



“Sustainability in the Face of Change”

PRELIMINARY CONFERENCE PROGRAM
SEPTEMBER 4-7, 2018
THE ATLANTIS, RENO, NV

**Program Tentative and Subject to Change*

***Program as of August 20, 2018*

Tuesday, September 4, 2018**

7:30 am – 5:00 pm Registration – Grand Foyer

7:30 am – 8:30 am Continental Breakfast – Promenade

FLOODPLAIN MANAGEMENT REVIEW COURSE

8:30 am – 5:30 pm

8:30 am – 5:30 pm CALIFORNIA DEPARTMENT OF WATER RESOURCES FLOODPLAIN MANAGEMENT REVIEW COURSE (No CECs for this course)

Location: Grand 5

This full-day workshop reviews floodplain management concepts, practices, and regulations and is intended for those individuals preparing for the CFM exam. The CFM examination is a patented certification by the Association of State Floodplain Managers (ASFPM) focused primarily on FEMA’s National Flood Insurance Program. **If you wish to take the CFM examination, you must register separately with ASFPM at <https://www.floods.org/> at least 3 weeks prior to the examination (fees apply). The CFM examination is scheduled for Friday, September 7, at 8:00 a.m. at this conference. Note: If you are not a full conference attendee, and would like to attend this workshop, the one-day FMA conference fees apply.** To ensure all attendees obtain the workshop’s material you must ALSO register separately with DWR at <https://www.eventbrite.com/o/dwr-floodplain-management-assistance-17128699424> (materials provided for free by DWR).

Instructors: Ray Lee, CA DWR
Raul Barba, CA DWR
Garret Tam Sing, CA DWR
Jesus Esparza, CA DWR

TUESDAY CONCURRENT SESSIONS

9:00 am – 1:00 pm



9:00 am - 1:00 pm WORKSHOP: DROUGHT, FIRE AND MUDFLOWS: INCREASED FREQUENCY AND SYMPTOMS OF THE CLIMATE CHANGE OR NOT?

Location: Emerald ABC

Instructors: Jimmy O’Brien, PhD, PE, FLO-2D Software

Predictive tools that can provide accurate mudflow modeling and hazard delineation will be presented in this workshop. The delineation of mudflow hazard areas and the evaluation of alternatives for managing and mitigating mudflow hazards including channel conveyance, deflection berms, and storage areas will be presented. The workshop will introduce the theory and details about hyper-concentrated sediment flows (mud and debris flows) with videos of hyper-concentrated flows. The following topics will be covered:

- Flood and mudflow frequency analysis (FreqPlot Program)
- Physical processes of hyper-concentrated sediment flows
- Impact of fires on rainfall runoff.
- How to perform a mudflows simulation with FLO-2D
- Mud and debris flow simulation guidelines and parameter selection
- Hazard mapping tools

The latest enhancements for the FLO-2D mudflow component will be introduced. The FLO-2D Pro model is a fully functional hydrology and hydraulic model that simulates hyper-concentrated sediment flow by tracking sediment volumes through the grid system. Mitigation alternatives can be tested for both water flooding and mudflows.

10:00 am – 4:30 pm WORKSHOP: RISK COMMUNICATION FOR FLOOD MANAGERS

Location: Grand 4

Instructors: Stacy Langsdale, U.S. Army Corps of Engineers (USACE)

Preston Wilson, Federal Emergency Management Agency (FEMA)

Kellie Mullen, Resilience Action Partners

Communication of risk can influence a community’s preparedness and resiliency, and thus save lives. Risk communication activities help all stakeholders, including the general public, city officials, and owners of flood management infrastructure, recognize both the benefits and risks associated with dams and levees, and take action to manage risk to themselves and their communities. Each stakeholder has unique roles and responsibilities, and the most resilient communities have all players working toward managing risk, whether through maintaining infrastructure, developing comprehensive floodplain management plans, or monitoring flood forecasts and taking action.

Participants who attend this workshop will:

- Learn techniques to enhance communication for a variety of audiences, including: local officials, dam owners and regulators, emergency managers, and the public.
- Understand the factors that influence how people feel about risk and how they receive information about risk.
- Learn principles and best practices for risk communication, including open and transparent communication, interactive discussions, and a two-way exchange of information.
- Learn tools and tips for developing and adapting messages for different audiences, including translating technical information into plain language.

11:00 am – 1:00 pm WORKSHOP: CA FUNDING FOR FLOOD CONTROL

Location: Grand 7

Instructors: John W. Bliss, P.E., President, SCI Consulting Group

Jerry Bradshaw, P.E., Senior Engineer, SCI Consulting Group

Navigating and understanding California’s various funding mechanisms and choosing the most appropriate and viable one for



your agency can be difficult. Attendees will receive a comprehensive overview of available funding mechanisms for local flood control agencies including: 1.) Special Taxes, 2.) Benefit Assessments, 3.) Property-Related Fees, 4.) Regulatory Fees as well as an introduction to Upland and SB 231 approaches and other types of financial strategies such as grants and loans. The pros and cons, and administrative requirements of each approach will be presented, along with legal requirements, technical needs and political realities. Community outreach associated with a new funding mechanism, especially a balloted one, is crucial. An overview of current approaches in community outreach to support a funding measure will be presented including effective, direct communication, social media, media management, stakeholder management and opposition management. Case studies of successful implementations of new funding will include City of San Mateo, City of San Carlos, Bethel Island Municipal Improvements District, RD 10, RD 1001, and the Three Rivers Levee Improvement Authority.

LUNCH ON OWN

1:00 pm - 1:30 pm

TUESDAY CONCURRENT WORKSHOPS AND OPEN FORUMS (CONT'D.)

1:30 pm – 5:30 pm

1:30 pm - 3:30 pm WORKSHOP: Mis-Use of HEC-RAS for Bridge Scour

Location: Grand 6

Instructors: David T. Williams, DTW & Associates

The U.S. Army Corps of Engineers Hydrologic Engineering Center’s HEC-RAS software (HECRAS) is the primary tool used in the water resources industry for hydraulic analysis. From its popularity for regular hydraulic analysis, it has also been popular for performing bridge scour analyses. The ease of using HEC-RAS for scour analyses is seducing in that an engineer can perform a “successful” analysis but does not have a full understanding of what the program is doing when performing the scour calculations. In addition, the bridge scour algorithms in HECRAS are based upon Hydraulic Engineering Circular No. 18 (HEC-18, 2001) but several updates have been issued with the latest being on April 2012. Since the HEC-RAS Version 3.0.1 was issue in 2001, HEC has not updated Version 5.0.3 based upon the HEC-18 document released in 2012. This workshop will point out subtle errors that can occur and explain the updates that were not input to HEC-RAS. Depending on time constraints, 10 examples or more will be presented to illustrate the potential errors and a list presented of the HEC-18 updates with discussions on their ramification on the HEC-RAS results.

Topics to be discussed are, but not limited to: 1. Application of scour depths to anticipated lateral movement of the main channel 2. Analysis of Pier groups 3. Modeling pier debris buildup and its effect on pier scour 4. Understanding basis of pier and abutment built in safety factors and their application 5. Potentially double counting pier skew 6. Proper selection of approach and exit cross sections for abutment scour 7. Analysis of complex piers systems (pier, pier cap, piles, foundations, etc.) 8. Determining the worst case scour scenario (may not be the highest discharge) 9. Analysis of elongated piers 10. Analysis of sacrificial abutment slopes for abutment scour.

1:30 pm - 4:30 pm WORKSHOP: FROM REVIEWERS STANDPOINT LETTER OF MAP REVISIONS AND PHYSICAL MAP REVISION DATA REVIEW

Location: Grand 7

Instructors: Alex Haptemariam, PE, CFM, Stantec

Thomas Schweitzer, PE, CFM, GISP, Atkins North America

Daven Patel, PE, CFM, Atkins North America

This workshop will be helping and educating requesters, community officials (floodplain managers), engineers, and other state reviewers involved in Letters of Map Revision (LOMRs) and Physical Map Revisions (PMRs) (DNR, USACE) focusing in technical issues on how to meet the FEMA floodplain regulations from modeling to mapping that are produced through the LOMR and PMR and levee LOMR submittal



“Sustainability in the Face of Change”

PRELIMINARY CONFERENCE PROGRAM
SEPTEMBER 4-7, 2018
THE ATLANTIS, RENO, NV

process. we are the currently FEMA reviewers for Regions 5, 7,9,10,5 and We have been delivering latest and current FEMA regulations and updates through this and other conferences to expedite the Mapping, Levee, ESA and LOMR process.

- Discuss former and new approaches from the reviewers stand point on LOMRs and Mapping Procedures acceptable technical modeling and new regulations and policies that affect the change.
- Identify common mistakes on LOMR modeling and mapping on LOMR submittals.
- Discusses the new 2017 FEMA LOMR forms and guidelines, and submittal technical requirements.
- Provide information to connect the community officials, requestors, FEMA region and FEMA HQ during the process and review.

3:30 pm – 5:30 pm WORKSHOP: New and Future Features in HEC -RAS

Location: Grand 6

Instructors: Marty Teal, WEST Consultants
Mark Forest, HDR Engineering, Inc.

For those how have been using HEC-RAS Version 5, you have had the opportunity to utilize the powerful new features for both 1D and 2D analysis and pre- and post-processing directly within the enhanced RAS Mapper utility that fully replaces GEO-RAS. This workshop will provide an overview of recent and future changes to HEC-RAS. The first part of the workshop will provide an overview of the recent changes to HEC-RAS 5.0.5 and how that version differs from 5.0.3. The second part of this workshop will provide an overview of the planned new features to HEC-RAS version 5.1 and 6.0. These future additions include many significant changes such as; a finite volume solver for 1D, (including the ability to model dry channels), gridded rainfall, spatially variable infiltration, pressure flow bridges and pump stations in 2D domain, enhancements to mesh generation tools and enhancements to improve speed and larger model domains.

3:30 pm - 4:30 pm MEET AND GREET WITH CALIFORNIA, NEVADA AND HAWAII STATE FLOOD AGENCIES

Location: Emerald ABC

Please join us for a networking opportunity with staff representing multiple state agencies with flood management, emergency management, and mitigation responsibilities. This event will open with program overviews from participating agencies followed by a meet and greet with conference attendees. Agencies include: Nevada DWR, California DWR, Hawaii DLNR, Nevada Division of Emergency Management and other invited state agencies such as CalOES and more.

4:30 pm -5:30 pm OPEN HOUSE WITH FEDERAL AGENCIES

Location: Emerald ABC

Please join Federal agencies' (FEMA, USACE and others) staff to discuss mapping needs, grant opportunities, and compliance with development regulations during this open forum drop-in discussion. Federal staff will be available to field your questions and direct you to the appropriate resources to address your concerns.

Opening Reception and Community Service Project!

Exhibit Hall – Paradise DE and Terrace

5:30 pm - 7:30 pm

***Meet in the Exhibit Hall for the Opening Reception and
Community Service Project!***



Wednesday, September 5, 2018

7:30 am - 5:00 pm Registration – Grand Foyer

7:30 am - 8:25 am Continental Breakfast -- Exhibit Hall

PLENARY I

THE ASCE GRADES ARE IN: WHAT IS AMERICA'S INFRASTRUCTURE GPA?

ASCE National President, Kristina Swallow, PE, ENV SP, F.ASCE

8:30 am - 10:00 am

Paradise ABC

Welcome from the Floodplain Management Association Chair and Executive Director:

George Booth, Chair, Floodplain Management Association

Mary Seits, Executive Director, Floodplain Management Association

Welcome Remarks: Honorable Geno Martini, Mayor of Sparks, Nevada

Introduction of the Conference Chairs: Mary Seits, Executive Director, Floodplain Management Association

Introduction and Opening Remarks by Co-chairs:

Michael Hornick, Federal Emergency Management Agency

Bunny Bishop, Nevada Department of Water Resources

Jay Aldean, Truckee River Flood Management Authority

The American Society of Civil Engineers' (ASCE) President Kristina Swallow, P.E., will provide an overview of the 2017 *ASCE Infrastructure Report Card* including the 16 category grades and ASCE's solutions to raise them. She'll highlight the role that investment, improved leadership and planning, and better preparation for the future play in a resilient and sustainable future. Kristina will also discuss ASCE's Grand Challenge, which seeks to reduce infrastructure life cycle costs and foster the optimization of infrastructure for society.

Break

10:00 am - 10:15 am

PLENARY II

BIG DATA = BIG FUTURE + BIG CHALLENGES

10:15 am – 11:45 am

Paradise ABC

Moderator: ASFPM Larry Larson Speaker Series, Doug Plasencia

Big data methodologies are being used increasingly to provide flood risk information at scales ranging from the community level to the entire nation. It represents the use of large volumes of structured and unstructured data, analyzed and manipulated to capture trends or observations that might be considered meaningful. At its simplest form, it can range from leveraging massive geospatially referenced data sets into physical models, to using data analytic tools searching for trends in equally massive data sets.



“Sustainability in the Face of Change”

PRELIMINARY CONFERENCE PROGRAM
SEPTEMBER 4-7, 2018
THE ATLANTIS, RENO, NV

Recently, big data solutions have been applied to flood risk identification, providing data analytics and results in new ways, and with notable consequences. Potential applications include determination of flood risk, informing of insurance ratings, flood forecasting, investment modeling, post-event damage assessments, post-event planning analytics, and other uses. Each of these applications can have profound consequences for the end users and the public. Challenges include assumptions made with incomplete data, appropriate reporting of results, sensationalizing of headlines, understanding of the limitations of specific results, the proper role of professional engineers in risk data that impact public safety, and what investments must be made to improve big data usage in the future. A recent application of big data for flood risk uses has signaled potential downgrade of future municipal bonds for high risk areas, while in another recent instance, there were serious concerns about the results and what they suggested. Furthermore, when entities developing these datasets are asked to explain assumptions, quite often there is little to no response or proprietary analyses are claimed, preventing full transparency into the development and reporting of results.

The purpose of this plenary session is to start a discussion on the benefits, risks, and challenges associated with the use of big data in flood risk identification and flood risk management. This plenary session is presented by the ASFPM Foundation in collaboration with FMA.

Panelists: Dan Cotter, Director, First Responders Group at U.S. Department of Homeland Security
Ed Clark, Director, National Water Center & Deputy Director Office of Water Prediction, NOAA
David Ford, Principal Hydrologic Engineer, HDR
Samantha Riley Medlock, ASFPM and Senior VP, Willis Towers Watson

SPECIAL PRESENTATION OF COMMUNITY SERVICE PROJECT – EXHIBIT HALL

THANK YOU HDR, MBK, Wood Rodgers, Downey Brand, GEI, KSN, Mead & Hunt, Larsen Wurzel, Engeo and Kleinfelder!!

12:00 pm – 12:30 pm

AWARDS LUNCHEON and KEYNOTE

Paradise ABC

12:30 pm - 2:15 pm

Floodplain Management Association Annual Awards Presentations

Ricardo Pineda, Awards Chair

Keynote: Chris Smallcomb, Warning Coordination Meteorologist

National Weather Service, Reno

WEDNESDAY CONCURRENT SESSIONS

2:30 pm - 3:50 pm



10:15 am – 5:30 pm CRS One-on-One Appointments

Location: Emerald D

Appointments can be scheduled for any time from 10:15pm-5:30pm Wednesday, September 5. To ensure your first choice of available times, please contact Constance Lake at 307.258.5661 or clake@iso.com. Meetings will be held in the Emerald D room of the Atlantis Resort. This is an opportunity to discuss specifics about your program to find out what is needed for your community to join CRS or improve its current CRS classification. Discussion topics could include your community’s land use management program, higher regulatory standards, stormwater management program, flood warning system, watershed management program, or any other components of a balanced floodplain management program.

2:30 pm - 3:50 pm PANEL: REGIONAL SUSTAINABILITY

Location: Grand 1

Moderator: Arthur Hinojosa, Division Chief, DWR Integrated Regional Water Management, CA DWR

One of the ten actions in Governor Brown’s CA Water Action Plan calls for an *“increase in regional self-reliance and integrated water management across all levels of government.”* State agencies have been providing financial and technical assistance for over a decade to help regional stakeholders, disadvantaged communities and Tribes to build capacity for regional sustainability. But there remains much work to be done, including the need to cooperate across jurisdictional and political boundaries to reconcile overlaps and inefficiencies in regulations, governance and planning efforts. This panel will explore opportunities for flood managers to engage and help influence positive change.

Panelists: Anecita Agustinez, Tribal Policy Advisor, CA DWR

Michael Thompson, P.E., Assistant General Manager, Maintenance Division, Sonoma County Water Agency
Other panelists TBD

2:30 pm - 3:50 pm LEGAL PANEL: WATER RESOURCE INFRASTRUCTURE FINANCING UNDER THE TRUMP ADMINISTRATION

Location: Grand 3

Moderator: Andrea Clark, Downey Brand LLP

This panel discusses financing opportunities and dynamics at the federal level and how local entities can find opportunities for financing.

Panelists: Scott Shapiro, Legal Overview

Richard M. Johnson, Executive Director of SAFCA

Kelly Colyer (Invited)

Local consultant on traditional and non-traditional federal funding mechanisms

Optional USACE Division finance manager

2:30 pm- 3:50 pm PANEL: DAM SAFETY SESSION 1 – USING NEW REGULATIONS TO PROMOTE DAM SAFETY IN CALIFORNIA, NEVADA AND HAWAII

Location: Grand 4

Moderator: Brian Brown, PE, CFM, MBK Engineers

In June 2017, significant legislative changes related to dam safety were adopted by California with the passage of Senate Bill 92 (SB 92). SB 92 requires inundation maps to be produced for all jurisdictional dams (except low hazard dams) in California and tasks the California DWR with approving these maps. After the approval of the inundation maps, dam owners are required to produce an emergency action plan (EAP) that Cal OES is tasked with reviewing and approving. The bill also requires inundation maps and EAPs to be updated every 10 years, for dam owners to hold an annual notification exercise with public safety agencies, and for the EAP to be developed with any local public safety agency that may be impacted to the extent they wish to participate. These products are a valuable communication tool for state and local flood management.



“Sustainability in the Face of Change”

PRELIMINARY CONFERENCE PROGRAM
SEPTEMBER 4-7, 2018
THE ATLANTIS, RENO, NV

The products produced under the requirements of SB 92 are being used by DWR and Cal OES to promote the coordination and awareness of dam safety to the general public in California. The approved inundation maps are made available to the public. These requirements have also prompted Nevada DWR to consider updating their regulations to promote dam safety. Hawaii has also made legislative changes and program changes to promote dam safety in their state, after the tragic Kaloko reservoir dam breach in 2006. The panelists will discuss using the new regulations within their state to reach out to the public and emergency managers to promote dam safety.

Panelists: José Lara, Dam Emergency Action Plan Division, Cal OES, Dam Safety Program
Kristin Martin, P.E., Division of Safety of Dams, Senior Design Engineer, CA DWR
Eddy Quaglieri, P.E., Engineering Manager, Nevada Division of Water Resources
Edwin Matsuda, State Dam Safety Engineer, Hawaii Department of Land and Natural Resources

2:30 pm - 3:50 pm PANEL: THE CHANGING CLIMATE OF COMMUNICATION AND OUTREACH

Location: Grand 7

Moderator: Ellen Cross, Environmental Science Associates

Conveying issues associated with flood risk and response to the public and media has always been challenging. Climate change affects present potential additional risks as weather extremes create higher peaks, more extensive closed basin flooding, and more extreme fires (and related subsequent erosional hazards). As risks to human life, property and the ecosystem increase, communicating on resiliency efforts as well as public and private responsibilities continue to evolve. Our speakers will talk about the challenges of communicating risk and response actions as the stakes grow higher. In addition to changes in flood peaks directly related to climate change, catastrophic wildfires also can damage soils which may affect groundwater recharge and can limit or alter the vegetative recovery because it may be more difficult to establish new trees and vegetation in the burned-over area. In 2013, the massive Rim Fire threatened San Francisco's main water supply source and shattered records for the largest wildfire ever in the Sierra Nevada. In the American River watershed 30% of the forest of lands have burned since the year 2000.

Panelists: Dwayne Smith, Washoe County
Debbie Neddenriep, Carson Water Subconservancy District
Andy Fecko, Strategy Director, Placer County Water Agency
Brad Sherwood, Government Affairs, Sonoma County Water Agency

2:30 pm - 3:50 pm PANEL: A WATER YEAR TO REMEMBER: FIRE TO FLOOD REFLECTIONS

LOCATION: Emerald ABC

Moderator: Melissa Weymiller, USACE

Over the past year and beyond, we have seen not only an increase in the size of wild fires in California, but also have seen the traditional fire season extend beyond what we historically presumed. Fires that extend late in to the year, like the Thomas Fire, challenge the response efforts of agencies, with the threat of significant rain falling within days of a wild fire instead of week or months. The result also reminds us of the significant threat debris flows pose to communities downstream of recently burned areas. The Thomas Fire and the 1-9 Debris Flow illustrated not just the threat, but also emerging issues on communications with the public. How to communicate to a population that uses diverse communication methods needs to be better understood.

Panelists: Jeremy Lancaster, C.E.G., Acting Supervising Engineering Geologist, CA Geological Survey
Margaret Engesser, USACE – Sacramento District
Thomas Fayram, P.E., CFM, Deputy Public Works Director, Santa Barbara County Public Works, Department Water Resources Division
Jonathan S. Frye, P.E., CFM, Engineering Manager, Santa Barbara County Flood Control &



Water Conservation District

2:30 pm - 3:50 pm TECHNICAL SESSION: Creating More Accurate FIRMS: LOMCs and PMRs

Location: Grand 2

Session Chair:

- **Using LiDAR Data to Support Letters of Map Amendment (LOMAs) - What Submitters Need to Know: Presenter(s):** Matt Richards, CFM, Michael Baker International
- **Analysis of Aging Flood Insurance Rate Maps (FIRMS) in California: Presenter(s):** Nathan Van Emmerik, PE, CA DWR, **Co-author(s):** Yiguo Liang, PE, CA DWR; Michael Mierzwa, PE, CA DWR
- **The Pursuit of a FEMA Map Revision for the SouthEast Connector in Reno, Nevada: Presenter(s):** Mary Horvath, NCE; Joe Coudriet, City of Reno **Co-author(s):** Chakri Malakpet, CH2M/Jacobs

2:30 pm - 3:50 pm TECHNICAL SESSION: Levees – Floodplain Rehabilitation and Reuse

Location: Grand 5

Session Chair:

- **Southport Setback Recreational Trail: Presenter(s):** Tom Chapman, HDR Engineering, Inc.; Ric Reinhardt, MBK Engineers; Doug Brown, Douglas Environmental; Derek Larsen, Larsen Wurzel and Associates
- **Floodplain Rehabilitation for Multiple Species on the Fringe of the Delta: Maximizing Ecological Function and Mitigation Credits: Presenter(s):** Chris Bowles, cbec eco engineering **Co-author(s):** Sam Diaz and John Stofleth, GEI Engineering; Emily Tozzi and Vance Howard, West Sacramento Area Flood Control Agency; Paul Dirksen
- **An Active Regional Flood Control Structure For Optimum Community Benefit: Presenter(s):** Andrew Ronnau, PhD, PE, PACE

2:30 pm – 3:50 pm TECHNICAL SESSION: Channel Rehabilitation

Location: Grand 6

Session Chair:

- **Developing the Elder Creek Channel Rehabilitation Project: Presenter(s):** Todd Hillaire, CA DWR **Co-author(s):** Julia Delphia, CA DWR
- **Erosion versus Stabilization: The Fight for Seymour Ditch: Presenter(s):** Christine Davis, PE, PH, NCE **Co-author(s):** Franz Haidinger, NCE

BREAK

3:50 pm - 4:00 pm

WEDNESDAY CONCURRENT SESSIONS (CONT'D.)

4:00 pm – 5:30 pm

4:00 pm - 5:30 pm PANEL: INVESTING IN CALIFORNIA’S FLOOD FUTURE - FROM CONTROVERSY TO COMMITMENT

Moderator: Jason Sidley, Program Manager, DWR Statewide Flood Management Planning Program

Location: Grand 1

California’s floodplain managers and policy leaders may agree that the state’s flood infrastructure needs attention, but the consensus ends there. How will state and local agencies fund long-term flood investment needs? And how will we secure the best value for investment in flood management? Attend this session to hear from a panel of experts – and



“Sustainability in the Face of Change”

PRELIMINARY CONFERENCE PROGRAM
SEPTEMBER 4-7, 2018
THE ATLANTIS, RENO, NV

participate in an interesting discussion – about prioritizing programs and projects, developing funding sources, and improving outcomes.

Panelists: Bill Edgar, President, Central Valley Flood Protection Board
Kris Tjernell, Deputy Director, California Department of Water Resources
Mark Pestrella, Director, Los Angeles County Public Works (to be invited)
Norma Camacho, CEO, Santa Clara Valley Water District (to be invited)

4:00 pm – 5:30 pm PANEL: AGRICULTURAL FLOODPLAIN MANAGEMENT

Location: Grand 3

Moderator: Bruce Bender, ASFPM

FEMA’s draft policy and guidance document, if written and available for public comment; NFIP Reauthorization/Reform and Ag Structures Legislation and California Agricultural update

Panelists: Larry Larson, ASFPM
Scott Shapiro, Downey Brand
Sergio Vargas, Ventura County

4:00 pm – 5:30 pm: PANEL: DAM SAFETY SESSION 2 - LIES, DAM LIES, AND STATISTICS: DAM INUNDATION MAPPING TALES FROM THE REAL WORLD

Location: Grand 4

Moderator: John Moynier

The much-used quote regarding “lies, damned lies, and statistics” has a parallel in terms of the real-world compliance with the recent SB 92 dam inundation mapping legislation. While the code itself is pretty straightforward, the application is anything but. When most people think of a dam, we imagine a majestic sweep of concrete raising from the river to the sky, but not all dams are alike. From the public’s perspective, the threat of a failure of such a dam is clear, but what about other facilities that fall under the jurisdiction of the Division of Safety of Dams and need to comply with the revised regulations? This panel will look at the real-world challenges faced by unique case studies, including dry basins, below-grade pump-storage and below-ground reservoirs.

Panelists: Mujahhid Chandoo, PE, Michael Baker International, Inc.
John Moynier, Michael Baker International, Inc.
Mark Seits, HDR Engineering, Inc.
Marty Teal, WEST Consultants, Inc.

4:00 pm – 5:30 pm Emerging Professionals and Mentor/Mentee Kick-off Session

Location: Grand 7

Moderator: Megan LeRoy

Calling all emerging floodplain managers with less than 10 years of experience in floodplain management and mentors! Please join us for an interactive conversation with ASCE National President Kristina Swallow regarding mentorship and professional development. Come and learn about our new Emerging Professionals Committee and be a voice for emerging professionals in floodplain management.

This is a kick-off for our new Emerging Professionals Mentor/Mentee program.

4:00 pm – 5:30 pm PANEL: FLOOD TO DROUGHT, DROUGHT TO FLOOD

Location: Emerald ABC

Moderator:

In recent years, new extremes have been observed in precipitation, snowpack, runoff, temperature, and sea level, causing notable impacts on resource management and infrastructure in California. Historically, the Department of Water Resources



(DWR) has relied upon its diverse patchwork of observing systems, as well as data collection activities by federal, State, and local partners. The result has been a network of observing systems and associated data with varying levels of functionality for use in broader resource management initiatives. In the next five years, the Strategic Monitoring Initiative will transform the structure and support of real-time hydrologic monitoring to support integrated water management, including emergency response to the new extremes. This multi-agency, collaborative effort will provide advanced in-situ, airborne, and satellite observations that can be utilized by forecasting and operational decision support applications, as well as planning and assessment activities.

Invited Panelists: Michael Anderson, Ph.D., P.E., California State Climatologist, CA DWR
David Rizzardo, P.E., Chief Snow Surveys Section, CA DWR
Thomas Painter, Ph.D., Principal Investigator Airborne Snow Observatory program, NASA
JPL

4:00 pm – 5:30 pm TECHNICAL SESSION: Integrative Flood Forecasting Models and Tools

Location: Grand 2

Session Chair:

- **Flood Forecasting in Real Time Using Modern Hydrodynamic Tools and Collaborative Science:** **Presenter(s):** Mitchell Blum, HDR Engineering, Inc. **Co-author(s):** Tim Bardsley
- **Merced Irrigation District Hydrologic and Hydraulic Optimization Model:** **Presenter(s):** Bibek Joshi, Dewberry Engineers **Co-author(s):** Ted Cassidy and Sam Crampton, Dewberry Engineers; Marco Bell, Merced Irrigation District
- **X—Banding the Bay Area’s Real-Time Rainfall Monitoring and Storm Forecasting Capabilities:** **Presenter(s):** Emily Zedler, Santa Clara Valley Water District **Co-author(s):** Haonan Chen, Ph.D., Colorado State University- Fort Collins- Electrical and Computer Engineering, Chandrasekar Venkatachalam, Ph.D., Colorado State University- Fort Collins- Electrical and Computer Engineering, Rob Cifelli, PhD, NOAA – Hydrometeorology Modeling and Applications Team

4:00 pm – 5:30 pm TECHNICAL SESSION: Tools to Improve Stormwater Management

Location: Grand 5

Session Chair:

- **“Living” GIS Database – A Digital Twin Foundation for Las Vegas Valley Watersheds:** **Presenter(s):** Harshal Desai, PE, CFM, Atkins North America; Andrew Trelease, PE, CFM, Clark County Regional Flood Control District
- **Accuracy vs. Consistency: A Dilemma in Stormwater Master Planning:** **Presenter(s):** Matthew Wilkinson, PE, CFM, Atkins North America, Brian Rowley, PE, CFM, Clark County Regional Flood Control District
- **Using GIS to Improve Agency Transparency in Developing Capital Improvement Plans for Flood Control Projects:** **Presenter(s):** Rebecca Kinney, PE, Michael Baker International **Co-author(s):** Penny Lew, PE CFM, OC Public Works Floodplain Management

4:00 pm – 5:30 pm TECHNICAL SESSION: Stream Restoration Highlights and Pitfalls

Location: Grand 6

Session Chair:

- **Process-based restoration to benefit juvenile salmonids on the Lower Yuba River: The Hallwood Side Channel and Floodplain Restoration Project:** **Presenter(s):** April Sawyer, cbec eco engineering, inc. **Co-author(s):** Chris Hammersmark, Sam Diaz, Matthew Weber, Jon Parsons, Paul Cadrett, MaryKate Swenarton, Joe Merz, Kirsten Sellheim, Philip Colombano, Michael Beakes, Rachel Hutchinson



“Sustainability in the Face of Change”

PRELIMINARY CONFERENCE PROGRAM
SEPTEMBER 4-7, 2018
THE ATLANTIS, RENO, NV

- **San Pitch River Restoration: Reclamation in Agricultural Lands One Reach at a Time:** **Presenter(s):** Ben Willardson , PhD, PE, D.WRE, QSD/QSP, ENV SP; John Saunders; Anthony Steinfeldt, PE
- **Planning and Implementation Lessons Learned from an Award-Winning Urban Stream Restoration: Cordova Creek Naturalization Project:** **Presenter(s):** Sam Diaz, PE, cbec eco engineering, inc. **Co-author(s):** Chris Bowles, PhD, PE, cbec eco engineering, inc.

Grand Reception and Networking
Exhibit Hall
5:45 pm-7:45 pm

DRAFT



Thursday, September 6, 2018

7:00 am – 7:50 am CALIFORNIA FLOOD MANAGEMENT ENTITIES PARTNERSHIP MEETING

Location: Grand 6

Please join us for an inaugural conversation about whether California-based flood control agencies should be speaking with a common voice on State and Federal issues. While many different organizations exist around the state, none covers the State completely and we may be losing an opportunity to speak with one voice during this changing time with constrained resources. The conversation will explore common issues related to USACE, FEMA, ESA, NEPA/CEQA, etc and how we can work together more effectively. For more information, please join us or contact Scott Shapiro at sshapiro@downeybrand.com or Ric Reinhardt at Reinhardt@mbkengineers.com.

7:30 am - 5:00 pm **Registration – Grand Foyer**

7:30 am - 8:25 am **Continental Breakfast – Exhibit Hall**

MEET THE FMA BOARD

8:00 am - 9:00 am

Location: Grand 7

Grab your continental breakfast and bring it to the meeting with you. Meet your Board of Directors and Executive Director.

THURSDAY CONCURRENT SESSIONS

9:00 am – 10:30 am

9:00 am – 10:30 am PANEL: WE ALL LIKE THE MUSIC, BUT CAN WE PAY THE PIPER? LONG-TERM FUNDING FOR FLOOD MANAGEMENT

Location: Grand 1

Moderator: Betty Andrews, PE, Environmental Science Associates

From major state flood management systems to local stormwater facilities, managing flood waters requires investment, whether the fix is installing infrastructure or purchasing lands. Some benefits are very localized, while others are quite dispersed. How can the rising cost of construction, as well as ongoing OMR&R needs, be addressed using available or emerging funding tools? What options are available for different types of agencies, projects, and circumstances? What are the factors to consider in selecting a pathway, the pitfalls to avoid, the new avenues to explore? This panel will explore the issues around funding flood projects with case studies, advice, and novel ideas worth considering.

Panelists: Abigail Seaman, Bartle-Wells
Derek Larsen, Larsen Wurzel & Associates
Jeremy Sokulsky, Environmental Incentives
Samantha Medlock, Willis Towers Watson
Jay Aldean, Truckee River Authority (Invited)

9:00 am - 10:30 am PANEL: CALIFORNIA DEPARTMENT OF WATER RESOURCES TRIBAL

Location: Grand 2

Moderator: Anecita Agustinez, Tribal Policy Advisor



“Sustainability in the Face of Change”

PRELIMINARY CONFERENCE PROGRAM
SEPTEMBER 4-7, 2018
THE ATLANTIS, RENO, NV

Panelists: Tim Nelson, Tribal Liaison
Nevada State Tribal Liaison
USACE Tribal Liaison

The CA DWR Tribal Panel will update the current DWR programs and projects focusing on the Tribal engagement and consultation processes. The panel will discuss the incorporation of new CEQA laws, Tribal outreach, and working with Tribes to protect their ancestors. Following the CA Natural Resources Agency and CA DWR Tribal Policies, Tribal consultation is a mandatory component of project management. Building trust and relationships with tribes is critical to meeting timelines, Tribal consultation requirements, and providing the opportunity for Tribes to monitor construction activities. The panel will also look at Nevada State Tribal engagement and some of the issues in Nevada.

9:00 am - 10:30 am PANEL: DAM SAFETY SESSION 3 - BRIDGING THE GAP BETWEEN DAM SAFETY AND FLOODPLAIN RISK MANAGEMENT

Location: Grand 4

Moderator: Michael Mierzwa, P.E., Flood Management and Dam Safety Policy Advisor, CA DWR

What is becoming more apparent, is the new trend across the United States for the need to bridge the gap between dam safety and floodplain risk management. Can an EAP plan replace an FPM plan, and why not? There are five state regulated dams within the City of Simi Valley watershed managed by three separate owners; the Calleguas Mutual Water District, the County of Ventura and a private homeowners association (Sinaloa Lake HOA). And a significant portion of the City's population lies below these dams. Once the City became aware of SB 92 (see Sessions 1 & 2), they recognized the need to coordinate the mapping and emergency planning efforts of these three entities; especially for the small Sinaloa Lake HOA that had no mapping or emergency action plan.

City staff reached out to the Cal DWR and CalOES for guidance and assistance. Cal DWR in turn reached out to FEMA to initiate a Collaborative Technical Assistance (CTA) project. While the City of Simi Valley was the pilot community for the CTA, downstream stakeholders impacted by dam failure inundation were also invited to participate including: three cities, a state university, the county unified school district, a county airport and a naval air station. The panel will discuss community implementation of dam inundation emergency planning into their floodplain risk management. FEMA's CTA is one example of bridging the gap between dam safety and floodplain risk management.

Panelists: James Demby, Jr., Senior Technical and Policy Advisor, FEMA-HQ, Washington, D.C
Eric Koch, P.E., Deputy Director Flood Management and Dam Safety, CA DWR
Tina Curry, Deputy Director of Planning, Preparedness and Prevention, Cal OES
Shweta Chervu, PE, CFM, Advanced Planning Section Manager, County of Ventura
Brent Siemer, Deputy Public Works Director, City of Simi Valley
Edwin Matsuda, State Dam Safety Engineer, Hawaii Department of Land and Natural Resources (Tentative)

9:00 am – 10:30 am PANEL: PERFORMANCE TRACKING: SECURING SUSTAINABLE FUNDING FOR MANAGEMENT ACTIONS WITHIN THE CENTRAL VALLEY

Location: Emerald ABC

Moderator: Eric Tsai, CA DWR

Following the adoption of the 2008 Central Valley Flood Control Act (CA), the Department of Water Resources (DWR) was tasked with developing a flood management plan to reduce flood risk within the Central Valley. With the completion of 2012 Central Valley Flood Protection Plan, and subsequent update in 2017, DWR has outlined actions, and defined needs to accomplish the overlying of flood risk reduction. One of the main focuses is establishing sustainable funding.

DWR has begun the process to develop a Performance Tracking information to seek sustainable funding. The Performance Tracking effort will explore baseline conditions for both flood control infrastructure and ecosystem condition and track changes with respect to project implementation and conditional changes. Additionally, this effort will serve to inform and bolster



“Sustainability in the Face of Change”

PRELIMINARY CONFERENCE PROGRAM
SEPTEMBER 4-7, 2018
THE ATLANTIS, RENO, NV

funding requests to the Department of Finance, state legislature, project stakeholders and add additional transparency during budget analysis specific to project implementation.

Panelists: Sami Nall, CA DWR
Lori Clamurro-Chew, CA DWR
Jessica Ludy, CFM – ESA
Jay Aldean, Truckee River Authority

9:00 am - 10:30 am TECHNICAL SESSION: Climate Change Analysis and Resilience - Riverine

Location: Grand 3

Session Chair: Om Prakash, WEST Consulting, Inc.

- **Time is of the Essence – Assessing Climate, Change, and Sustainability:** **Presenter(s):** Michael Nowlan, PE, CFM, Wood Rodgers, Inc.
- **Hydraulic Impacts Of 2017 CVFPP Climate Change Predictions On The Lower San Joaquin River:** **Presenter(s):** Michael Pantell, Peterson Brustad
- **Projected Changes In Flood Hydrograph Characteristics Of Sacramento And San Joaquin Valley -Major Watersheds Under Climate Change:** **Presenter(s):** Mahesh Gautam, CA DWR **Co-author(s):** Tapash Das and Armin Munévar, CH2M (Currently Jacobs)

9:00 am - 10:30 am TECHNICAL SESSION: Stream Risk Assessment For Maintenance Issues

Location: Grand 5

Session Chair: John Moynier, Michael Baker International, Inc.

- **Estimating Hydraulic Roughness for Stream Maintenance Guidelines:** **Presenter(s):** Greg Meamber, SCVWD, Christie Beeman, ESA, Ken Schwarz, Horizon
- **City of Livermore Stream Maintenance Program– First Year of Implementation including Routine Maintenance, Storm Damage Repair and Ongoing Watershed-wide Public Stewardship and Integrated Watershed Management:**
Presenter(s): Pamela Lung, PE, CFM, City of Livermore
- **Rapid Risk Assessment of Potential Stream Erosion Near Critical Public Utilities:** **Presenter(s):** Dragi Stefanovic, HDR Engineering, Inc. **Co-author(s):** Dean Gipson , PE, HDR Engineering, Inc.; Christina Paddack , PE, City of San Diego

9:00 am - 10:30 am TECHNICAL SESSION: Flood After Fire

Location: Grand 6

Session Chair: Nina Oakley, Desert Research Institute

- **Floods After Fires – The Complicated Relationship Between Atmospheric Rivers and Debris Flows in Southern California:** **Presenter(s):** John Dumas, NWS Los Angeles/Oxnard
- **Rocky Creek Post Wildfire Debris Flooding along Palo Colorado Road in Big Sur, California:** **Presenter(s):** Alex Yescas, PE, CFM, ENV SP, HDR Engineering, Inc. **Co-author(s):** Frank Lopez, PE, CFM, QSD, Harris and Associates; Enrique Saavedra, PE, TE, County of Monterey

9:00 am - 10:30 am TECHNICAL SESSION: Stream Improvements And Funding Flood Control

Location: Grand 7

Session Chair:

- **Navigating the Dynamic Stakeholder, Contractor and Regulatory Landscape to Improve Urban Streams: A case study of the City of Fortuna’s Rohner Creek Flood Control, Seismic and Habitat Improvements Projects:**



Presenter(s): Brett Vivyan, PE, GHD **Co-author(s):** Merritt Perry, PE, City of Fortuna

- **Mountain Creek Stream Bank Restoration – A Collaborative Sustainable Success Story:** **Presenter(s):** Jeff Hoilman, PE, CPESC, CPSWQ, Propex Operating Company, LLC
- **Flood Control and Stormwater Funding in California:** **Presenter(s):** Daniel Schaaf, PE, and Tim Seufert

9:00 am - 10:30 am TECHNICAL SESSION: Flood Risk Assessment

Location: Treasures BCD

Session Chair: Chris Williams, CA DWR

- **Charlotte-Mecklenburg Flood Risk Assessment and Risk Reduction Plan:** **Presenter(s):** Timothy J. Trautman, PE, CFM, Charlotte-Mecklenburg Storm Water Services
- **Levee Ready Columbia (LRC) Risk Informed Decision Making Process:** **Presenter(s):** Scott Vose, Tetra Tech **Co-author(s):** Kevin Coulton, Program Manager, Tetra Tech, Colin Rowan, Levee Ready Columbia, MCDD
- **Hazus: More Than a Loss Estimator – Using Hazus as a Tool for Drainage Master Planning:** **Presenter(s):** Geoff Brownell, PE, CFM, Michael Baker International **Co-author(s):** Andrew Chill, PE, CFM, Michael Baker International

Break in Beacon Exhibit Hall

10:30 am - 11:00 am

THURSDAY CONCURRENT SESSIONS (CONT'D.)

11:00 am – 12:30 pm

11:00 am - 12:30 pm FMA ANNUAL COASTAL COMMITTEE MEETING

Moderator: Vince Geronimo, AECOM

Location: Grand 1

The FMA Coastal Issues Committee (CIC) meets annually to foster communication and dialogue and strengthen working relationships among the professionals engaged in managing and/or protecting coastal floodplains and resources. This year, the CIC will have a full 1.5 hour session, offering more time for participants to collaborate - sharing coastal information, resources, and educational opportunities, and discussing technical concerns or other critical coastal flood risk and floodplain management issues. The CIC has invited representatives from local, regional, state and Federal agencies to provide updates on their coastal program or services milestones, provide policy reminders, or share information on upcoming meetings and events. *All are welcome.*

11:00 am - 12:30 pm PANEL: MAKING PROGRESS ON S2S PRECIPITATION FORECASTING

Location: Grand 2

Moderator: Jeanine Jones, CA DWR

This panel will cover:

- Legislative framework & programmatic activities in the West
- Expanding CA's observing system for extreme precip and assimilating the research observations
- Experimental AR forecasts for DWR
- Results of WY 2018 experimental AR aircraft research flights

Panelists: Jeanine Jones, CA DWR
Mike Anderson, CA DWR



“Sustainability in the Face of Change”

PRELIMINARY CONFERENCE PROGRAM
SEPTEMBER 4-7, 2018
THE ATLANTIS, RENO, NV

Mike DeFlorio, NASA JPL
Marty Ralph, Scripps

11:00 am - 12:30 pm PANEL: NATURE’S PLACE IN ENGINEERING- ECOSYSTEM RESTORATION FOR FLOODPLAIN RESILIENCY

Location: Grand 4

Moderator: Nicole Goehring, Nevada Division of Water Resources

Ecological approaches to floodplain management work with nature and prioritize functional ecosystems, leading to projects that provide critical services during flood events. Traditional structural engineering approaches, on the other hand, are mostly hazard-focused and interrupt natural processes by changing flow patterns over space and time, in turn affecting native species that have adapted to historical conditions. Allowing for natural river processes, such as floodplain inundation and channel meander migration, benefits native species populations while also reducing flood risks. This panel will explore approaches, challenges, and benefits of ecological river restoration through examples from northern California and western Nevada. The scale of projects and implementation mechanisms to be discussed by this panel vary widely. Common constraints and unique challenges presented by policies, funding sources, existing development, land ownership, stakeholder views, and watershed characteristics will be discussed.

Panelists: Kris Tjernell, Deputy Director, CA DWR
Chris Bowles, cbec, inc. Eco Engineering
Mickey Hazelwood, The Nature Conservancy
John Cain, American Rivers
Ryan Luster, The Nature Conservancy

11:00 am - 12:30 pm WORKSHOP: CRS 101 – INTRODUCTION AND BASICS TO THE COMMUNITY RATING SYSTEM

Location: Grand 7

Instructor: Constance Lake, CFM, ISO/CRS Specialist

This workshop will cover the requirements to join the Community Rating System (CRS) Program, an overview of the prerequisites and documentation requirements for most of the CRS activities most commonly receiving credit when a community joins the program, and the CRS points that a community can work towards to achieve a CRS Rating. The main focus of this workshop will be an overview of the 2017 CRS Coordinator’s Manual. The CRS provides annual flood insurance premium discounts in those communities that implement floodplain management activities above and beyond the minimum requirements of the National Flood Insurance Program (NFIP). The CRS has been proven to help motivate elected officials and residents to support flood protection programs. To date 84, of California’s 518 NFIP communities have joined the CRS. California CRS communities are saving their residential and business property owners more than \$14 million each year.

11:00 am - 12:30 pm PANEL: KEEPING UP WITH THE NFIP

Location: Emerald ABC

Moderator: John Powderly, AICP, CFM

Wow, another lively and formative year! As the National Flood Insurance Program (NFIP) celebrates its 50th anniversary, please join us for an interactive discussion on the current state of the program, hot topics, new tools, strategies, and steps forward. Learn first-hand how FEMA is transforming the NFIP and how it will impact what you do. Key topics will include NFIP reauthorization, the customer experience, simplified rating, policy forms, claims and new data analytics. The panel will also discuss changes to the other major components of the NFIP including risk communications and hazard mapping. We will explore the latest on FEMA’s Risk Mapping, Assessment and Planning (Risk MAP) initiative.

Panelists: Edith Lohmann, Flood Insurance Specialist, FEMA Region IX
Eric Simmons, Senior Engineer, FEMA Region IX
Rhonda Montgomery, FEMA – HQ, Deputy Flood Insurance Advocate
Bunny Bishop, Nevada State Floodplain Manager/State NFIP Coordinator



11:00 am - 12:30 pm TECHNICAL SESSION: Climate Change Analysis and Resilience – Coastal

Location: Grand 3

Session Chair: Eric Tsai, CA DWR

- **Open Pacific Coast Study Review and Climate Change Implications:** **Presenter(s):** Weixia Jin PhD, PE, Moffatt & Nichol, **Co-author(s):** Rob Duboux Esq, PE, City of Malibu; Qing Wang, PE and Aaron Holloway, PE, Moffatt & Nichol
- **The Importance of Pilot Projects for Sea Level Rise Adaptation using Natural Shoreline Approaches with a Focus on the Eastern Marin Shoreline:** **Presenter(s):** Roger Leventhal, PE, Marin County Flood Control
- **High Tides and Sea Level Rise in San Francisco Bay: A Regional Challenge:** **Presenter(s):** Rohin Saleh, PE, Alameda County Flood Control and Water Conservation District

11:00 am - 12:30 pm TECHNICAL SESSION: Blowing the Lid off LID – Water Quality Solutions and Problems

Location: Grand 5

Session Chair

- **Storm Drain System Trash Capture Device Hydraulic Loss and Flooding:** **Presenter(s):** Caitlin J. Gilmore, PE, CPSWQ, QSP/QSD and Glen Anderson, PE, Schaaf & Wheeler
- **How to Retrofit School Campuses with Low Impact Development and Resiliency Features:** **Presenter(s):** Jennifer Walker, Watearth, Inc.

11:00 am - 12:30 pm TECHNICAL SESSION: Flood After Fire – Thomas Fire

Location: Grand 6

Session Chair: Brent Siemer, Deputy Public Works Director, City of Simi Valley

- **Thomas Fire and the 1-9 Debris Flow Response:** **Presenter(s):** Thomas D. Fayram, PE, CFM, County of Santa Barbara **Co-author(s):** Jonathan S. Frye, PE, CFM, Santa Barbara County Flood Control & Water Conservation District
- **Thomas Fire Risk Assessment And Vulnerability Mapping:** **Presenter(s):** Steve Parker, Tetra Tech **Co-author(s):** Sergio Vargas, VCWPD
- **Santa Barbara Post-Disaster Recovery Mapping: Fire to Flood to Maps in 6 Months:** **Presenter(s):** Iwan Thomas, PE, MS, Atkins **Co-author(s):** Eric Simmons, FEMA Region IX; Jon S. Frye, PE, CFM, Santa Barbara County Flood Control & Water Conservation District

11:00 am - 12:30 pm TECHNICAL SESSION: Using Urban Detention and Small Dams

Location: Treasures BCD

Session Chair:

- **Reducing Flooding Potential At Small Irrigation Dams:** **Presenter(s):** Owen Kubit, PE, PG, CHG, CFM, Provost & Pritchard Consulting Group
- **Putting Stormwater Detention to Work: It isn't Just for Flood Control Anymore:** **Presenter(s):** Jennifer Walker, Watearth, Inc.
- **Computational Fluid Dynamics Analysis Of A Supercritical Side Weir Flow For The Modification Of An Urban Detention Basin:** **Presenter(s):** Filippo Bressan, PhD, EIT, WEST Consultants, Inc. **Co-author(s):** Martin Teal, PE, PH, D.WRE, F.ASCE, WEST Consultants, Inc.



Buffet Lunch and Networking in the Exhibit Hall
12:30 pm-2:00 pm

THURSDAY CONCURRENT SESSIONS
2:00 pm – 3:30 pm

2:00 pm - 3:30 pm PANEL: FLOOD MANAGED AQUIFER RECHARGE (Flood-MAR)

Location: Grand 1

Facilitator: Jim Wieking, CA DWR

Please join DWR in a workshop-style session to explore opportunities to integrate flood and groundwater management to achieve multiple benefits through Flood-MAR. Flood-MAR is an integrated and voluntary resource management strategy that uses flood water resulting from, or in anticipation of, rainfall or snowmelt for managed aquifer recharge (MAR) on agricultural lands and working landscapes, including but not limited to refuges, floodplains, and flood bypasses. DWR will provide an overview of Flood-MAR, describe conceptual studies on the Merced River Basin, and solicit feedback on maximizing flood benefits and regional strategies.

Panelists: David Arrate, CA DWR
Romain Maendly, CA DWR
Hicham Eital, Merced Irrigation District

2:00 pm - 3:30 pm PANEL: INNOVATIVE TECHNIQUES TO ACHIEVE GOALS

Location: Grand 2

Moderator: Debra Bishop, H.T. Harvey and Associates

Creative approaches can help achieve a wide variety of flood management-related goals. Topics discussed by this panel include the latest in remote sensing related to weather predicting technology; the use of scent detection dogs for endangered species detection for O&M; social media use for disaster risk reduction and the mitigation planning process; and using drones for monitoring emergency activity and construction.

Panelists: Robyn Powers, H. T. Harvey & Associates
Marty Ralph, University California, San Diego
David Pesavento, CA DWR
Suzanne L. Frew, The Frew Group

2:00 pm - 3:30 pm PANEL: 2D OR NOT 2D? THE FUTURE OF 2D MODELING AND MAPPING...WHAT'S COMING NEXT?

Location: Grand 4

Moderator: Cameron Jenkins, Atkins

Come to the session to continue the discussion from last conference. The panel will discuss the current state of 2D modeling and mapping, future advancements, and how we can prepare ourselves for the future.

Panelists: Alan Zundel, Aquaveo
Jim O'Brien, FLO-2D Software, Inc.
Mark Forest, HDR Engineering, Inc.
Marty Teal, WEST Consultants, Inc.
Chris Huxley, BMT WBM

2:00 pm - 5:30 pm WORKSHOP: CRS ADVANCED WORKSHOP



Location: Grand 7

Instructor: Constance Lake, CFM, ISO/CRS Specialist

This workshop will cover in greater detail specific Activities that most advanced class CRS communities apply for. This will include some elements within the 2017 CRS Coordinator’s Manual from Activities 330, 370, 430, 450 and the 600 series. Other Activities and elements can be considered if time allows and participants are willing. Attendees are encouraged to ask technical questions pertaining to specific CRS Activities, share their experiences and ideas on implementing CRS Activities, and suggest how the CRS Program might be improved to encourage greater participation in California, Hawaii, and Nevada.

2:00 pm - 3:30 pm PANEL: PROJECT SUPPORT AND GRANTS

Location: Emerald ABC

Moderator: Janel Woodard, NV SHMO

A look at 2017 and 2018 Region 9 Presidential Disaster Declarations from floods to wildfires and assistance available to communities including: FEMA’s Hazard Mitigation Assistance (HMA) grant programs including the Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM) Program and the Flood Mitigation Assistance (FMA) Program. We’ll also include discussions on the USACE planning assistance and Silver Jackets assistance programs and who’s eligible to apply, program application processes, requirements, and project types that are eligible for these various grant funding opportunities.

Panelists: Philip Wang, FEMA – Region IX, Mitigation Division
Steven Larson, Program Manager Pre-Disaster Mitigation and Flood Mitigation Assistance Programs, Cal OES
Rachael Orellana – USACE, Flood Risk Program Manager, Sacramento District, Planning Division

2:00 pm - 3:30 pm TECHNICAL SESSION: Extreme Flood and Drought Assessment

Location: Grand 3

Session Chair:

- **Lake Mendocino and Lake Sonoma Master Plan “Re-Visioning”:** **Presenter(s):** Margaret Engesser, U.S. Army Corps of Engineers **Co-author(s):** Hunter Merritt, U.S. Army Corps of Engineers, Silver Jackets
- **SB-5, Q200 Goal is Great, but Don’t Forget the Rural Delta Legacy Communities:** **Presenter(s):** George H. Booth, PE, CFM, Sacramento County Floodplain Management Section; Jeffrey E. Twitchell, PE, GEI Consulting, Inc.
- **Flood Damage Assessment for the Guadalupe River Basin using HEC-FIA Model:** **Presenter(s):** Om Prakash, PhD, PE, WEST Consultants, Inc. **Co-author(s):** Allen Avance and Michael Schwind, USACE; David Curtis, WEST Consultants, Inc.

2:00 pm - 3:30 pm TECHNICAL SESSION: Flood Insurance – Issues and Answers

Location: Grand 5

Session Chair: Maria Lorenzo-Lee, CA DWR

- **Private vs Federal Flood Insurance - What To Know. What To Ask.:** **Presenter(s):** Bruce Bender, CFM, Bender Consulting Services, Inc.
- **Floodplain Managers and Flood Insurance Questions:** **Presenter(s):** Amy Itschner, ANFI, PIAM, Aon National Flood Services
- **“Fictitious Community” Coordinates Multi-Jurisdictional CRS Program:** **Presenter(s):** Merna Leal, Santa Clara Valley Water District **Co-author(s):** Afshin Rouhani, Santa Clara Valley Water District

2:00 pm - 3:30 pm TECHNICAL SESSION: Dynamic Shorelines

Location: Grand 6

Session Chair: Wendy Wang, CA DWR



- **Review of San Francisco Bay Historic Coastal Levee Breach Progression and Impacts to Coastal Flooding:**
Presenter(s): Rohin Saleh, PE, Alameda County Flood Control and Water Conservation District **Co-author(s):** Matthew Powers, PE, GEI Consultants, Inc.
- **New Floodplains, Dynamic Shorelines and Climate Change: Coastal Resilience in Southern California:**
Presenter(s): Aaron Holloway, PE, Moffatt & Nichol
- **Financial Impact to Flood Control Projects using 1D and 2D Modeling Methods in South San Francisco Bay:**
Presenter(s): Matthew Powers, PE, GEI Consultants, Inc. **Co-author(s):** Rohin Saleh, PE; Alameda County Flood Control and Water Conservation District

Break in Exhibit Hall
3:30 pm - 4 :00 pm

THURSDAY CONCURRENT SESSIONS
4:00 pm - 5:30 pm

4:00 pm - 5:30 pm PANEL: SUSTAINABLE USE OF STORMWATER

Moderator: Mark Seits, HDR Engineering, Inc.

Location: Grand 1

Many agencies in the arid west have been looking at stormwater as a resource for decades. As a result, there has been a paradigm shift in the mindset of these agencies from trying to get rid of stormwater as efficiently as possible, to providing means to efficiently capture the stormwater and use it for multiple purposes. Projects have been implemented regionally, as well as at the neighborhood scale, and provide a rich source of data for future projects. The purpose of this panel session is to present the findings of four of these agencies: namely, Los Angeles County Department of Public Works, Orange County Public Works, San Diego County Department of Public Works, and Carson City Public Works.

Panelists: Paul Alva, P.E. – Assistant Deputy Director, Los Angeles County Public Works, CA
James Fortuna – Environmental Resources, Orange County Public Works, CA
David Pohl, PhD, P.E., LEED AP – ESA Associates
Robb Fellows, P.E. – Chief Stormwater Engineer, Carson City Public Works, NV

4:00 pm - 5:30 pm WORKSHOP: COMMUNICATION THROUGH GAMIFICATION

Moderator: David Pesavento, CA DWR

Location: Grand 2

Communicating risks in a way that people can retain the information can be challenging. One way that some agencies have been successful is through the use of games. This panel will investigate the use and value of video and board games - in classrooms, meetings, workshops and at home - to educate the public and start the conversation on ways to prepare for and protect against floods. Three different perspectives to gamification will be shared, and there will be time to play some of the games in person. Come see if you can beat the top score!

Panelists: Hunter Merritt, USACE
TBD, West Sacramento
Tim Robinson, University of Nevada, Reno
Suzanne L. Frew, The Frew Group

4:00 pm -5:30 pm PANEL: APPROACHES AND PERSPECTIVES ON REGIONAL PLANNING AND PERMITTING FOR MULTI-BENEFIT FLOOD PROJECTS AND O&M

Location: Grand 4



Moderator: Laura Hollender, DWR/OCC

Approaches to regional planning and permitting continue to be refined at both the state and federal levels. On the state side, several pilot studies are underway in California to implement AB 2087, “Regional Conservation Investment Strategies,” enacted in 2016. AB 2087 provides for the creation of regional conservation strategies that advance state goals for public infrastructure or forestry and conservation, and which can be used to guide project development and conservation. Additionally, the California Department of Water Resources is undertaking multiple regional permitting efforts for multi-benefit flood projects and O&M. At the federal level, the U.S. Army Corps of Engineers continues to refine its approach to issuing permits under the Rivers and Harbors Act, Section 408. For example, the Corps has added a formalized process of multi-phased reviews. Panelists will describe these state and federal efforts and discuss lessons learned.

Panelists: Michael Jewel, U.S. Army Corps of Engineers
Jennifer Hobbs, U.S. Fish and Wildlife Service
Megan Nagy, RD 108
Scott Deal, CA DWR

4:00 pm - 5:30 pm PANEL: IMPORTANCE OF RISK COMMUNICATION IN FLOODPLAIN MANAGEMENT

LOCATION: Emerald ABC

Moderator: Chris Orrock, PAO, CA DWR

Communicating flood risk is a shared responsibility. FEMA approaches each of its mapping projects and community engagements with that in mind. Through the Risk MAP and Community Engagement and Risk Communication programs (CERC), FEMA has refined its strategy from technical to community-based engagement. This session will explore FEMA's latest resources and tools to help public-facing influencers and community leaders talk about risk more effectively, enhance their mitigation plans, and encourage citizens to better protect their properties and livelihoods. Additionally, we'll discuss the critical application of behavior science, the economic benefits of mitigation action, and how to communicate future conditions and changing risks.

Panelists: Peter Herrick, Jr., FEMA-HQ (Washington, D.C.)
Jessica Ludy, CFM, ASFPM Flood Risk Communication Committee Co-chair, Environmental Science Associates
Nevada Representative (TBD)
Jane Dolan, Central Valley Flood Protection Board Member

4:00 pm - 5:30 pm TECHNICAL SESSION: Dam Breach Modeling

Location: Grand 3

Session Chair: MD Haque, CA DWR

- **One Hurricane After Another.... So, Are My Dams OK? – Rapid Assessment of Potential Dam Failures in Puerto Rico following Hurricanes Irma and Maria:** **Presenter(s):** Cameron Jenkins, PE, Atkins **Co-author(s):** Edward G. Beadenkopf, PE, CFM, Atkins; James E. Demby, Jr., PE, National Dam Safety Program, FEMA; Shudipto Rahman, Risk Analysis Branch, FEMA Region II Mitigation Division
- **The Impact on Dam Breach Hydrographs With Reservoir Drainage Simulation:** **Presenter(s):** Jim O'Brien, PhD, PE, FLO-2D Software, Inc.
- **Creation of a Two-Dimensional Hydraulic Model to Develop Inundation Maps for the Chester Diversion Dam:** **Presenter(s):** Jeremy Hill, PE, CA DWR

4:00 pm - 5:30 pm TECHNICAL SESSION: Modeling Techniques and Their Impacts

Location: Grand 5

Session Chair: Amy Bindra, CA DWR

- **Dam Failure Impact Analysis – Comparing Traditional Analytical Methods and 2D Hydraulic Modeling:** **Presenter(s):** Mitchell Smith, BMT, Brisbane, Australia **Co-author(s):** Blair Filer and Chris Huxley, BMT, Brisbane,



“Sustainability in the Face of Change”

PRELIMINARY CONFERENCE PROGRAM
SEPTEMBER 4-7, 2018
THE ATLANTIS, RENO, NV

Australia; Michael Hughes, SunWater, Brisbane, Australia

- **2D Model Design Fundamentals. What 2D Mesh Resolution Is Necessary?:** **Presenter(s):** Chris Huxley, BMT, Brisbane, Australia
- **Recent Urban Flood Events: Required Details in Modeling, Mitigation, Adaptation, and Resilience:** **Presenter(s):** Noemi Gonzales-Ramirez, FLO-2D Software

4:00 pm - 5:30 pm TECHNICAL SESSION: New Tech – High Tech

Location: Grand 6

Session Chair:

- **Mobile Data Collection:** **Presenter(s):** Yuying Li and Marsha Leffert, HDR Engineering, Inc. **Co-author(s):** Jun Wang, HDR; Rowell Castro, Orange County Public Works; Robert C. McLean, Orange County Public Works
- **How Reno Surveyors are Using Drones for Water Resources:** **Presenter(s):** Clark Barlow, Atkins North America
- **Data Analytics: Tools for Improved Decision Making in Flood Risk Management:** **Presenter(s):** Chakri Malakpet, Jacobs

4:00 pm - 5:30 pm TECHNICAL SESSION: Predicting Sediment and River Changes

Location: Treasures BCD

Session Chair:

- **Fluvial Geomorphology in an Arid Environment: A Case Study:** **Presenter(s):** David T. Williams, PhD, PE, PH, CFM, CPESC, David T. Williams and Associates **Co-author(s):** Joanna Czarnecka, EIT, Watermia Consulting, LLC
- **2008 – 2017 Topographic Change Analysis and HEC-RAS 2D Modeling of the Lower American River:** **Presenter(s):** Matthew Weber, cbec eco engineering, inc. **Co-author(s):** Chris Bowles and Chris Hammersmark, cbec eco engineering, inc.; Tom Gohring, The Water Forum; Dan Tibbits, Sacramento Area Flood Control Agency
- **Hazards of Lot-Split Development, No Drainage Infrastructure, and Endless Sediment: Highlights from the Johnson Lane Area Drainage Master Plan, Douglas County, Nevada:** **Presenter(s):** Mike Kellogg, PG, CFM, GISP JE Fuller/Hydrology & Geomorphology, Inc. **Co-author(s):** Richard Waskowsky, PE, JE Fuller/Hydrology & Geomorphology, Inc.

THURSDAY DINNER RECEPTION AT BUNDOX BOCCEE

6:30 pm- 9:00 pm

Transportation is provided and will depart starting at 5:30 pm from the entrance of the hotel.



Friday, September 7, 2018

7:30 am – 8:25 am **Continental Breakfast** – Promenade

8:00 am – 9:00 am **Modeling and Mapping Committee Meeting**

Location: [Grand 7](#)

The FMA Modeling and Mapping Committee (MMC) meets annually to discuss modeling and mapping issues and strengthen working relationships among the professionals who do modeling and mapping of floodplains. This year, the MMC will discuss technical concerns and other modeling and mapping floodplain management issues, what was done over the past few years, and set goals for the upcoming year. *All are welcome.*

8:00 am - 12:30 pm

CFM Examination

Location: [Grand 6](#)

If you wish to take the CFM examination, you must register separately with ASFPM at <http://floods.org/> at least 3 weeks prior to the examination (fees apply). The CFM examination is scheduled for Friday, September 7, at 8:30 a.m. at this conference. Doors open at 8:00 am.

Exam Proctors: James Eto, CA DWR
Michael Ward, CA DWR
Garret Tam Sing, CA DWR

8:30 am – 12:30 am

Truckee River Tour – Meet at 8:20 am in the hotel foyer for transport

Historical Truckee River flooding has caused significant damages and disruption within the Truckee Meadows area which covers 10 miles from Idlewild Park in west Reno to Rainbow Bend in the lower Truckee Canyon. The field trip will visit several recently completed projects and a few projects that are under design and/or construction. We will stop by a few spots where flooding occurred to provide an overview of the Truckee Flood project and flood control issues faced by the community and local leaders. The tour will be narrated by Mr. Jay Aldean, Executive Director of Truckee River Flood Management Authority and Mr. Mickey Hazelwood, The Nature Conservancy. The field trip will make a loop that starts and ends at the conference hotel and will make stops at the following locations. A sack lunch will be provided for all participants (donated by Kleinfelder):

- Downtown Reno bridges
- Vista Narrows (east side Truckee Meadows)
- Truckee Meadows Ecosystem Restoration
- Reno-Sparks Indian Colony Levee and Flood Wall
- North Truckee Drain
- Lower Truckee River Canyon Ecosystem Restoration Projects



FRIDAY CONCURRENT SESSIONS

9:00 am – 10:30 pm

9:00 am – 10:30 am PANEL: GETTING THERE FROM HERE: The Road to ULOP Adequate Progress and ULDC Certification

Location: Treasure C

Moderator: Pro Mitra, MBK Engineers

In 2007, California Senate Bill 5 was passed “to strengthen the link between flood management and land use”. From this legislation, the “Urban Level of Flood Protection” (ULOP) guidance was developed for urban and urbanizing areas protected by the State Plan of Flood Control levees to comply with the required 200-year level of flood protection by 2025. Cities and urban/urbanizing communities in the Sacramento and San Joaquin river basins were required, by state law, to make a ULOP finding by July 1, 2016. For locations that do not currently meet ULOP requirements, an initial finding is required from the local flood management agencies to document the adequate progress made to date and identify the remaining efforts required to achieve ULOP by 2025. Implementation of achieving ULOP and meeting the requirements for the Urban Levee Design Criteria (ULDC) are not without its challenges, such as identifying and tracking progress for each ULOP and ULDC criteria, considering the sustainability of current analyses as performance criteria evolves, and managing and coordinating the independent review process. This panel will discuss the details and experiences of reporting adequate progress and achieving ULDC certification to meet 200-year flood protection.

Panelists: Dr. David Williams, DTW Associates
Zac Crawford, ENGEO
Claire Marie Turner, MBK Engineers

9:00 am - 11:00 am CALIFORNIA, NEVADA AND HAWAII SILVER JACKETS

Location: Emerald ABC

Silver Jackets Annual In Person Meeting

Have you wondered how you could get multiple agencies working together to support your community? If so, come to the Annual Silver Jackets In-Person Meeting to learn more about all the great things the California and Nevada Silver Jackets Teams are working on. We will discuss this year's accomplishments. We look forward to hearing what is important to you, and what you would like to see the team accomplish next year. We hope our colleagues in Hawaii will be able to make the meeting too, and that it will serve as inspiration to initiate their Silver Jacket's team.

Leads: Rachael Orellana and Hunter Merritt, USACE
Mary Jimenez and Maria Lorenzo-Lee, CA DWR

9:00 am - 10:30 am TECHNICAL SESSION: Multi-Objective Floodplain Management

Location: Grand 1

Session Chair: Mary Horvath, NCE

- **Achieving Integrated, Multi-Objective Floodplain Management through the Russian River Storm Water Resource Plan:** **Presenter(s):** Millicent Cowley-Crawford, PE, West Yost
- **Bottom-up Vulnerability Assessment and Adaptive Planning for Future Floods and Droughts in California:** **Presenter(s):** Mahesh Gautam, CA DWR and Romain Maendly, CA DWR **Co-author(s):** John Kucharski, USACE and Andrew Schwarz, CA DWR
- **Integrating Environmental Early in the Engineering Streamlines the Environmental Review:** **Presenter(s):** Jay Aldean, Truckee River Flood Management Authority; Betty Dehoney, HDR Engineering, Inc.

9:00 am - 10:30 am TECHNICAL SESSION: Calibration, Verification and Historical Analysis

Location: Grand 2

Session Chair: Chakri Malakpet, Jacobs



- **Recreating the Lodi Christmas Flood of 1955:** **Presenter(s):** Joseph E. Thomas
- **Flood Forecasting Methods and Tools - Bridging the Gap Between HEC HMS and Continuous Soil Moisture Accounting:** **Presenter(s):** David C. Curtis, PhD, F.EWRI, WEST Consultants **Co-author(s):** Luciana Cunha, PhD, WEST Consultants
- **How Accurate Is Your Spillway Rating Curve?** **Presenter(s):** Harvey Oslick, PE, CFM, CPSWQ, EnvSP, Wood Rodgers, Inc.

9:00 am - 10:30 am TECHNICAL SESSION: Floodplain Mapping Issues

Location: Grand 3

Session Chair: CA DWR

- **Prioritizing Re-Mapping and Analyses of Rivermouths in California Coastal Areas Following FEMA Region IX's Coastal Re-Study:** **Presenter(s):** Vince Geronimo, PE, CFM, AECOM; Ed Curtis, FEMA Region IX
- **Quantifying Floodplain Impacts in an Unsteady Flow and 2D Modeling Environment, Implications for 44 CFR 60.3:** **Presenter(s):** Mark Forest and Mitch Blum, HDR Engineering, Inc.
- **Floodplain Maps Ought to be Colorful:** **Presenter(s):** Yiguo Liang, CA DWR

9:00 am -10:30 am TECHNICAL SESSION: Planning for Climate Change

Location: Grand 5

Session Chair: Brady McDaniel, NHC

- **From Water Surface Elevations to City Productivity: Showing The Economic Value Of Becoming Resilient To Changing Climate:** **Presenter(s):** Stephen Bourne PE, Atkins Global
- **Climate Change Hydrology For Flood Management Planning:** **Presenter(s):** James Gregory, PE, Environmental Science Associates
- **TBD,** **Presenter(s):** Mike Anderson, CA DWR; David Rizzardo, CA DWR

9:00 am - 10:30 am TECHNICAL SESSION: Model Uncertainty and Calibration

Location: Grand 7

Session Chair:

- **Validating The Feather River Calibration With California-Nevada Centers/National Weather Service Flood Forecast Data Compared To Real Time Gage Data From The California Data Exchange Center (CDEC):** **Presenter(s):** MD Haque, CA DWR **Co-author(s):** Chris A. Ferrari and Chris Smith, GEI Consultants
- **Structure-Level Risk Assessment Using Monte Carlo Method Coupled With 2D Hydraulic Modeling:** **Presenter(s):** Cameron Jenkins, PE, Senior Engineer, Atkins **Co-author(s):** Siamak Esfandiary, PhD, PE, FEMA; Leo Kreyborg, PE, CFM, Atkins; Andrew Bonner, PE, CFM, AECOM,

BREAK
10:30 AM – 11:00 AM

FRIDAY CONCURRENT SESSIONS
11:00 am – 12:30 pm

11:00 am – 12:30 pm WORKSHOP: CRS USERS GROUP

Location: Grand 7

Moderator: Brent Siemer, CFM, Deputy Public Works Director, City of Simi Valley



CRS communities across the country have formed CRS Users Groups to share information about CRS activities and credits. These groups can also offer training opportunities. This workshop will be patterned after a typical (if there ever is one) CRS Users Group meeting. There will be opportunity for CRS Coordinators to share success stories and share “what works”. FMA, FEMA and ISO representatives will also be available to for networking and to provide assistance in locating resources. This will also be an opportunity to meet staff from other CRS communities in your area and perhaps form your own CRS Users Group.

Panelists: Dawn Pimentel, CFM, North Central CRS Users Group
Frank Navarro, CFM and Babak Kaderi, CFM, Santa Clara County CRS Users Group

FRIDAY CONCURRENT SESSIONS (CONT'D.)
11:00 AM – 12:30 PM

11:00 am - 12:30 pm TECHNICAL SESSION: Integrated Planning

Location: Grand 1

Session Chair:

- **Planning SMART(ly): Balancing the Level of Uncertainty - the Sweetwater Creek Approach:** **Presenter(s):** Sam Crampton, Dewberry
- **Busting the Silos: Eliminating Existing Bureaucratic Separations between Flood Control, Internal Drainage and Stormwater Management:** **Presenter(s):** John W. Bliss, PE, SCI Consulting Group **Co-author(s):** Jerry Bradshaw, PE, SCI Consulting Group
- **Overview of Watershed Planning in California:** **Presenter(s):** Mike Mierzwa, CA DWR

11:00 am – 12:30 pm TECHNICAL SESSION: Safety Model/Emergency Response

Location: Grand 2

Session Chair: Elizabeth Avelar, KSN, Inc.

- **Sustainable Tools and Communication Planning for Aiding Public Safety in a Flood Event:** **Presenter(s):** Kristy Chang, PE, Kjeldsen, Sinnock & Neudeck, Inc. **Co-author(s):** Dana Carey, Yolo County
- **Integrating Social Vulnerability and Flood Evacuation and Safety Modeling:** **Presenter(s):** John Pritchard, PE, CFM, Wood Rodgers, Inc.
- **The Case for Tolerable Risk Guidelines to Manage Flood Risk:** **Presenter(s):** Jessica Ludy, CFM, ESA **Co-author(s):** Lawrence H. Roth, PE, GE, Arcadis

11:00 am - 12:30 pm TECHNICAL SESSION: Reservoir Rules and Forecasting

Location: Grand 3

Session Chair: Tim Nelson, CA DWR

- **Real-time Ensemble Hydrological Forecasts for a 2017 Mock Operation Test of Forecast Informed Reservoir Operations of Lake Mendocino in Mendocino County, California:** **Presenter(s):** Chris Delaney, Sonoma County Water Agency **Co-author(s):** John Mendoza, Sonoma County Water Agency, Robert Hartman, Consultant
- **Under Extreme Hydrology: Rigid Reservoir Rules or Operational Discretion?:** **Presenter(s):** Sydney G. Weiss, Water Resources Graduate Program, Oregon State University **Co-author(s):** Robert Shibatani, The SHIBATANI GROUP, International
- **Seasonal Precipitation and Snowpack Forecasting Tool for California Reservoirs:** **Presenter(s):** Brady



“Sustainability in the Face of Change”

PRELIMINARY CONFERENCE PROGRAM
SEPTEMBER 4-7, 2018
THE ATLANTIS, RENO, NV

McDaniel, PE, NHC **Co-author(s):** Mariza Costa-Cabral, NHC, John Rath, Tetra Tech Research & Development,
Patty Dillon, NHC

11:00 am - 12:30 pm TECHNICAL SESSION: Resilience – Standards and Climate Change

Location: Grand 5

Session Chair:

- **A “100-year Floodplain Map” Is Not a Resiliency Plan. So, What’s Missing?:** **Presenter(s):** Paul Robinson, Jacobs **Co-author(s):** Jeremy Thomas, MEP, Mitchell Swanson and Chakri Malakpet, PE, CFM, Jacobs
- **Streamlining Hydrologic Prediction Processes Using New and More Accurate Techniques and Methods for the State of Nevada:** **Presenter(s):** Annje Dodd, HMC Engineering, Inc.

SAVE THE DATE

September 3-6, 2019

2019 FMA ANNUAL CONFERENCE

THE SHERATON

SAN DIEGO, CALIFORNIA



"Sustainability in the Face of Change"

PRELIMINARY CONFERENCE PROGRAM
SEPTEMBER 4-7, 2018
THE ATLANTIS, RENO, NV



SAVE THE DATE!
THE 2nd ANNUAL
SOUTHWEST EXTREME PRECIPITATION SYMPOSIUM
(SWEPSYM)
MARCH 27, 2019
UC SAN DIEGO, SCRIPPS INSTITUTE



“Sustainability in the Face of Change”

PRELIMINARY CONFERENCE PROGRAM
SEPTEMBER 4-7, 2018
THE ATLANTIS, RENO, NV



DRAFT