

Attention CFMs: The conference is pre-approved for CECs by ASFPM  
(Thursday conference 6 CECs, Friday conference 3.5 CECs)  
Class and field trip CECs – see descriptions for the pre-approved CECs)

# SPRING 2024 CONFERENCE

## **CHANDLER, ARIZONA**

Crowne Plaza

Phoenix-Chandler Golf Resort

1 N San Marcos Place

Chandler, Arizona 85225

**MAY 1 - 3**

Wednesday - Friday

8:00 AM - 5:00 PM

Conference Fee: \$375\*

\*Additional dinner guest \$50

### **Hotel Room Reservations**

[Hotel Reservation Link](#)

Links close 4/2/2024



# CONFERENCE OVERVIEW

## WEDNESDAY

2D FLOODING					
	Chandler Theatre	San Tan Room	La Ventana Room	Executive Boardroom	
8:00 AM	<b>2D Flooding Hazards: Science and Preparedness</b>	<b>Comprehensive Overview of Green-Ampt Infiltration</b>	<b>Floodplain 101</b>	<b>FEMA Office Hours</b>	
10:00 AM Break					
10:30 AM		<b>Overview &amp; Introduction to QGIS</b>	<b>CFM Exam</b>		
12:00 PM Lunch San Marcos Ballroom					
1:00 PM					
3:00 PM Break					
3:30 PM					
5:00 PM	Dinner on your own				

## THURSDAY

	San Marcos Golf Course	
6:00 AM	<b>AFMA Scholarship 5K Run/Walk</b>	
7:30 AM	San Marcos Ballroom Breakfast	
8:30 AM	<b>Plenary Session</b>	
9:45 AM Break		
10:15 AM		
12:00 PM	Lunch	
1:30 PM	San Marcos Ballroom A <b>Session A</b>	La Ventana Room <b>Session B</b>
3:00 PM Break		
3:30 PM		
5:00 PM	Happy Hour & Silent Auction - Pergola Patio	
6:00 PM	<b>AFMA Dinner - San Marcos Ballroom</b>	

## FRIDAY

	San Marcos Ballroom
7:00 AM	Breakfast
8:00 AM	<b>Plenary Session</b>
10:00 AM Break	
10:30 AM	
12:00 PM	To-Go Lunch Boxes
1:00 PM	<b>Field Trip - Offsite</b>



# WEDNESDAY, MAY 1

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## **FEMA OFFICE HOURS | FEMA REGION 9, ADWR**

8:00 AM - 5:00 PM | Executive Boardroom

Schedule a time to meet with FEMA Region IX and Mike Shelton from ADWR to discuss Risk MAP, current or future engineering studies, levees, or other issues in your community. Contact Mike Shelton at ADWR to schedule an appointment. [meshelton@azwater.gov](mailto:meshelton@azwater.gov) or 602-771-8428.

## **2D FLOODING HAZARDS: SCIENCE AND PREPAREDNESS AWR-362 | UNIVERSITY OF HAWAII'S NATIONAL DISASTER PREPAREDNESS CENTER**

8:00 AM - 5:00 PM | Chandler Theatre | 7 CECs | Limit 40

Enhance your understanding of flood science, risk assessment, and preparedness strategies. This comprehensive session covers meteorological and other flood causes, forecasting, risk assessment, and mitigation practices. Gain insights into interpreting FEMA flood risk maps, National Weather Service forecasts, and bolster your readiness for sudden and long-fuse flooding events.

## **A COMPREHENSIVE OVERVIEW TO THE GREEN-AMPT INFILTRATION METHOD | PETER ACTON, PE, NATE VAUGHAN, PE, JE FULLER HYDROLOGY & GEOMORPHOLOGY**

8:00 AM - 12:00 PM | San Tan Room | 3.5 CECs | Limit 70

Have you ever had questions about infiltration methods, but been too afraid to ask? This presentation provides an introduction to the fundamentals of Green and Ampt infiltration, examples of regulatory implementation in several jurisdictions, how it's used in several popular modeling platforms, and applications of use in the western US.

The Green and Ampt infiltration methodology has historically been applied based upon soil texture class (sand, loam, silty loam, etc.) from reference tables. Broader use of the Green and Ampt infiltration methodology has been hindered by a lack of readily available, localized reference datasets as well as popularized usage of alternatives such as the NRCS Curve Number methodology. Modern methodologies and datasets have allowed for development of improved texture class relationships and project-specific, spatially variable parameter assignment.

Implementation methods and guidelines for applying the methodology are provided to assist technical professionals and regulatory agencies in implementing the methodology to facilitate flood hazard identification and mitigation. Both statewide and local implementations are reviewed.

With improvements in technology and increasing sophistication of lumped parameter and two-dimensional modeling platforms, the physically-based Green and Ampt methodology can be incorporated more easily over a broader geographical range than has been previously available. While the Green and Ampt infiltration methodology is incorporated into multiple popular hydrologic and hydraulic modeling packages, not all implementations of Green and Ampt infiltration are the same. Examples of implementation of the values, methodologies, and models discussed are included.





# WEDNESDAY, MAY 1

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## **FLOODPLAIN 101 | ADWR, AFMA P&P COMMITTEE**

8:00 AM - 12:00 PM | La Ventana Room | 3.5 CECs | Limit 50

Learn all of the requirements of administering FEMA floodplains, the basics of reading and interpreting published floodplain information, and community compliance for participating in the National Flood Insurance Program (NFIP). The specific requirements for local floodplain administrators will be covered, including permitting, violations, record keeping, and substantial damage and improvement.

## **OVERVIEW & INTRODUCTION TO QGIS | CORBIN BENDEL, EIT, HARI RAGHAVAN, PE, CFM, PHD, WILSON & COMPANY, INC**

1:00 PM - 4:00 PM | San Tan Room | 3.5 CECs | Limit 70

The 4-hour class will provide an introduction to QGIS aimed at users who are either new to QGIS or have a basic familiarity with GIS and ESRI ArcMap. Participants will become familiar with navigating the program, setting up a new project, viewing and modifying spatial data, working with attributes, geoprocessing algorithms, and more. Participants should bring their laptops with QGIS installed prior to attending the class. Installation instructions will be provided to all attendees one week prior to the class.

## **CFM EXAM**

1:00 PM - 4:00 PM | La Ventana Room

It's back! The CFM exam has gone digital, and AFMA is offering our first digital CFM event at the Conference. This is new to AFMA so it will be a little different from past CFM exams. In general, the exam will be the same except instead of being written it will be on a laptop. Here is what you need to know:

- You must sign up for the exam with ASFPM (not AFMA) at least 3 weeks prior to the conference, no exceptions (not our rules, theirs). <https://www.floods.org/certification-program-cfm/getting-certified/>
- ASFPM will provide you with a link to install the exam software on your laptop. You must do this BEFORE the conference.
- Your user profile must have ADMIN rights to this laptop. If you don't have ADMIN rights while taking the exam it won't work. Your IT cannot download the software for you on their profile, your user profile must have ADMIN rights.
- Bring this laptop with you to the exam.

If you have any questions about the logistics please reach out to Ryan Sauer ([rsauer@entellus.com](mailto:rsauer@entellus.com)), and good luck!

## **DINNER | ON YOUR OWN**

5:00 PM | Downtown Chandler

Happy hour and dinner on Wednesday are on your own, but there are plenty of options nearby. We recommend you gather with a group and take a short walk south to the many bars and restaurants available in Downtown Chandler. Here are some options to get you started:



# SCHOLARSHIP 5K RUN/WALK

## THURSDAY MORNING - AFMA SCHOLARSHIP 5K RUN/WALK

\$20 Registration Fee

AFMA Membership

Join us for a thrilling 5K race on the picturesque San Marcos Golf Course, where every stride helps pave the way for education! Lace up your running shoes and rally with us on Thursday morning at 6:00 am as we hit the scenic pathways for a cause. This invigorating event isn't just about the finish line; it's about supporting the AFMA scholarship fund and empowering future leaders in our community. Sign up now and be part of a race that makes a lasting impact!

Whether you're a seasoned runner or prefer a brisk walk, all are welcome to join in.

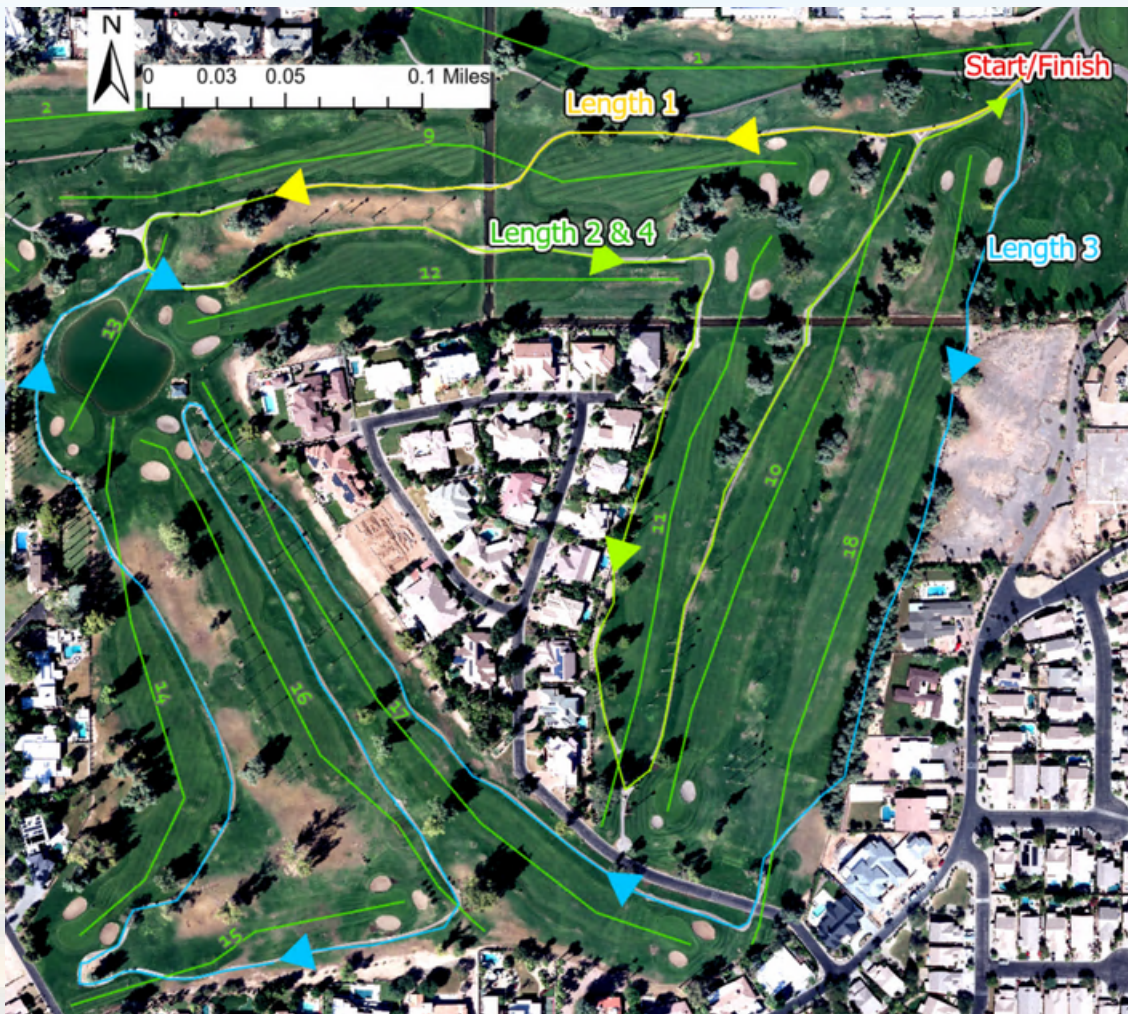
### Schedule:

5:30 AM - Meet at the San Marcos Golf Course

5:55 AM - Assemble at Start Line; Runners towards the front, walkers towards the back

6:00 AM - Race Begins

7:30 AM - Race Festivities Conclude







# THURSDAY, MAY 2

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## **6:00 AM | AFMA SCHOLARSHIP 5K RUN/WALK**

San Marcos Golf Course

## **7:30 AM | BREAKFAST BUFFET**

San Marcos Ballroom

## **8:30 AM | CALL TO ORDER**

Katherine Fish, AFMA Chair

## **8:35 AM | LOCAL WELCOME**

Kevin Hartke, Mayor at City of Chandler

## **8:45 AM | THE FUTURE OF FLOOD RISK DATA**

Michael Bishop, FEMA Region IX

Sarada Kalikivaya, PE, PMP, CFM, AtkinsRealis

## **9:45 AM - MORNING BREAK (20 MINUTES)**

## **10:05 AM - UNLOCK YOUR GREATNESS**

Ari Gunzburg

Ari Gunzburg is an award-winning speaker, writer and high performance coach who talks about themes of growth through adversity, positive mindset, and persistence. He will energize your audience and give them the tools to unlock their own everyday greatness. This is achievable using The 5 Keys To Greatness, which is the easy-to-remember framework Ari developed and wrote about in his award-winning motivational book, 'The Little Book Of Greatness.'

## **11:15 AM | DETROIT BASIN / GAZELLE MEADOWS PARK STORM DRAIN SYSTEM & ASSOCIATED IMPROVEMENTS**

Vivianna Barrientes, MS, CFM, City of Chandler

Ryan Sauer, PE, CFM, Entellus, Inc

Dan Broderick, Achen-Gardner Construction

## **11:45 AM | AFMA BUSINESS MEETING**

AFMA Board

## **12:00 PM | LUNCH**

San Marcos Ballroom

## **1:30 PM | CONCURRENT SESSIONS**

San Marcos Ballroom A & La Ventana

## **5:00 PM | HAPPY HOUR & SILENT AUCTION**

Pergola Patio

## **6:00 PM | AFMA CONFERENCE DINNER & TABLE TRIVIA**

San Marcos Ballroom



# THURSDAY, MAY 2

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## CONCURRENT SESSION A | SAN MARCOS BALLROOM A

### 1:30 PM | THE WORLD'S FIRST 2-D MODEL

Brian Wahlin, PE, PhD, WEST Consultants, Inc  
Amoryn Smith, WEST Consultants, Inc

### 2:00 PM | WATERSHED MODELING AND FLOOD RISK ASSESSMENT FOR EDWARDS AFB

Peng Zhang, PE, CFM, Wilson & Company  
Brian Schalk, PE, CFM, Wilson & Company

### 2:30 PM | POST-WILDFIRE MODELING: A COMPARISON OF METHODS AND REAL-WORLD APPLICABILITY, A FLAGSTAFF CASE-STUDY

Karlie Kessel, EIT, JE Fuller Hydrology & Geomorphology  
Edward Schenk, CFM, RG, City of Flagstaff

### 3:00 PM - AFTERNOON BREAK

### 3:30 PM | ARIZONA'S FIRST PRECAST BOX CULVERT STANDARD DETAIL & SPECIFICATION

Adrianna Lash, Rinker Materials, a Quikrete Company

### 4:00 PM | MCDOT EAGLE EYE ROAD, TIGER WASH AND TORTOISES

Lydia Warnick, PE, Maricopa County Department of Transportation  
Andrew Chill, PE, CFM, Kimley-Horn

### 4:30 PM | DRAINAGE DESIGN MANAGEMENT SYSTEM FOR WINDOWS (DDMSW) VERSION 6.8.0 NEW FEATURES AND CAPABILITIES

Michael Potucek, Flood Control District of Maricopa County  
Pramita Tamrakar, PE, Flood Control District of Maricopa County  
Bing Zhao, PE, PhD, Flood Control District of Maricopa County



# THURSDAY, MAY 2

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## CONCURRENT SESSION B | LA VENTANA

### **1:30 PM | OVERVIEW OF THE DAM SAFETY PROGRAM AT THE ARIZONA DEPARTMENT OF WATER RESOURCES**

Waleed Aboshanp, PE, PhD, Arizona Department of Water Resources

### **2:00 PM | AMARILLO VALLEY BASIN DAMS: A DECADE OF DISCOVERY AND MITIGATION**

Christopher Wanamaker, PE, CFM, CPM, Pinal County

Linda Potter, PE, CFM, AtkinsRealis

### **2:30 PM | FIBER-REINFORCED CONCRETE TOE-DOWN WALLS FOR EROSION PROTECTION IN NOGALES WASH, NOGALES, ARIZONA**

William O'Brien, PE, CFM, QSD, EPS Group, Tucson

### **3:00 PM - AFTERNOON BREAK**

### **3:30 PM | EVALUATION OF PROCEDURES FOR CALCULATING DEPTH OF SCOUR**

Dennis L. Richards, PE, BC.WRE, Olsson

### **4:30 PM | SCOUR & BANK PROTECTION FOR SEWER WASH CROSSINGS: CASE STUDY FOR DRAINAGEWAY 7 IN GREEN VALLEY, AZ**

Thiru Bose, MS, PE, CFM, Michael Baker International

Ron Coupland, PE, CFM, Michael Baker International

Adrian Navarro, CFM, RLS, Michael Baker International





# FRIDAY, MAY 3

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## **7:00 AM | BREAKFAST BUFFET**

San Marcos Ballroom

## **8:00 AM | TWO-DIMENSIONAL H&H MODELING USING FREELY AVAILABLE DATA AND SENSITIVITY TO KEY INPUTS**

Hari Raghavan, PE, CFM, PhD, *Wilson & Company*

Peng Zhang, PE, CFM, *Wilson & Company*

## **8:30 AM | QUANTIFY POST WILDFIRE SURFACE RUNOFF USING THE CURVE NUMBER IN ARID WATERSHEDS**

Jennifer Duan, PE, PhD, *University of Arizona*

Ali Arjmandi, MS, *University of Arizona*

## **9:00 AM | CHECKING IN WITH WATER YEAR 2024**

Erinanne Saffell, PhD, *Arizona State University*

## **10:00 AM - MORNING BREAK**

## **10:30 AM | WATSON LAKE HYDROLOGIC ELEMENTS**

Brian Ruiz, PE, CFM, *City of Prescott Public Works*

Nate Vaughn, PE, *JE Fuller Hydrology & Geomorphology*

## **11:00 AM | PASEO VISTA RECREATIONAL AREA AND LANDFILL**

Cindy DePonti, PE, CFM, *Horrocks*

Gina Ishhida-Raybourn, PE, *City of Chandler*

Michael LoTempio, PE, *Bowman*

## **11:30 AM | GILBERT REGIONAL PARK AT HIGLEY/OCOTILLO**

Tom Condit, PE, CFM, *Town of Gilbert*

## **12:00 PM - BOXED LUNCH**

## **12:30 PM | FIELD TRIP | PASEO VISTA RECREATIONAL AREA AND LANDFILL & GILBERT REGIONAL PARK AT HIGLEY/OCOTILLO**

2 CECS | See the Map tab on the Conference website for directions