

Save the date!

2022 CASFM Conference
Steamboat Springs

Tuesday, Sept. 13–16



The Colorado Association of Stormwater
and Floodplain Managers

The Open Channel

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A Word From the Chair



Drew Beck, Chair

As I reflect back on 2021, I continue to be inspired by our resilient communities. The pandemic continues to throw curveballs at all of us and we continue to evolve and adapt. Despite the 2021 curveballs our CASFM community was also able to adapt and still award research grants, schol-

arships, hold lunch and learns and deliver a virtual-hybrid conference with virtual presentations and some in-person events, including golf tournaments, mountain bike trips, water quality tours and happy hours. I am thankful that we

were able to bring these many engagement opportunities to our members. I also want to thank the tireless efforts of our many volunteers, both past and present, without them CASFM would not be what it is today. Specifically, I would like to thank our outgoing Board Members, Morgan Lynch and Saman Mehdi, as well as Regional Representatives Drake Ludwig, Robert Moore, and Adam Lacy. Also, a very BIG thank you to Sarah Houghland who is stepping down as the Conference Committee Chair after six years. Thank you for all of your creativity and energy in always putting together outstanding conferences.

My 2022 initiative for CASFM is to develop a formal Mission and Vision Statement. I see tremendous value in developing these for any organization to ensure that its members understand the overarching direction and to help make de-

cisions aligning with that direction. I am forming an ad hoc committee to develop some draft statements to deliver to the general membership and am seeking volunteers for the committee. I am especially seeking input from first time volunteers and young members since this Mission and Vision Statement will carry CASFM into the future. Please contact me if you would like to participate.

In closing, I ask that we remember those we lost in 2021 to tragic flood events in Germany, Alabama, North Carolina, New York, and across the World. We honor them by continuously trying to make each of our communities safer and more resilient to flood events. Thank you for your commitment to CASFM and our industry and I look forward to finally seeing you in person in 2022 (fingers crossed!)

-Drew Beck

The Long Island Expressway in New York City was shut down due to flash flooding during tropical storm Ida. Photo by Tommy Gao/Wikimeida Commons.



2021 CASFM Conference Review

Virtual Insanity 32nd Annual Conference, 2nd Virtual Conference

Our theme this year, “Virtual Insanity,” reflected the conference committee’s mood as we were planning for our 2nd virtual conference. As always, the conference was a great way to reconnect with the stormwater and floodplain management community after months of separation. It was nice to catch up with peers and to share information, new technologies, innovative ideas, and new developments that have occurred since the 2020 virtual conference. While we were unable to include many of our usual conference activities in the virtual conference schedule — workshops, morning yoga, the awards banquet, networking! — we were able to provide some continuity and continue CASFM conference traditions like crowning the 2021 Engineering Excellence Project Award winner, raising funds for the CASFM scholarships, giving out raffle prizes, and providing a forum for our industry to connect. We were very excited to offer several in-person activities at the regional levels including two golf tournaments, four water quality BMP tours, a bike tour, and multiple happy hours! The different events took place over the course of the conference week, and while we admit that it’s still not the same as getting everyone together in one place, the live events added some much-needed face-to-face interaction for those who could attend.

A standout moment during the conference was our keynote speaker, John Garrett — The Recovering CPA. John’s mission is to create better workplaces by asking his audiences, “What’s your And?” His research shows that organizations achieve better business outcomes when leaders foster working environments that grant individuals permission to be unique amongst their peers. His insightful and humorous presentation seemed well-received by conference attendees and we are thankful that John was able to work around the ever-changing circumstances that COVID brought over the past couple of years.



John Garrett,
The Recovering CPA

The conference program shows you how much work has gone into planning and executing this event! A special thanks to those who facilitated the multiple in-person events that took place in different cities and different days throughout the virtual conference. Your work truly added some fun opportunities for networking and interaction and made this conference feel a little different than the previous year!

If you would like to check out the presentations, you can go to the [CASFM YouTube page](#).

2021 Engineering Excellence Award – Non-Construction

Beginning in 2020, the Engineering Excellence award was divided into two main categories: Construction and Non-Construction projects. The awards are given in alternating years. For 2021, the Engineering Excellence Award was given to a Non-Construction project. This year, we were fortunate to have two outstanding projects to choose from! Our runner-up project, **Upper Clear Creek Pre-Wildfire Planning Study (Upper Clear Creek Watershed Association, Matrix Design Group)** was a strong candidate that identified and assessed sustainability and resiliency of the Upper Clear Creek Water-

The Board and Conference Committee would like to thank the presenters, moderators, sponsors, volunteers, and attendees for navigating the “Virtual Insanity” for another year. We rely on you to provide guidance and leadership for CASFM and the annual conference, and this would not be possible without each of you.

Looking back at the confer-

ence shed in pre- and post-fire scenarios. The study produced actionable projects focused on enhancing resiliency regarding the hydrology, hydraulics, and ecology of the watershed.

The winner of the inaugural **2021 CASFM Engineering Excellence Award – Non-Construction** category was the **Globeville Stormwater Systems Study (City and County of Denver DOT, Merrick & Company)**. In Spring 2018, the City and County of Denver Department of Transportation and Infrastructure launched the Globeville Stormwater Systems Study to evaluate the Globeville basin and explore solutions to the South Platte River and local stormwater flooding. The Study was a partnership with the community, project team members, city staff, elected officials, stakeholders and community members. Through participatory basin tours and educational workshops, this group studied basin topography, historical industrial development and key land use patterns that influence today’s physical conditions, runoff patterns and flooding.

Developing a keen understanding of the historical and current physical constraints and conditions was fundamental to the community conversation around future improvements needed to address flooding and ensure integrated community benefits. This approach recognized the importance of utilizing previous drainage infrastructure studies within the basin while conveying complex, technical drainage information through easy-to-understand graphics and educational materials. “Community-centric” neighborhood-level discussions of green and gray infrastructure, integrated aspects of stormwater management and innovative solutions that address local flooding concerns as well as neighborhood needs were critical aspects of building a stronger, more resilient Globeville community.

Thanks to both of our award nominees and the team of volunteers that reviewed award submissions!

2022 & 2023 Conference Planning

2022 Conference Planning Update

Assuming we are back to business as usual for 2022, the CASFM conference will make a triumphant return to Steamboat Springs! The last time we were in Steamboat was September 2013, and we are eager to return to this popular conference venue. The conference committee will provide more in-forma-tion regarding lodging when conference registration opens in July 2022.

Save the date:

2022 CASFM Conference: Steamboat
Tuesday, September 13 – Friday, September 16

The Steamboat Grand
230 Mount Werner Circle
Steamboat Springs, CO 80487
www.steamboatgrand.com

The Calls for Presentation Abstracts and the Engineering Excellence Award—Construction will be distributed to the CASFM membership in early March. Deadline for submission will be May 6, 2022.

We are excited continue the Engineering Excellence Award format change that began in 2020 and will continue at the 2022 conference! For 2022, CASFM is soliciting Construction project nominees. Projects that are eligible will need to be completed between May 2020 and May 2022.

Additional information will be posted to the Annual Conference page on the CASFM website when it becomes available. Please feel free to reach out to Conference Committee members if you have questions.

2023 Conference Planning Update

Planning for 2023 is already in the works! Due to venue availability, the 2023 CASFM Conference will shift earlier in the week compared to our “typical” conference format so we wanted to start getting the word out early.

Save the date:

2023 CASFM Conference: Keystone
Monday, September 18 – Wednesday, September 20

Keystone Conference Center
633 Tennis Club Road
Keystone, CO 80435
www.keystoneresort.com

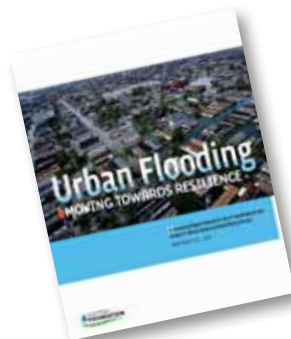




The Association of State Floodplain Managers (ASPFM) Foundation (Foundation) was established in 1996 as the charitable arm of ASFPM. Importantly, the Foundation acts as a forward-looking catalyst for ASFPM, its Chapters, and members to advance projects, education, and policy initiatives that promote *actions* leading to reduced flood risk and resilient communities.

The Foundation is a premiere advocate for the floodplain management profession and serves as a voice for floodplain management practitioners, suppliers, and service providers nationwide, and in some cases globally. The Foundation has played a key role in the development of the Certified Floodplain Manager (CFM) certification program, which is foundational to establishing and maintaining the credibility of floodplain managers across the country. The Foundation continues to support the profession in many ways that bolster the CFM program. The following describes but a few of these important initiatives:

- » In February 2020, the ASFPM Foundation released a report titled **“Urban Flooding: Moving Towards Resilience,”** to document important discussions by world class experts who attended the Foundation’s 6th assembly



of the Gilbert F. White National Policy Forum. The report showcases the in-depth engagement on urban flooding issues by more than 100 experts from local, state, and federal agencies; professional associations; environmental groups; and private organizations. The report can be downloaded from the [ASPFM Foundation website](#).

- » The ASFPM Foundation announced the award of its 2020-2022 Future Leaders Scholarship to Elizabeth Lacey at the ASFPM Virtual Conference in June



2020. Elizabeth is entering her third year in the Civil Engineering Honors Program at Colorado State University in Fort Collins, Colorado. She is the second student of what we hope are

many more to come to receive this \$20,000 per year scholarship with the goal of developing future leaders in the floodplain management field. Elizabeth’s acceptance message can be found on the [ASPFM Foundation website](#).



- » The ASFPM Foundation provided funding for, and partnered with ASFPM Flood Science Center to develop **“Flood Mapping for the Nation Report”** and **“Understanding and Managing Flood Risk: A Guide for Elected Officials.”** Both of these documents provide valuable information to floodplain management practitioners and can be found on the [ASPFM Flood Science Center website](#).
- » The ASFPM Foundation again partnered with FEMA Region VIII and Earth Force to sponsor the 2020 Rocky Mountain Environmental Hazards Challenge, now referred to as the [Rise Challenge](#). This is an annual



competition that combines project-based learning with the latest research in science, technology, engineering, and mathematic (STEM) education.

Donations are the primary source of funding for the ASFPM Foundation. We cannot emphasize enough the importance of your contributions in helping us to sustain our current initiatives and develop new ones. The goal of reducing suffering and losses and improving a community’s ability to become safer and stronger in the aftermath of increasingly catastrophic flooding events is at the forefront of everything we do. Importantly, we also promote sustainable management of the nation’s floodplains and watersheds. For more information regarding the ASFPM Foundation and how you can donate, please contact George Riedel, Foundation Donor Coordinator, at George@aspfmfoundation.org.



Elizabeth Lacey, ASFPM Foundation Future Leaders Scholarship Recipient, shares her experiences as a 2021 Summer Intern with Michael Baker International

This summer I had the opportunity for an in-person internship with Michael Baker International that came through my professional networking with members of the ASFPM Foundation. This was only financially possible because the Foundation invited me to stay in its DC-based corporate apartment for the months I was there. Travelling to and living in the historic Washington, D.C. area this summer was one of the most positive and fascinating experiences that I have had. That coupled with the tremendous team I worked with at Michael Baker and my mentor, Allison Andrews, reinforced my desire to pursue Civil Engineering. I am profoundly grateful to the ASFPM Foundation for the opportunity to expand my knowledge and learn how my degree can be applied in a real-world setting.

The two main projects that I worked on were determining the Base Flood Elevation (BFE) for a 100-year flood in different areas and working on the hydraulics and hydrology of a bridge project. I learned much about the different types of programs and analysis methods that can be used to determine the BFE, and how to determine whether a structure or property was

above or below that BFE. I also learned how to use HEC-RAS and the process of determining the impact of a bridge on water surface elevations and pier scour. Learning hydraulics and hydrology in a practical setting this summer has helped prepare me for my senior classes at Colorado State University. My on-the-job understanding of hydraulics and hydrology has transformed the theoretical knowledge of the textbook. Equally exciting was the opportunity to travel to downtown Washington to see firsthand FEMA Headquarters (see photo).

Throughout this summer, I was able to go in person to my internship and explore the Washington area, paying close attention to the COVID requirements that kept me safe. One of the most meaningful places to me was the National Mall, with the profound writings of those who walked before me and are honored in all the memorials and monuments. Experiencing the view at the top of the Washington Monument was one of my favorite things in that it showed me the bird's-eye view of our Nation's beginnings in the form of the beautiful City of Washington, and how it still thrives today. It was especially interesting to learn about the different ways that flooding has affected the monuments and memorials and how floodplain management has helped prevent some catastrophic events.

As I toured Washington and floated on the Potomac River on the ferry, the bridges and water management projects were a site to behold. Touring around Alexandria, VA and going to the Wharf to look out over the Potomac River was a fulfilling experience as I contemplated the older technology and methods that have been displaced by the current civil engineering methods.

I am looking forward to continuing to work with Michael Baker for the depth of projects they manage for their clients and count it a privilege to be a part of the ASFPM Foundation. My partnering with both these organizations has allowed me to learn more about floodplain management than I would have merely in a college textbook! I am grateful to the ASFPM Foundation for the tremendous opportunity and the scholarship, which allowed me to take my desire to help others, which sprang from my family's challenges with Hurricane Katrina 16 years ago, and see it come to fruition.

2022-2024 Future Leaders Scholarship Application

The ASFPM Foundation established the Future Leaders Scholarship for a deserving college student looking to pursue a career in the floodplain management field. The Foundation's vision for the scholarship is to create an additional pathway to advance flood risk management research and practice by helping support the education of future flood risk management professionals. Each scholarship will be awarded to a deserving college student who plans to work after graduation in a profession that directly, or indirectly, supports the field of flood risk management. The successful recipient will receive direct financial assistance, mentoring and support, and assistance finding a paid summer internship in a relevant professional setting.

Future Leaders Scholarship applications for the 2022-2024 Future Leaders Scholarship are now being accepted by visiting the Scholarships page on the Foundation's website <https://www.asfpmfoundation.org/scholarships/future-leaders-scholarship>. The Future Leaders Scholarship is a 2-year scholarship providing financial assistance up to \$20,000 per year. Students entering their junior year in a 4-year undergraduate program or entering the last two years of a 5-year or dual degree undergraduate program beginning the fall semester of 2022 are eligible. **Importantly, applications will be due on or before February 1, 2022**, so it's imperative we get the word out for students to take full advantage of this opportunity. We continue to look for the best and brightest to make sure we sustain a strong floodplain management community into the future. If our current and past FLS recipients are any indication, we are well on our way! We encourage you to share this information with your family, friends, and colleagues to ensure we reach as many college students as possible.

Scholarship Committee Update



Heaven McKinley
CASFM Ben Urbonas Scholarship Winner

The 2021-2022 Ben Urbonas Scholarship recipient is Heaven McKinley. Heaven is a full-time graduate student at Colorado School of Mines, studying Hydrology. Her interests include watershed modeling in support of flood risk mitigation and investigating the hydrologic impacts of climate change. In her coursework and internship experience, she has enjoyed creating hydrologic models using a variety of different programs and finding ways to incorporate her commitment to social responsibility.



Mira Houck
CASFM Family Scholarship Winner

The 2021-2022 Family Scholarship recipient is Mira Houck. Mira graduated from Jefferson Academy in 2019. She currently attends Colorado Mesa University in Grand Junction, where she plays soccer and is pursuing a bachelor's degree in both sociology and elementary education. Her hope is to become a 3rd or 4th grade teacher with an emphasis on diversity and inclusion.



Jackson Winterrowd
Undergraduate Scholarship Winner

The 2021-2022 Undergraduate Scholarship recipient is Jackson Winterrowd. Jackson is from Olympia, Washington. He is a senior civil engineering student at CU Denver graduating in Spring 2022. He plans on completing a master's degree in Hydrologic, Environmental, and Sustainability Engineering in the Spring of 2023 also at CU Denver. After school, he plans on working in the private sector designing stormwater infrastructure and stream restoration projects that will protect communities from flood damage.

Outreach & Training Committee



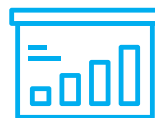
Training Opportunities

- » February Vegetation 101
– Mary Powell, MHFD
- » March Effective Project Partnering
– Dave Skuodas and Laura Kroeger, MHFD
- » April Colorado Springs Stormwater Programming Lessons Learned
– Richard Mulledy, Colorado Springs
- » June 2D Modeling Quick Checks
– Brian Varella, CDOT



Toastmasters

- » We started a CASFM Toastmasters club and have completed all registrations and our first few meetings. The club meets every other week on Wednesday lunch hour. If you are interested in more information, email Dave Skuodas dskuodas@udfcd.org and Jen Winters jennifer.winters@respec.com



2021 CASFM Research Grants

We awarded two research grants (\$2,500 each) this year:

- » Natalie McLennan Collar: researching post-fire evapotranspiration response and recovery timeline.
- » Amanda Guedes Salerno: Develop and study a stormwater green roof project at CSU Spur Campus



2021 CASFM Disaster Grant

Grand County Wildfire Council (\$5000)



Book Club

- » We are starting a CASFM Book Club that will be meeting the first Tuesday of every month from 12-1 PM, starting in January. We will be starting with “Think Again” by Adam Grant. If you are interested in joining, please email Emily Villines at evillines@calibre-engineering.com

705 LinkedIn Followers



Shared networking and posts with American Stormwater Institute, FEMA, Cherry Creek Watershed, RISE Colorado, Mesa County, and more

753 Twitter Followers



27 posts
Over 10,000 tweet impressions

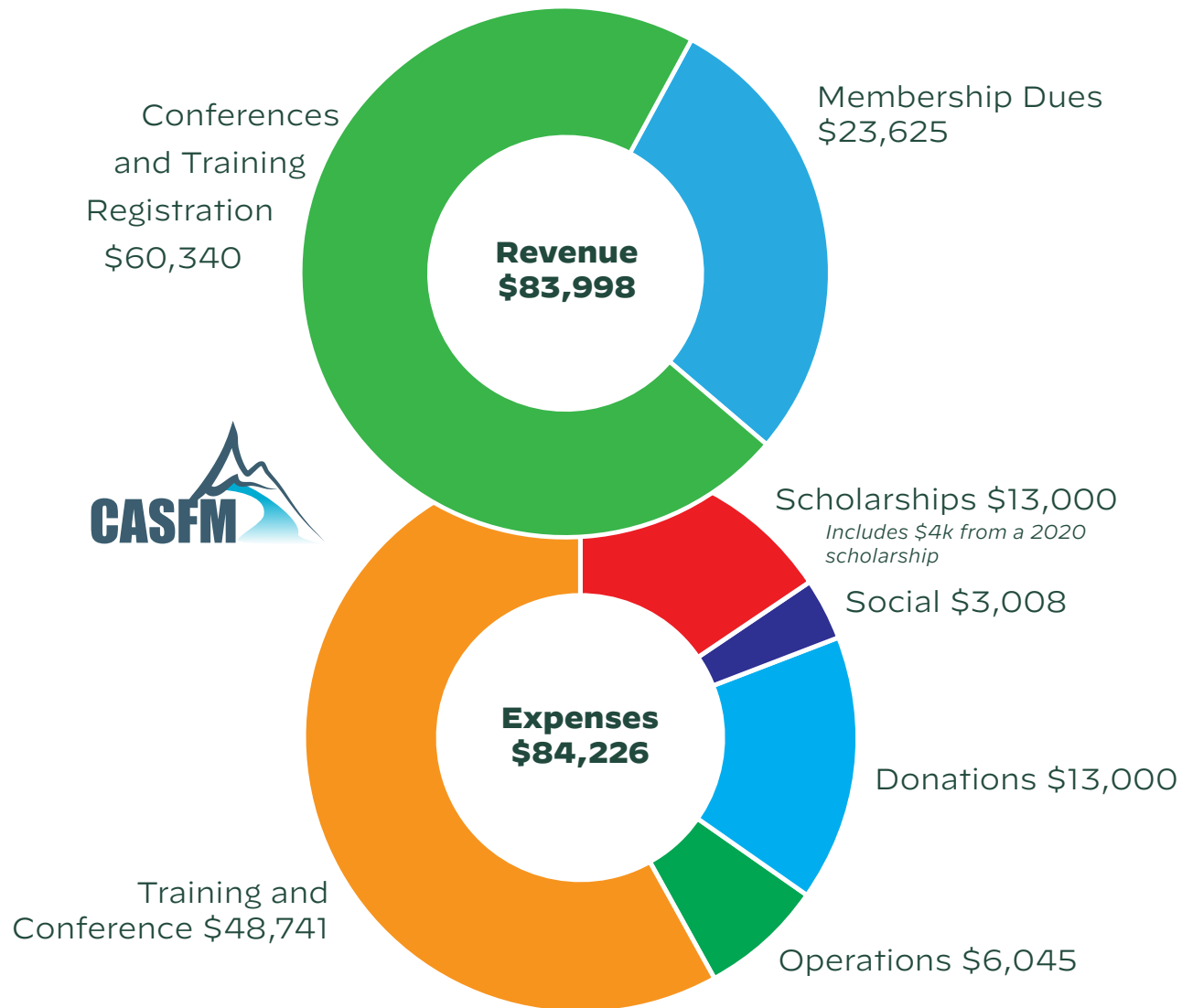
Top tweets—
Lunch and Learn announcements for Spring 2021
178 impressions

2021 Cherry Creek Watershed Conference link
242 impressions

Help our Colorado students learn to solve natural hazard problems. Seeking volunteers to judge student projects
219 impressions

Colorado Springs flood mitigation projects recognized for innovation
172 impressions

Treasurer's Report



*Aerial view of 2021 Malaysian flooding, December 2021.
Photo by AiMediaMY/Wikimedia Commons.*

