

# Arizona Floodplain Management Association

## Fall 2019 Conference



**Keynote Speaker – Frank Barrios**

### ***The Colorado River Flood of 1983***

- ❖ Former Hydrologist and Civil Engineer for the U.S. Bureau of Reclamation and the Arizona Department of Water Resources
- ❖ Central Arizona Water Conservation District Board of Directors from 2003 to 2006



**November 6-8, 2019**

**Yuma, Arizona**

### ***Pivot Point Conference Center and Hilton Garden Inn***

*Conference Cost: \$300, Includes Thursday Dinner (Additional Dinner Guests: \$35)*

310 N. Madison Avenue, Yuma, AZ 85364



Pivot Point Conference Center and Hilton Garden Inn

(Photo courtesy of Jack Moody)

**Note: Room rate of \$139 (plus taxes and fees) available at Hilton Garden Inn in Yuma, AZ**

**Reserve your room by calling (928) 783-1500**

**Identify yourself as part of the *Arizona Floodplain Management Association* Conference (AZFMA)**

**Cutoff for guest room registration to receive the rate is October 5, 2019**

**Attention CFMs! Conference has been pre-approved for CECs by ASFPM (Thursday conference 6 CECs, Friday conference 3 CECs) Workshop and field trip CECs – see descriptions for pre-approved CECs**

# Arizona Floodplain Management Association Fall 2019 Conference

**Wednesday November 6th**

## Wednesday, November 6th Training Classes – Schedule of Events (See Descriptions of Classes for more information)

Room	Castle Dome Room	Colorado River Room	Anza Room	Yuma Room	Arizona Room	
8:00 AM		Post-Burn Hydrology			Office Hours with FEMA & ADWR: Mapping (By advance appointment only, see page 5 for additional information)	
8:30 AM						
9:00 AM	Big Impact Through Low Impact Development in Mohave County: A NEW Guide!					
9:30 AM						
10:00 AM						
10:30 AM						
11:00 AM						
11:30 AM						
Noon	Lunch – Provided by AFMA (Southern Pacific/Gila)					
12:30 PM						
1:00 PM		Post-Burn Hydrology	CFM Exam (Must pre-register with ASFPM)	AZ CRS Users Group Meeting	Office Hours with FEMA & ADWR: Mapping (By advance appointment only, see page 5 for additional information)	
1:30 PM						
2:00 PM	NEPA and Endangered Species Act Compliance					
2:30 PM						
3:00 PM						
3:30 PM						
4:00 PM						
4:30 PM						
5:00 PM						
5:30 PM	Evening Reception and Registration on the Patio (Appetizers and cash bar, dinner on your own)					
6:00 PM						
6:30 PM						
7:00 PM						
1:00 to 4:00 PM, CFM Exam (Located in the Anza Room)						



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## Description of Classes – Wednesday, November 6<sup>th</sup>

### **Big Impact Through Low Impact Development in Mohave County: A NEW Guide! (9:00 am - 11:00 am, 2 CECs)**

**Kieran Sikdar, CFM, ENV SP, Holistic Engineering and Land Management, and Katherine Fish, CFM, Mohave County Flood Control District**

Low Impact Development (LID) has been gaining momentum throughout Arizona. Mohave County has developed a new guide for LID, building off previous guides that have been developed to adapt LID to the Arid Southwest. The new guide, titled *Mohave County Low Impact Development Guide for Decentralized Flood Protection and Water Security*, incorporates lessons learned and best practices based on observations from over 20 years of project successes and failures. An overview of the guide will be presented highlighting the important concepts that are necessary to advance LID programs, projects, and policies. Topics include why is LID important, what are the costs and benefits, what are critical elements of standard details and design, what the heck is LID maintenance, what's a water budget, and strategies for funding LID programs and projects.

**Instructors:** **Kieran Sikdar** has over 15 years of experience working on stormwater management and natural resource challenges using decentralized green infrastructure and regenerative solutions. He enjoys dreaming up and building creative new projects and facilitating community conversations while working at the intersection of engineering design, community planning, policy development, and quality of life for all beings.

**Kat Fish** is the Floodplain Programs Manager for Mohave County Flood Control District. Kat leads her amazing team through floodplain management, customer service, and public outreach projects. She has been a member of AFMA since 2012 and is the current Chair. Prior to Flood Control, she worked in the Improvement District and Water Systems Division. She is a CFM and has earned a B.S. in Geosciences and a B.S. in Business/Administration. She enjoys kayaking, reading, and spending time with family and friends.

### **NEPA and Endangered Species Act Compliance (2:00 pm - 4:00 pm, 2 CECs)**

**Jean Marie Rieck, M.S., QAWB, CEI, JE Fuller Hydrology & Geomorphology, Inc.**

This course will provide broad overviews of the compliance processes for both the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA). After a brief introduction and history of each law, triggers and requirements will be explained for various types of agency or private party projects including but not limited to Conditional Letters of Map Revision and individual and nationwide Clean Water Act (CWA) permits. The presenter will outline the basic implementation processes of both laws, as well as strategies to help avoid time delays or complications. Finally, the presentation will end with several examples of projects where NEPA and or ESA compliance was executed successfully.

**Instructor:** **Jean Marie Rieck** is a NEPA specialist, biologist, environmental planner, and Certified Environmental Inspector (CEI) with more than eight years of experience in natural resources management and regulatory compliance. She has managed or participated in projects in Arizona, California, Nevada, New Mexico, Wyoming, Utah, and Hawaii. She enjoys working closely with clients (both private and public entities) and agency representatives to navigate the processes of NEPA, Council of Environmental Quality (CEQ), CWA, ESA, and other applicable laws and regulations. Ms. Rieck holds permits to conduct protocol-level biological surveys for federally listed threatened and endangered species, including Mexican spotted owl, yellow-billed cuckoo, southwestern willow flycatcher, and Chiricahua leopard frog.





# Arizona Floodplain Management Association Fall 2019 Conference

## Post Burn Hydrology (8:00 am - 5:00 pm, 7 CECs)

**Linda Potter, P.E., CFM, Atkins North America, Inc.**

This one-day course will introduce you to immediate and short-term hydrologic impacts of fire on infiltration, runoff, sedimentation, and erosion. The course will also provide introduction to planning considerations and funding for recovery and mitigation. Planners, engineers, and emergency planners employed by local, state, and federal government agencies as well as private consultants who seek to increase risk awareness and planning skills, and those who work in watersheds prone to wildfires should attend this class.

### **Course Topics:**

- Immediate and short-term impacts of fire on hydrologic processes
- Overview of methods and models evaluating burn severity
- Evaluating burn severity
- Hydrologic modeling technical session
- Model uncertainties, calibration, and validation
- Hydraulic modeling of post-burn events
- Simulation methods and software
- Sediment and debris
- Planning, funding, and mitigation measures

**Instructor: Linda Potter** is a Project Director for Atkins North America, Inc. with extensive experience in post-burn watershed assessments. Her post-burn work includes the Southern California 2007 Firestorm, the Yarnell Hill Fire in Arizona, the Goodwin fire in Arizona, and the recent Thomas Fire in Santa Barbara and Ventura Counties. Linda specializes in arid region hydrology and hydraulics and has completed over 3,000 miles of floodplain delineations in the past 10 years. She has 25 years of civil engineering experience including work as a contract floodplain administrator and engineer for a rural county in Arizona. She has served on the Board of the Arizona Floodplain Management Association since 2007.



Colorado River

(Photo courtesy of Jack Moody)



## Arizona Floodplain Management Association Fall 2019 Conference

### Wednesday, November 6<sup>th</sup> Events

**CFM Exam** (1:00 pm to 4:00 pm, must pre-register with ASFPM) Anza Room

The ASFPM Certified Floodplain Manager (CFM) exam will be proctored. To take the exam, you must pre-register through ASFPM; see <http://www.floods.org/pdf/certapp.pdf> for more information.

**Office Hours with FEMA and ADWR: Mapping** (8:00 am to 5:00 pm, advance appointment only) Arizona Room  
Schedule a time to meet with Michael Bishop from FEMA Region IX and Mike Shelton from ADWR to discuss Risk MAP, current or future engineering studies, levees, or other mapping issues in your community. Contact Mike Shelton at ADWR to schedule an appointment. [meshelton@azwater.gov](mailto:meshelton@azwater.gov) or 602-771-8428.

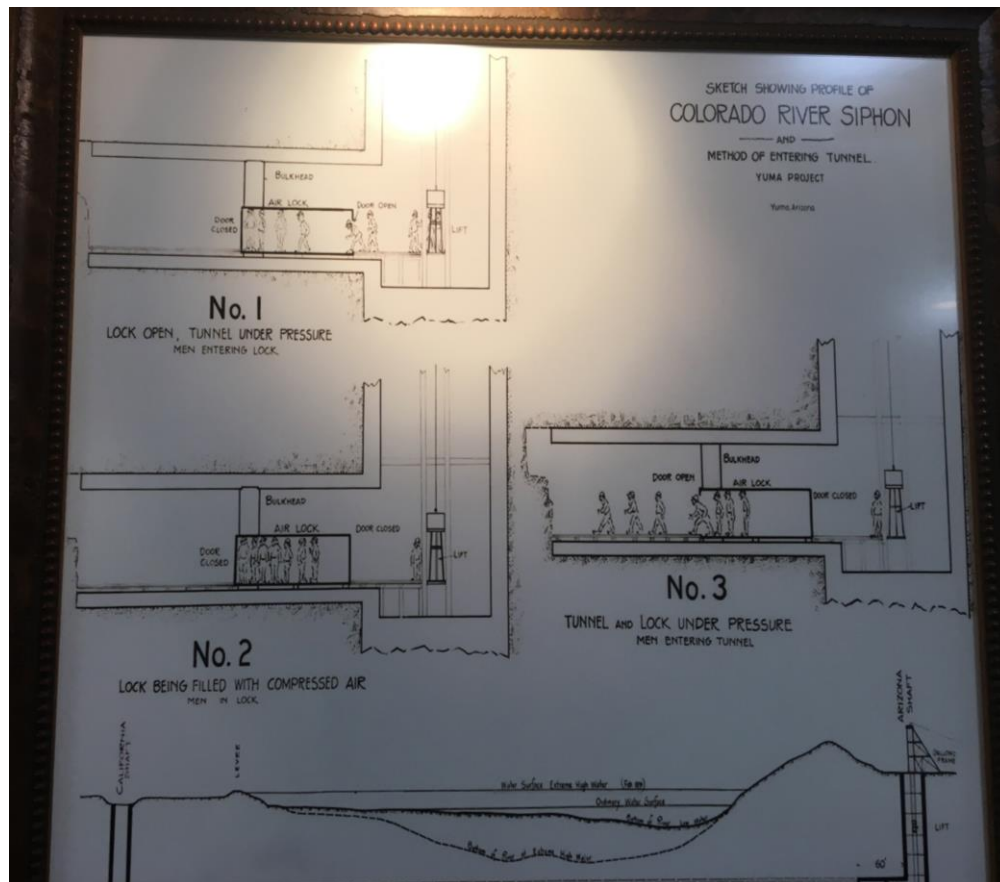
**AZ CRS Users Group Meeting** (1:00 pm to 2:30 pm) Yuma Room

This is the fall meeting for the AZ CRS Users Group. This group meets twice per year to exchange information, and discuss opportunities for communities that participate in the FEMA Community Rating System program. Please contact Ray Dovalina (email: [ray.dovalina@phoenix.gov](mailto:ray.dovalina@phoenix.gov) Ph. 602-534-5720) or Elise Moore (email: [elise.moore@phoenix.gov](mailto:elise.moore@phoenix.gov) Ph. 602-262-4026) to RSVP if you are planning to attend. For those who are not able to attend in person, we will have a call-in number for attendees to use.

**Evening Reception and Registration** (5:30 pm to 7:30 pm) On the Patio

Come register for the conference and join your fellow floodplain managers for an evening reception. Appetizers will be served and a cash bar will be available.

**Wednesday Dinner – On your own**



Colorado River Siphon Drawings  
(Photo courtesy of Jack Moody)



# Arizona Floodplain Management Association

## Fall 2019 Conference

Thursday, November 7<sup>th</sup>

Plenary Session (Southern Pacific/Gila)	7:00 to 8:00	Breakfast in the Southern Pacific/Gila	
	8:00 to 8:05	Call to Order and Announcements	
	8:05 to 8:15	Local Welcome by Douglas J. Nicholls, P.E., RLS, Mayor of Yuma	
	8:15 to 9:45	The Colorado River Flood of 1983 Frank Barrios, P.E.	
	9:45 to 10:15	The Colorado River Drought Contingency Plan Daniel Bunk, Deputy Chief of the Boulder Canyon Operations, U.S. Bureau of Reclamation	
	10:15 to 10:45	Break	
	10:45 to 11:45	Museum Fire Response and Risk Assessment Joe Loverich, P.E., CFM, JE Fuller Hydrology & Geomorphology, Inc.; Ann Youberg, R.G., PhD, Arizona Geological Survey; Ed Schenk, City of Flagstaff; John Carr, P.E., CFM, Coconino County	
	11:45 to Noon	Business Meeting	
Noon to 1:30 Lunch - Provided by AFMA in the Southern Pacific/Gila			
Afternoon Concurrent Sessions	1:30 to 2:00	Technical Track Colorado Room	Is that Certifiable? A Forensic Assessment for the Rawhide Floodplain Scott Ogden, P.E., CFM, JE Fuller Hydrology & Geomorphology, Inc.
	2:00 to 2:30		Sending Remote Camera Images via ALERT2 Peter Acton, P.E., JE Fuller Hydrology & Geomorphology, Inc.
	2:30 to 3:00		Webber Creek Watershed Preservation Project Andrew Daus, WEST Consultants, Inc.
	3:00 to 3:30		Break
	3:30 to 4:00		I-8/Araby Road Drainage and Roadway Design Challenges Raj Shah, P.E.; Alex Gonzalez, P.E.; Frank Henderson III, P.E.; Ritoch Powell & Associates
	4:00 to 4:30		Coffee Pot Drainage Basin Improvements Project – Rock Solid! David Peck, CFM, EIT, City of Sedona; Rob Lyons, P.E., CFM, JE Fuller Hydrology & Geomorphology, Inc.
	4:30 to 5:00		The FLO-2D Web Access Tool Elizabeth Rockwell, EIT, Hussein Hussein, P.E., CFM, Flood Control District of Maricopa County
	1:30 to 2:30	Programs and Policies Track Castle Dome Room	Maintenance is Sexy: A Look at Running a Drainage Facility Maintenance Program Ted Roper; Randall Gremlich, P.E., CFM, Mohave County Flood Control District
	2:30 to 3:00		New FEMA BRIC Grant Program Lucrecia Hernandez, Arizona Department of Emergency and Military Affairs
	3:00 to 3:30		Break
	3:30 to 4:00		Drainage Reports: What’s the Purpose and Common Mistakes to Avoid Chris Wanamaker, P.E., CFM, CPM, Pinal County Flood Control District
	4:00 to 4:30		A Systematic Approach to Improving Highly Erosive Washes in Lake Havasu City Josh Papworth, P.E., CFM, Dibble Engineering; Dustin Salisbury, CCM, City of Lake Havasu
	4:30 to 5:00		Coconino County Drainage Manual Updates Ryan Sauer, P.E., CFM, MSE, Entellus, Inc.
	Dinner 6:00 to 9:00		Dinner and Activities in the Southern Pacific/Gila Reception beginning at 6:00, no host bar, Dinner at 7:00

**\*Please note that FEMA speakers as well as others are subject to change based on emergency deployments.**





Friday, November 8<sup>th</sup>

Southern Pacific/Gila

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7:00 to 8:00	Board of Directors Meeting in the Anza Room
7:00 to 8:30	<i>Breakfast Buffet in the Southern Pacific/Gila</i>
8:30 to 9:00	<b>Flood Hydroclimatology "Revisited": Reflections on 35+ Years of Investigating Flooding in Arizona</b> Katie Hirschboeck, PhD, University of Arizona Emeritus Faculty
9:00 to 9:30	<b>Flood Risks Due to Emerging Weather Patterns of Hadley Cell Migration and Tropical Storm Remnants</b> William O'Brien, P.E., CFM; Sara Harders, MSc. U of A; NextGen Engineering, Inc. Tucson
9:30 to 10:00	<b>Smucker Park Detention Basin - With a name like that, it has to be good</b> Kevin Roberts, P.E., Dibble Engineering
10:00 to 10:30	<i>Break</i>
10:30 to 11:00	<b>A History of Flooding in Yuma – from the Colorado and Gila Rivers to Thunderstorms and Hurricanes</b> Jim Davey, P.E., RLS, James Davey and Associates, Inc.
11:00 to 11:30	<b>Update from FEMA Region IX</b> Alison Kearns, FEMA
11:30 to 12:00	<b>The Yuma Desalting Plant</b> Michael Norris, Deputy Area Manager, U.S. Bureau of Reclamations
12:30 to 2:30	<b>Yuma Desalting Plant Field Trip</b> Michael Norris, Deputy Area Manager, U.S. Bureau of Reclamations

### The Yuma Desalting Plant Field Trip (1.5 CECs)

The Yuma Desalting Plant was constructed under authority of the Colorado River Basin Salinity Control Act of 1974 to treat saline agricultural return flows from the Wellton-Mohawk Irrigation and Drainage District. The treated water is intended for inclusion in water deliveries to Mexico thereby preserving the like amount of water in Lake Mead. Construction of the plant was completed in 1992. A state-of-the-art advanced water treatment research center is also located at the Yuma Area Office. The Water Quality Improvement Center (WQIC) is one of six National Centers for Water Treatment Technologies and the only center focused on inland brackish water, both surface and groundwater. Research is conducted by Reclamation and in partnership with academia, state and local governments, and the private sector. The Yuma Area Office also includes an analytical lab which is licensed by the State of Arizona. The lab analyzes water samples for the Colorado River, well fields, and the WQIC.

In recent years, however, steady increases in water demand on the lower Colorado River coupled with the effects of a prolonged drought over the entire Colorado River Basin have prompted continued interest in plant operation.



(Photos from the BOR website)

