartney, CFM, GIS Analyst/Remote Sensing Specialist, AMEC Earth & Environmental

LiDAR Technology in Floodplain Mapping, Mark Meade, PE, PLS, CP, Sr. Vice President, Chief Technical Officer, Photo Science

10:15 – 11:45 TECHNICAL SESSION: Strategies for Reducing Flood Risk in the Central Valley II

SESSION CHAIR: Jim Giottonini, Executive Director, San Joaquin Area Flood Control Agency

Teetering on the Brink to Model Flood Response in the Sacramento-San Joaquin Delta, Ronald Baldwin, Flood Preparedness Specialist, Peterson-Brustad, Inc.

Flood Risk Management in Lower San Joaquin River Basin, Pani Ramalingam, PhD, PE, Senior H&H Engineer, HDR, Inc., Su Mishra, PhD, PE, Senior Technical Advisor, HDR, Inc., Selena Forman, PhD, PE, Senior Project Manager, Atkins, Dave Wheeldon, PE, Floodplain Evaluation Branch Chief, DWR

Flood Control System Status Report - Physical Condition of State Plan of Flood Control Facilities for the Central Valley Flood Protection Plan, Mary Jimenez, PE, Supervising Engineer, MWH Americas, Inc., Jeremy Arrich, PE, Chief, Central Valley Flood Planning Office, DWR, Merritt Rice, PE, Levee Evaluations Program, DWR, Eric Tsai, PE, Senior Engineer, MWH Americas, Inc.

10:15 – 11:45 TECHNICAL SESSION: Flood Hazard Regulatory Issues and Perspectives

SESSION CHAIR: Thomas Fayram, Deputy Public Work Director, Santa Barbara Co. Flood Control & Water Conservation District

Correcting Building Permit Violations in the City of Sacramento, Dave Brent, Government Affairs Coordinator, City of Sacramento, Department of Utilities

New and Improved Process for Issuing Building Permits in a Floodplain in the City of Sacramento, Connie Perkins, CFM, Senior Engineer, City of Sacramento, Department of Utilities

The U.S. Army's Redundancy, Robustness, and Resiliency Requirement for Flood Control Channels: What Does It Mean and What Do They Want?, David Williams, PhD, PE, CFM, DWRE, DTW and Associates, LLC, Larry Dacus, PE, MBK Engineers, George Sills, PE, George Sills Geotechnical Engineering Consultants, LLC, Derek Larsen, PE, MBK Engineers

The NFIP: A Historical Perspective, Michael Buckley, Vice President, Dewberry

12:00**CONCLUSION OF 2011 FMA ANNUAL CONFERENCE – SEE YOU NEXT YEAR IN SACRAMENTO!**