

Tackling the Impossible



Call for Registration



2018 Annual Conference
September 25-28, 2018
The Westin Snowmass Resort
Snowmass Village, CO

ABOUT THE 2018 CONFERENCE

The conference will be held at The Westin Snowmass Resort, September 25-28, 2018.

THE WESTIN SNOWMASS RESORT
100 ELBERT LN, SNOWMASS VILLAGE, CO 81615
970.923.9200 OR 866.716.8108
www.westinsnowmass.com

This year, the conference location is Snowmass, Colorado. A beautiful mountain town, Snowmass just celebrated its 50th year as a winter resort! Back in the early years, lift tickets were \$6.50 and rooms in the lodges were \$20! Currently under construction, Snowmass Base Village is the largest ski resort development underway in North America. Attractions range from skiing, hiking, biking, and a terrain park and will soon include an alpine coaster, a canopy tour, and more.

KEYNOTE SPEAKER - TEJU RAVILOCHAN



Teju Ravilochan is co-founder of Uncharted (formerly Unreasonable Institute). Uncharted takes on specific social and environmental problems, builds armies of people best positioned to solve those problems, and equips those people with what they need — mentors, funders, and partners — to attack those problems from all sides. To date, Uncharted has powered 61 programs in 24 countries supporting 592 startups. The first 171 startups have collectively raised \$220 million and benefited 25 million people. Recent initiatives include the Future Cities Accelerator (funded by The Rockefeller Foundation), an effort to serve the needs of poor or vulnerable populations via 10 of the country's best startups and Uncharted Food Access (funded by the City and County of Denver), which united Denver's best startups tackling food deserts in the city. Teju left his position as CEO of Uncharted after working there for 9 years in December 2017 to explore new ways to create large scale systems change. He remains on the board.

Teju is also a Forbes 30 Under 30 Entrepreneur, an Inc. Magazine 30 Under 30 Entrepreneur, and a TEDx speaker. Teju graduated from the University of Colorado at Boulder in 2008 with a degree in international affairs. He lives in Denver, Colorado and enjoys puns, time with friends and family, reading, and being outdoors.

THURSDAY FEATURED SPEAKER - JOSH DUNCAN



Josh Duncan is with MountainChild. MountainChild exists for the purpose of raising awareness, resources, and financial aid for humanitarian work carried out amongst impoverished children and their villages throughout the Himalayas. Their origins began in 2000 when short-term exploratory teams traveled to the region to investigate reports of severe medical, social, educational, and environmental challenges facing these children. Their research revealed staggering death rates in which large numbers die before reaching their eighth birthday, and one out of every five children die before the age of one. MountainChild is urgently working to improve the lives of these children by bringing food, medical aid, education, clean water, and love to children who have little chance of survival amongst such hostile conditions. MountainChild takes careful steps to ensure that the cultural integrity and rich history of these precious children remain intact and that they are empowered through appropriate and sustainable development techniques.



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#CASFM2018

HOTEL ACCOMMODATIONS & DETAILS

The Westin Snowmass Resort

100 Elbert Ln, Snowmass Village, CO | 970-923-9200 or 866-716-8108 | www.westinsnowmass.com

RESERVATION METHOD & POLICIES

Attendees are responsible for arranging their accommodations. You may call directly to the Westin at (800) 525-9402 or to the Westin Central Reservation Office at (800) 937-8461.

You will need to mention the CASFM Conference to get the conference rate.

You may also make reservations at this website: <https://www.starwoodmeeting.com/Book/CASFM>

CUT OFF DATE

You should make your reservation no later than the room block cut-off date, September 4, 2018. After this date, unsold rooms will be released for general sale. Reservations will be accepted at the prevailing rates after the release date, subject to Hotel availability.

EARLY DEPARTURE

An early departure fee equal to one (1) night's lodging will apply if an attendee checks out prior to the confirmed checkout date.

DEPOSIT & CANCELLATION

A credit card is required to hold each guest's reservation. This credit card shall serve to confirm the reservation for the dates indicated and may be used as the Guest's method of payment. A one night deposit (including tax) is required 72 hours prior to arrival and the balance is paid at checkout. There is no cancellation penalty if cancellation is received by the Hotel at least 72 hours prior to arrival and a cancellation number is obtained. Cancellations made within 72 hours of arrival will be subject to a one night's room and tax cancellation charge.

SECURITY

Hotel does not provide security in the event and function space and all personal property left in the event or function space is at the sole risk of the owner. Attendees are responsible for safekeeping of personal property.

ROOM RATES

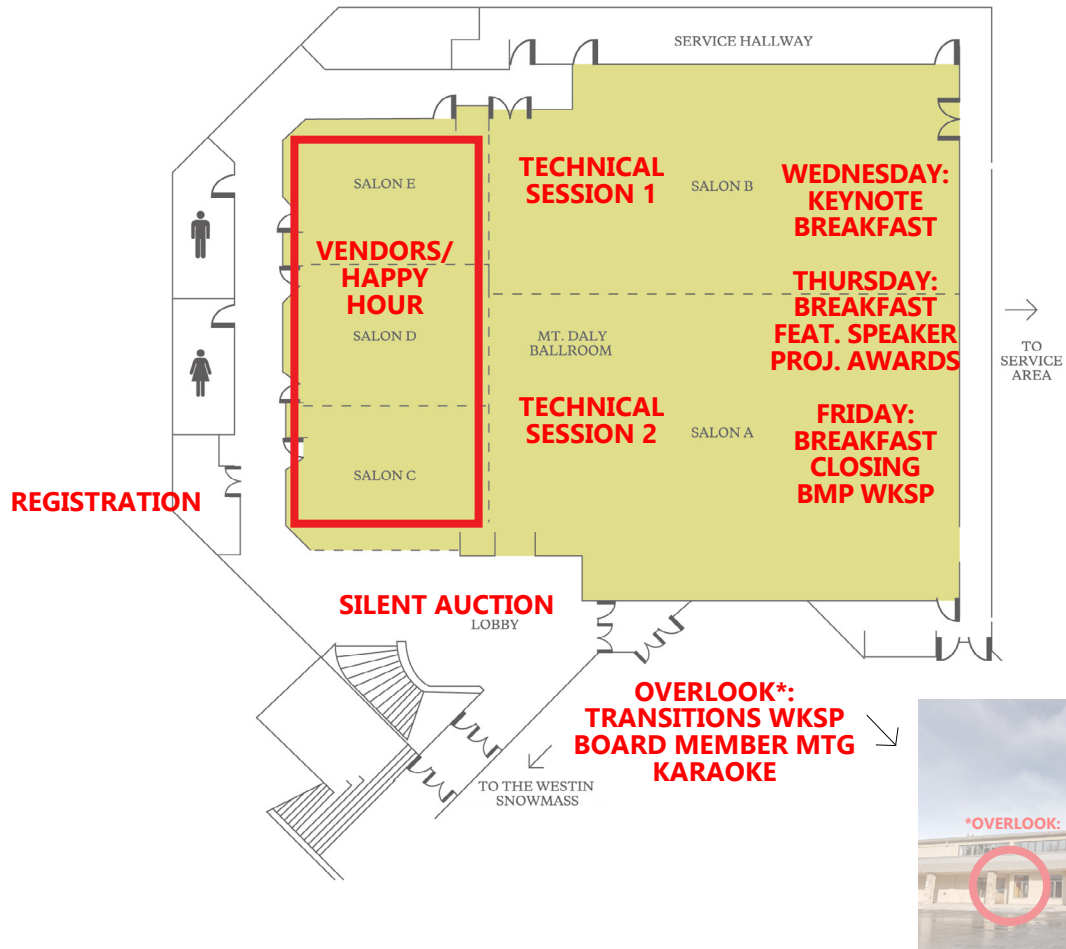
Room Type	Rate
Run of the House Rooms	\$129
One Bedroom Suites	\$209

* Rates are good for single or double occupancy and do not include applicable state and local taxes. Please note that the number of each type of room available at the conference rates is limited. Make your reservations early to ensure you are able to book the type of room you want.

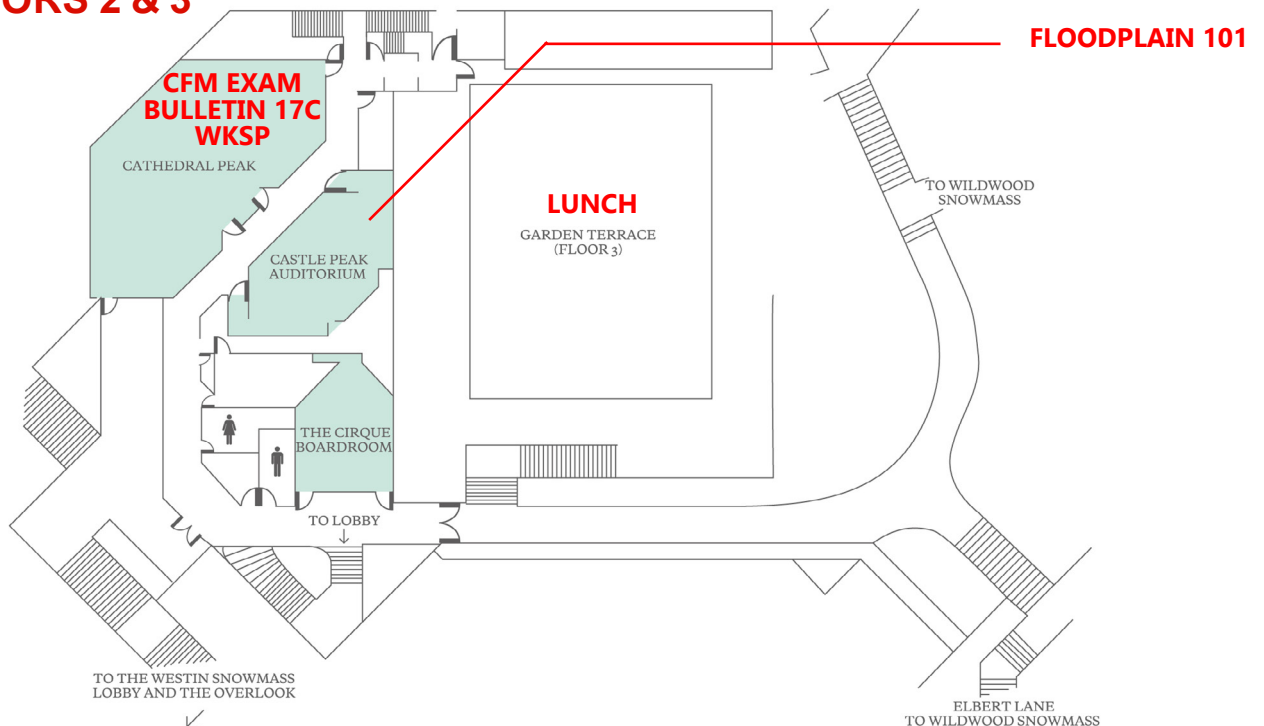


FACILITY MAPS

FLOOR 1



FLOORS 2 & 3





REGISTRATION INFORMATION

September 25-28, 2018 - Snowmass, CO

To register, please visit www.casfm.org and select the Annual Conference link. Or, you can use this direct link:

<https://casfm.swoogo.com/CASFM2018>

If you have any questions, contact our registration coordinator Alan Turner at (720) 286-0844.

BASIC CONFERENCE FEES

The basic registration fee includes all written materials, three continental breakfasts, two lunches, refreshment breaks, receptions, and the Thursday Banquet Dinner. Please note that all presenters are required to be registered and paid conference attendees.

- Early Discount (through August 24) | \$325
- Regular Rate (through September 14) | \$365
- Late or Onsite Registration (after September 14) | \$405

CANCELLATION INFORMATION

Canceled registrations will be refunded in full, minus a \$25 fee, through August 24, 2018. Registrations canceled between August 24, 2018 and September 14, 2018 will receive a 50% refund. Cancellations made after September 14, 2018 will not be refunded. Cancellations must be made by contacting Alan Turner at 720-286-0844. If you cancel your registration, remember to call the Westin to cancel your hotel accommodations.

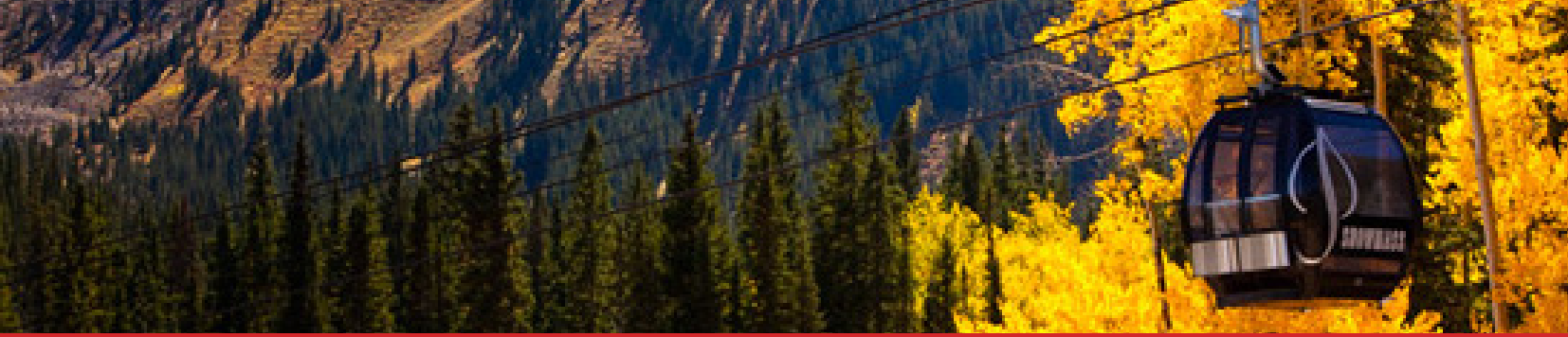
ADDITIONAL MEALS

The Conference Fee includes all meals listed above in the Basic Conference Fees Section. Meal tickets do not need to be purchased for the registered conference attendee. If desired, extra meal tickets may be purchased for the attendee's guest (spouse, children, etc.) by checking the appropriate boxes in this section of the online registration form.

- Wednesday Lunch | \$20
- Thursday Lunch | \$20
- Thursday Dinner | \$50

WORKSHOPS/FIELD TRIPS

- Floodplain 101 (Tuesday 8am - 5pm) | \$75
- Bulletin 17C Analyses on Regulated Streams (Tuesday 2pm - 5pm) | No Charge
- Transitions (Tuesday 2pm - 5pm) | No Charge
- Inspection and Maintenance of Post-Construction BMPs (Friday 9:30am-1pm) | No Charge
- Mountain Bike Tour (Friday 9am - 12pm) | No Charge
- John Denver Sanctuary Tour (Friday 9am - 12pm) | No Charge
- Guided Hike to Maroon Lake (Friday 9am - 12pm) | No Charge
- Golf Tournament (Friday 9:30am - 1pm) | \$55 per person or \$220 per team



TUESDAY WORKSHOPS

FLOODPLAIN 101 - TUESDAY 8AM - 5PM CASTLE PEAK AUDITORIUM

The Floodplain 101 workshop will cover subjects including overall floodplain management, floodplain maps and Flood Insurance Studies, key National Flood Insurance Program (NFIP) regulatory and non-regulatory standards, flood insurance, and flood hazard mitigation, among other topics. If you need a refresher, this is a course you don't want to miss.

BULLETIN 17C ANALYSES ON REGULATED STREAMS CASE STUDY: COLORADO AND ARKANSAS RIVER BASINS TUESDAY 2PM - 5PM CATHEDRAL PEAK

This workshop will present the challenges of applying Bulletin 17C procedures to the highly regulated Colorado and Arkansas River basins and provide insight to the techniques used, as well as lead the attendee through lessons learned and example Bulletin 17C analyses. Please come with your own laptop. Data will be provided via flash drive.

TRANSITIONS: FOSTERING COMMUNITY IN TIMES OF CHANGE TUESDAY 2PM - 5PM THE OVERLOOK

Just starting out or old timer? Large or small employer? Public or Private? No matter what the answer, we all strive for a successful career. This workshop will help foster a community of understanding, cooperation, sharing, and encouragement....even when transitions occur.

FRIDAY WORKSHOP

INSPECTION AND MAINTENANCE OF POST-CONSTRUCTION BMPS - FRIDAY 9AM - 12PM SALON A & B

All stormwater post-construction BMPs require regular maintenance to remain operating as designed. This workshop provides attendees with information regarding the activities and frequency of activities for performing post-construction BMP inspection and maintenance.



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FIELD TRIPS

John Denver Sanctuary

Led by April Long, City of Aspen

The John Denver Sanctuary is nestled in the heart of Aspen, next to the Rio Grande Park. The manmade wetlands and winding streams work as an innovative storm water filter system, cleaning water before it drains into the Roaring Fork River. The City of Aspen transformed this small ditch, which used to flow through an underground pipe, into an environmental masterpiece. They sculpted thousands of cubic yards of earth, found and placed hundreds of boulders, planted groves of native trees, shrubs, and wildflowers, and created wetlands, streams, and waterfalls into this unique landscape, which captures Aspen's beauty and serves to continuously clean the community's storm water runoff.

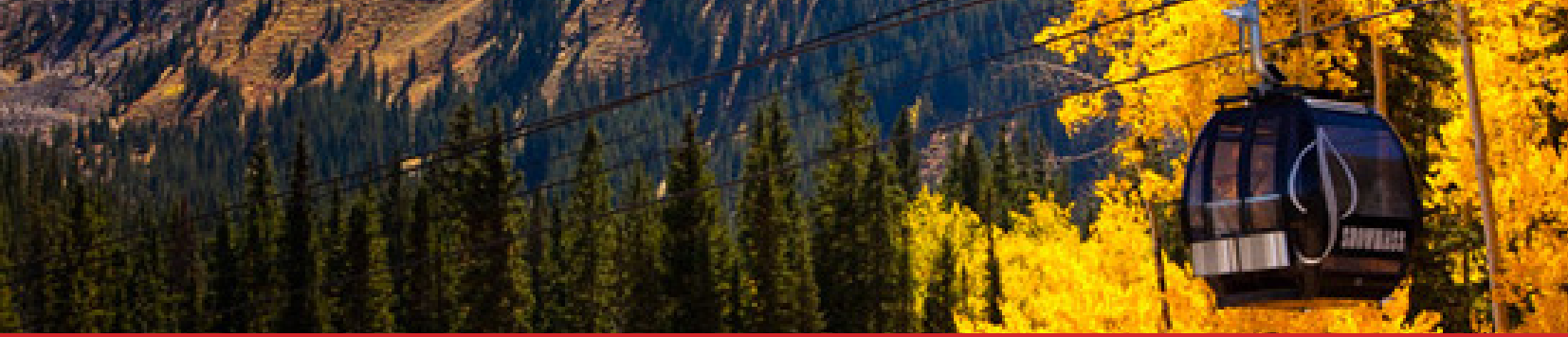


Guided Hike to Maroon Lake

Led by Aspen Center for Environmental Studies

Join us for a guided hike to Maroon Lake with the Aspen Center for Environmental Studies (ACES). This hike should be absolutely stunning in the fall! Participants will take the bus from Snowmass to Highlands and then start the hike from the trailhead at the East Maroon Portal. The roughly 3 mile hike at a moderate grade should take about 2.5-3 hours. The ACES naturalist will share information about geology, aspen trees, wildflowers, and wildlife. Participants will take a bus back to Snowmass from Maroon Lake.





GOLF TOURNAMENT

This year's golf tournament will be held at Gypsum Creek Golf Course. The golf course is a Pete Dye designed, 18-hole Championship course for players of all caliber. Spread out over a steep, sage-covered mesa, this challenging course beguiles golfers with splendid natural scenery and a bit of deception. The signature fifteenth hole is a daunting par-5 that exceeds 550 yards from the back tees and is almost never reached in two shots thanks to the prevailing winds. From there on, steep drop offs and tough angles are the status quo for this truly spectacular course.



- Who:** Any conference attendee who registers
- Where:** Gypsum Creek Golf Course, 530 Cotton Ranch Drive, Gypsum, CO 81637
- When:** Friday, September 28, 2018; 9:30 shotgun start
- Cost:** \$55 per player | \$220 per team
- Format:** 4-person scramble
- Lead By:** John Loranger, Wood PLC



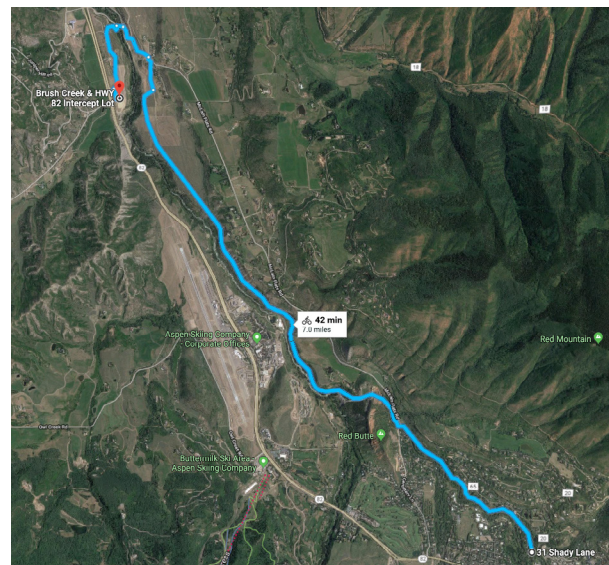
MOUNTAIN BIKE RIDE

Mountain Bike Tour - Rio Grande River Trail

Join us on a morning bike tour through Aspen to learn more about improvements on and near to the Roaring Fork River. We will start our tour at the Brush Creek and HWY 82 Intercept Lot and follow the Rio Grande River Trail into the Town of Aspen. Along the way, we will stop to look at key points of interest. Local project representatives will be on hand to describe the challenges and successes for each project.

This round trip ride will consist of a total of 14 miles with approximately 200ft of elevation gain. Bikers of all abilities are welcome to join. Please be sure to bring water, sun protection, and a small snack with you – we will be out from 9am to noon.

Bike rental information will be available shortly. Please email Richard.ommert@respec.com if you plan on renting a bike for the tour.



SILENT AUCTION

WE ARE NOW ACCEPTING DONATIONS FOR OUR SILENT AUCTION!

Proceeds from the Silent Auction fund our CASFM Scholarships, delineated below. Since we began our scholarship program in 2002, CASFM has awarded more than \$70,000 to students in Colorado. If you are interested in donating, please contact Jacob James:

Jacob James, P.E., CFM

Stormwater Manager - Town of Parker
303.805.3166
jjames@parkeronline.org

Ben Urbonas Scholarship:

This scholarship is awarded to a graduate level student studying in a field closely related to the goals of CASFM. The purpose of this scholarship is to promote interest among students and the engineering community in CASFM and to promote the goals of the organization.

Family Scholarship:

This scholarship is awarded to an accredited undergraduate student (Sophomore level or above) or a graduate student whose parent or legal guardian is a current member of CASFM. The purpose of this scholarship is to assist members of CASFM and their immediate offspring in paying for the cost of higher education and to further promote interest in the goals of the organization.

Undergraduate Scholarship:

This scholarship was originally funded by the Urban Watersheds Research Institute and is awarded to an undergraduate student in the field of Civil Engineering or a closely related field in Colorado. The purpose of this scholarship is to promote interest among students and the engineering community in CASFM and to promote the goals of the organization.

TUESDAY SEPT. 25, 2018

8:00AM TO 5:00PM

Floodplain 101

Location: **Castle Peak Auditorium**

2:00PM TO 5:00PM

Workshop: Bulletin 17C Analyses on Regulated Streams – A Case Study of the Colorado and Arkansas River Basins

Brad Bettag - Wood Environment and Infrastructure Solutions, Kevin Houck - Colorado Water Conservation Board

Location: **Cathedral Peak**

2:00PM TO 5:00PM

Workshop: Transitions - Fostering Community in Times of Change

Penn Gildersleeve - Retired, Jeremy Deischer - ICON Engineering, Stuart Gardner, Shea Thomas - Urban Drainage & Flood Control District (UDFCD)

Location: **The Overlook**

5:00PM TO 8:00 PM

Dinner on Your Own

8:00PM TO 9:00PM

Ice Breaker Social Hour

Sponsored By: Triton Environmental

Location: **Vendor Area**



WEDNESDAY SEPT. 26, 2018

7:00AM TO 10:00AM

Certified Floodplain Manager Exam

Location: **Cathedral Peak**

8:00AM TO 10:00AM

Registration and Breakfast, Committee Information Table, Sign-up for CFM Credits

Location: **Floor 1 Registration**

10:00AM TO 10:15AM

CASFM Chair Welcome Address

Deb Ohlinger - Olsson Associates

Location: **Salon A & B**

10:15AM TO 11:30AM

Keynote Address - Tackling the Impossible

Tejasvi (Teju) Revilochan - Uncharted

Location: **Salon A & B**

11:30AM TO 1:00PM

Lunch

Location: **Garden Terrace**

11:30AM TO 1:00PM

Board Member Meeting

Location: **The Overlook**

1:00PM TO 1:30PM

Break

1:30PM TO 3:00PM

Technical Sessions (see [Wednesday Technical Sessions](#) for details)

3:00PM TO 3:30PM

Break

3:30PM TO 5:00PM

Technical Sessions (see [Wednesday Technical Sessions](#) for details)

5:00PM TO 6:30PM

Happy Hour

Sponsored by: RESPEC

Location: **Vendor Area**

AFTER 6:30PM

Dinner on Your Own



WEDNESDAY TECHNICAL SESSIONS TECHNICAL MODELING

Location: **Cathedral Peak**

Moderator: TBD

REGULATING 2D MODELS & TOOLS FOR PLANNING 1:30PM

Isaac Allen - AECOM; Thuy Patton - Colorado Water Conservation Board

Regulatory guidance is focused on 1D models. As recent advancements have led to the more frequent use of 2D modeling, questions have arisen. This presentation will focus on products from 2D models and how 2D models will be regulated.

HOW TO BE LESS WRONG – ERRORS AND UNCERTAINTY IN HYDRAULIC MODELING 2:00PM

Andrew Park-Friend; Ryan Carroll; Daniel Aragon - Michael Baker International

Hydraulic modeling is prone to uncertainty. This presentation will highlight our research on the sources and magnitude of uncertainty in hydraulic models, and will discuss how to reduce and effectively communicate this uncertainty to stakeholders.

TOOLS TO STAY AHEAD OF THE STORM 2:30PM

Dana McGlone- Dewberry; Kevin Houck - Colorado Water Conservation Board; Kevin Stewart - UDFCD

Warm season, heavy rainfall events in Colorado put people and property at risk every year. Numerous scientific and computing advances over the recent years have paved the way for atmospheric models to produce more reliable quantitative precipitation forecasts (QPF). Come learn the basics of QPF forecasting and rainfall climatology in Colorado, as well as objective and subjective forecasts tools that can identify potential flood threats.

BENDWAY WEIRS AND 2D MODELING: AN INNOVATIVE STREAM DESIGN 3:30PM

Aaron Sutherlin, Drake Ludwig - Matrix Design Group, Inc.

To restore a laterally unstable reach along Fountain Creek, Matrix Design Group paired reference reach information with detailed two-dimensional hydraulic modeling to design bendway weir structures that improve bank stability and creek function, reduce sediment loading, and protect adjacent property.

QUANTIFYING CLIMATE CHANGE IMPACTS ON FLOOD HYDROLOGY USING GLOBAL CLIMATE MODELS TO ADJUST NOAA ATLAS 14 PRECIPITATION DEPTHS

4:00PM

Derek Rapp, Jim Wulliman - Muller Engineering Company; Brian Varrella - Colorado Department of Transportation

Climate change impacts on flood hydrology are rarely evaluated due to the disconnect between large-scale Global Climate Models and localized hydrology models. This presentation discusses tools that can evaluate impacts of climate change on NOAA Atlas 14 precipitation frequency estimates.

EVOLUTION OF THE 2-D BASE LEVEL ENGINEERING ACROSS FEMA REGION VIII AND A CASE STUDY FROM GARFIELD COUNTY, COLORADO

4:30PM

Eli K. Gruber, Garrett Sprouse - CDM Smith; Thuy Patton - Colorado Water Conservation Board

A look at the evolution of 2-D BLE modeling for projects throughout FEMA Region VIII, focusing on technical aspects of modeling and mapping. A case study from Garfield County, Colorado highlights innovative modeling techniques to overcome technical challenges.

WATERSHED PLANNING

Location: Salon A

Moderator: TBD

WELCOME TO THE RIVER MILE

1:30PM

Gregory Murphy - Calibre Engineering; Christopher Kroeger - Muller Engineering; Mike Galuzzi - Merrick

Situated on 62-acres of underutilized Elitch Gardens parking lots, The River Mile will change the face of Denver, from record-topping skyscrapers to connecting with the South Platte in new and meaningful ways; and from establishing a Downtown Energy District to improving stormwater quality along the river corridor. Introducing The River Mile to Colorado's stormwater community, this presentation will focus on stormwater quality and quantity, improvement to the South Platte River, and overall infrastructure master planning.

PLANNING FOR RECREATION AND RESILIENCE ON THE BIG THOMPSON RIVER

2:00PM

Chris Carlson & Kevin Gingery - City of Loveland; Andrew Earles - Wright Water Engineers; Brandon Parsons - THK Associates

We will explore planning and siting issues for various types of constructed whitewater features and venues. The goal is to provide engineers, stakeholders, and planners with an ability to identify whitewater recreation opportunities in their communities.

WATERSHED FRAMEWORK TO MANAGE RUNOFF AND CREATE LOW MAINTENANCE STREAMS – STROH TRIBUTARY CASE STUDY

2:30PM

Andrew Earles - Wright Water Engineers; Jim Wulliman - Muller Engineering; Barbara Chongtousa - UDFCD

The objective of this project is to improve our understanding of the planning and development process from the watershed planning level to the site design level with the goal of better integrating water quality, drainage and flood control in a way that preserves, enhances or mimics natural processes.

FLOODPLAIN MANAGEMENT

Location: Salon A

Moderator: TBD

LOCAL CHOICES AND HOW THEY CAN IMPACT THE NFIP

3:30PM

Traci Sears - Montana DNRC

Elected officials are making daily decisions that could impact local communities and vulnerable flood area. Learn about actions that may assist in reducing the impact of the choices that can undermine the fundamental principles of the NFIP.

HYPER HYDROLOGY: A HOLISTIC VIEW OF COLORADO HYDROLOGY THROUGH THE COLORADO HAZARD MAPPING PROGRAM

4:00PM

Chris Ide, Josh Hill - Wood Environment and Infrastructure Solutions; Thuy Patton - Colorado Water Conservation Board

With diverse terrain comes diverse hydrology. This presentation details the methods used and the challenges that occurred while conducting hydrologic studies in Colorado, from the eastern plains to the western mountains, as part of the Colorado Hazard Mapping Program (CHAMP).

MAKING THE MOST OF IT: LEVERAGING THE CHAMP STUDY FOR OTHER USES

4:30PM

Erin Cooper, Olivia Cecil - Boulder County, Kevin Doyle - Michael Baker International
CHAMP has armed Boulder County with a wealth of high quality flood risk data. Boulder County has been leveraging the data to provide useful flood risk products to residents, and other County staff beyond the standard Flood Insurance Rate Maps.

WATER MEDLEY

Location: Salon B

Moderator: TBD

OH NO! WE'VE GOT TO GO UNDER IT!

1:30PM

Becky Brock - Brierley Associates; Chris Knott - BTrenchless

Tunneling can be an essential component for conveying flow when your storm drain alignment crosses beneath a railroad or highway. An engineer and contractor will discuss project considerations along with methods and materials that are well suited for stormwater tunnels.

PLANNING AND SITING OF RECREATIONAL WHITE-WATER FEATURES

2:00PM

Brooke Seymour - UDFCD; Richard McLaughlin - Merrick & Company

We will explore planning and siting issues for various types of constructed whitewater features and venues. The goal is to provide engineers, stakeholders, and planners with an ability to identify whitewater recreation opportunities in their communities.

NATURE PLAY DESIGN GUIDELINES – TECHNIQUES FOR INCLUDING NATURE PLAY WITHIN FLOOD-PLAINS

2:30PM

Cassie Kaslon - Valerian LLC; Frans Lambrecht - CH2M/Jacobs; Adam Bienenstock - Bienenstock Natural Playgrounds

In September, 2017 Design Guidelines for Nature Play in the Built Environment were released. In this 30-minute presentation we will review the Floodplain Interface section of the guidelines to discuss specific techniques for integrating nature play into a floodplain.

PROFESSIONAL DEVELOPMENT

Location: Salon B

Moderator: TBD

THE TRUTH ABOUT MOTIVATION AND BUILDING A TEAM

3:30PM

Emily Villines, MA, CPSM - Calibre Engineering

What really motivates you on-the-job? Is it innovation? Is it challenge? Is it money? The truth behind motivation is this: in the end, we are not all so different. Drawing upon the teachings of Daniel Pink and Daniel Coyle, this presentation will introduce the concepts behind what really motivates us, helping you learn how to motivate not just yourself but your peers, your team, your supervisors, and your colleagues.

WONDERLAND CREEK LESSONS LEARNED

4:00PM

Robert Glenn, Kurt Bauer - City of Boulder

The City of Boulder is completing construction of a 21-million-dollar flood and greenway improvement project. This project will provide 100-year channel improvements for one mile of creek. This presentation will highlight the lessons learned from design, funding, and construction.

ASK THE FLOOD CONTROL DISTRICT

4:30PM

Shea Thomas, Laura Kroeger, Dave Bennetts - UDFCD

We are hosting a session where the subject is UDFCD, but the focus is you. Join us to discuss whatever has been on our mind relating to UDFCD and play a role in growing our learning community together.

7:00PM TO 9:30PM

CASFM Dinner & Awards Ceremony

Location: Salon A & B

Sponsored by: Stream Landscape Architecture & Planning

stream
landscape architecture • planning

9:30PM TO 11:30PM

Trivia & Karaoke

Location: Trivia (Salon A & B)

Karaoke: The Overlook

Sponsored By: Muller Engineering (Karaoke) & CORVUS Environmental (Trivia)



MULLER
ENGINEERING COMPANY

THURSDAY TECHNICAL SESSIONS DETAILS

EMERGENCY PREPARATION

Location: Cathedral Park

Moderator: TBD

EXTREME RAINFALL EVENTS ALONG THE FRONT RANGE OF COLORADO: HOW MUCH DID WE FIND AND HOW MUCH DID WE MISS?

1:30PM

Baxter Vieux - Vieux & Associates, Inc; Kevin Stewart - UDFCD

Advancement in rainfall monitoring tech. is helping to better identify flood-producing rainfall. Radar and rain gauge technology improves flash flood prediction and our understanding of where and when extreme rainfall patterns have occurred, especially between the gauges.

INNOVATIVE PRODUCTS FOR COMMUNITIES - RISK MAP OUTSIDE THE BOX

2:00PM

Geoff Uhlemann - AECOM; Thuy Patton - Colorado Water Conservation Board

We will discuss advanced products created for the Animas Watershed Risk MAP study evaluating risk from flooding, post-fire flooding, and other natural occurrences (e.g., avalanche, debris, fire, ice jamming, and others) and how they stemmed from a joint discovery.

MAPPING FLUVIAL HAZARD ZONES: DEVELOPING QUANTITATIVE GUIDANCE, APPLICATION, AND PILOT MAPPING PROGRAM

2:30PM

Stephanie DiBetitto - Colorado Water Conservation Board; Joel Sholtes - Bureau of Reclamation; Katie Jagt - Watershed Science and Design

Colorado has recently developed a fluvial hazard zone (FHZ) mapping pilot program. This presentation will introduce the programmatic aspects of the FHZ program including how it came to be, and discuss the mapping procedures and technical results of the studies.

EVACUATION PLANNING FOR EXTREME EVENTS: FAILURE OF THE CHERRY CREEK DAM

3:30PM

Jeffrey Brislaw, Kyle Karsjen - Wood Environment and Infrastructure Solutions

This presentation will cover the considerations and challenges in planning for catastrophic flooding in a densely populated urban environment involving multiple jurisdictions and range of flooding scenarios, from controlled release (non-failure) to complete failure of the dam.

FLOOD RISK RELATED TO DAMS

4:00PM

Kallie Bauer, Bill McCormick - Colorado DNR - Dam Safety

The potential for flood hazards from dam releases or spillway flows exists. Colorado Dam Safety has developed a tool for ranking dams in Colorado by risk factors that could lead to downstream flooding.

SHOWCASING BOULDER COUNTY'S FLOOD RISK INFORMATION SYSTEM (FRIS) - A PILOT PROJECT FOR HOLISTIC FLOOD RISK COMMUNICATION

4:30PM

Madeline Kelley, Thuy Patton - Colorado Water Conservation Board

This program is a continuation of what was presented last year. A live product is now available to present and discuss the overall process and resulting platform's capabilities and limitations.

THURSDAY SEPT. 27, 2018

8:00AM TO 9:00AM
Breakfast

Location: Salon A & B

Sponsored By: Bohannon Huston

Bohannon  Huston

9:00AM TO 10:00AM

Featured Speaker | Josh Duncan, MountainChild

Moderated By: TBD

Location: Salon A & B

10:00AM TO 11:30AM

2018 Award Finalists

Moderated by: Colin Wagoner - Calibre Systems

Location: Salon A & B

11:30AM TO 1:00PM

General Membership Lunch Meeting

Location: Garden Terrace

1:00PM TO 1:30PM

Break

1:30PM TO 5:00PM

Technical Sessions (See Thursday Technical Sessions below for details)

5:00PM TO 6:30PM

Happy Hour

Location: Vendor Area

Sponsored By: ERO Resources

ERO

GREEN INFRASTRUCTURE & LID

Location: Salon A

Moderator: TBD

QUANTIFYING VOLUME REDUCTION IN GRASS SWALES AND GRASS BUFFERS

1:30PM

Holly Piza - UDFCD; Andrew Earles - Wright Water Engineers

The new Phase II MS4 permit includes a design standard for runoff reduction. Developing a tool for implementation involved literature review, field tests, and detailed SWMM analysis. New criteria along with an Excel-based tool are the product of this work.

NAVIGATING THE NEW JERSEY AND WASHINGTON STATE STORMWATER PROGRAMS AS MODELS FOR APPROVING MANUFACTURED TREATMENT DEVICES

2:00PM

Mark Miller - AquaShield, Inc.

This presentation identifies fundamental and subtle aspects of the New Jersey and Washington State stormwater programs to use as models for local approvals of proprietary manufactured treatment devices based on performance evaluations of laboratory and field testing protocols.

STACKING THE BENEFITS OF LID AND PERMACULTURE

2:30PM

Patrick Padden - Padden Permaculture, Basil Hamden - City of Fort Collins

Low Impact Development (LID) infrastructure can address the challenges of cleaning stormwater and mitigating flood risk. It also offers the opportunity to fully utilize rainwater to create a ripple of positive benefits. This presentation will address how the implementation of rainwater collection systems at the local scale can be used in providing permaculture that will enable the use of an essential water resource such as rainwater in creating agricultural ecosystems that are sustainable and self-sufficient.

STORMWATER QUALITY/TREATMENT

Location: Salon A

Moderator: TBD

COMPREHENSIVE WATERSHED PLANNING TO PRIORITIZE, TARGET, AND IMPLEMENT MULTI-PURPOSE PROJECTS

3:30PM

Darren Beck - HR Green, Inc.

Minnesota's One Watershed, One Plan provides a case study as Colorado moves toward implementation of the State's planning efforts and promotes discussion for how existing and future watershed plans may be integrated to prioritize, target, and implement multipurpose projects.

DEVELOPING A COMPREHENSIVE STORMWATER INFRASTRUCTURE MASTER PLAN TO MEET MULTIPLE OBJECTIVES

4:00PM

Drew Beck - Matrix Design Group

The City of Colorado Springs Stormwater Infrastructure Master Plan (SIMP) collects, standardizes, and integrates information on stormwater capital and O&M projects needed to address current and future stormwater and drainage conditions in the City.

STRATEGIC PLANNING FOR GREEN INFRASTRUCTURE IN BOULDER

4:30PM

Candice Owen - City of Boulder

The City of Boulder is embarking on a strategic planning process to understand how to best implement stormwater green infrastructure. The plan focuses on two primary areas with internal city stakeholder engagement: process and policy and prioritized pilot projects.

STREAM RESTORATION

Location: Salon B

Moderator: TBD

WHEN ENGINEERS GO WILD!

1:30PM

Rich Borchardt, Barb Chongtoua - UDFCD

Have you walked next to your favorite creek and been inspired? Rich and Barb walked along Cherry Creek exploring it. After seeing it, they've been inspired to Go Wild to make a healthier and happier stream.

URBAN STREAM DESIGN - HOW WE GOT TO NOW

2:00PM

Dave Skoudas - UDFCD; Mary Powell - Corvus Environmental Consulting

A look at the evolution of urban stream design through the lens of five continuous miles of a single stream that has been configured differently each ½ mile or so, giving each reach its own "vintage".

VIESTENZ-SMITH MOUNTAIN PARK - LET THE RIVER BE YOUR GUIDE

2:30PM

Dan Evans, Chad Morris- Tetra Tech; Merinda Bennet - City of Loveland

The September 2013 flood caused devastating damage to the City of Loveland's historic Viestenz-Smith Mountain Park. Restoring the park and providing a resilient design was the City's primary objective which required an approach that "Let the River Be the Guide".

GUNNISON RIVER AND RIPARIAN HABITAT RESTORATION PROJECT

3:30PM

Steve Westbay - City of Gunnison; Dan Brauch - Colorado Division of Parks and Wildlife

This presentation addresses a river/riparian restoration program located in the Gunnison River State Wildlife Area. The Colorado Division of Parks and Wildlife and City of Gunnison partnered in the restoration project on a 1.5 mile river reach. Collaboration was the key element for successfully implementing this unique restoration project.

DRONE BASED RIPRAP IMAGING AND GRADATION MEASUREMENT

4:00PM

LeAndra Nelson, George Cotton, Ben Constable - Kiewit Infrastructure Engineers

This presentation shares KIE's experience in the use of drone acquired images to comprehensively determine riprap rock gradation in a river corridor. A case study is presented for the US34 permanent flood repair project in Big Thompson Canyon, Colorado.

ACTION & REACTION: APPROACHES FOR UNDERSTANDING SEDIMENTATION & EROSION

4:30PM

Matthew Johnson, Brinton Swift - HDR

Before escalating to a sediment transport model, there are simplified approaches to apply to understand changes on the riverine environment. This presentation focuses on some simplified approaches and highlights drawbacks, limitations, and solutions for each.

FRIDAY SEPT. 28, 2018

7:30AM TO 8:30AM

Breakfast

Location: Salon A & B

8:30AM TO 9:00AM

CASFM Chair Closing Remarks

Deb Ohlinger - Olsson Associates

Location: Salon A & B

9:00AM TO 12:00PM

Workshop: Inspection & Maintenance of Post-Construction BMPs

Tyler Dell - Colorado Stormwater Center

Location: Salon A & B

9:00AM TO 12:00PM

Field Trips

MOUNTAIN BIKE TOUR (9-12) | Led by Rich Ommert - RE-SPEC

Meeting Location: TBD

JOHN DENVER SANCTUARY (9-12) | Led by April Long - City of Aspen

Meeting Location: Meet at the Sanctuary.

GUIDED HIKE TO MAROON LAKE (9-12) | Led by Aspen Center for Environmental Studies

Meeting Location: TBD

9:30AM TO 1:30PM

Golf Tournament:

Location: Gypsum Creek Golf Course

Sponsored By: Contech Engineered Solutions



Schedule at-a-glance

TUESDAY, SEPTEMBER 25, 2018			
8:00	Floodplain 101		
9:00			
10:00			
11:00			
12:00			
1:00			
2:00		Bulletin 17C Training	
3:00		Transitions: Fostering Community During Change	
4:00			
5:00		Dinner on Your Own	
6:00			
7:00			
8:00-9:00	Ice Breaker Social Hour Sponsored by Triton		

WEDNESDAY, SEPTEMBER 26, 2018			
7:00		Certified Floodplain Manager (CFM) Exam	
8:00	Registration and Breakfast		
9:00			
10:00	CASFM Chair Welcome		
	Keynote Address - "Tackling the Impossible" by Teju Revilochan		
11:00			
12:00	Lunch Board Member Meeting		
1:00	Break		
2:00	Technical Modeling	Watershed Planning	
		Water Medley	
3:00	Break		
4:00	Technical Modeling	Floodplain Management	
		Professional Development	
5:00	Happy Hour Sponsored by RESPEC		
6:00	Dinner on Your Own		

THURSDAY, SEPTEMBER 27, 2018		
8:00	Breakfast Sponsored by Bohannan Huston	
9:00	Featured Speaker: Josh Duncan, MountainChild	
10:00	2017 Project Award Finalist Presentations	
11:00		
12:00	Lunch General Membership Meeting	
1:00	Break	
2:00	Emergency Preparation	Green Infrastructure & LID
		Stream Restoration
3:00	Break	
4:00	Emergency Preparation	Stormwater Quality
		Stream Restoration
5:00	Happy Hour Sponsored by ERO	
6:00	Break	
7:00-9:30	CASFM Association Dinner and Awards Sponsored by Stream	
9:30-11:30	Trivia (Sponsored by Corvus) & Karaoke (Sponsored by Muller)	

FRIDAY, SEPTEMBER 28, 2018						
7:00						
8:00	Breakfast					
	Closing Remarks					
9:00	Workshop: Inspection & Maintenance of Post-Construction BMPs	Mountain Bike Tour	John Denver Sanctuary	Guided Hike to Maroon Lake		
10:00					Golf Tournament Sponsored by Contech	
11:00						
12:00						
1:00						
2:00						

Color Key

- Workshops & Sessions
- Social Events
- Meals & Food
- Break
- CFM Exam
- Field Trips & Tours

Gold Sponsors



Silver Sponsors



Bronze Sponsors

Anderson Consulting Engineers

Dewberry

Ayres Associates

Nickel Sponsors

HR Green

Michael Baker International