

The Open Channel



The Colorado Association
of Stormwater and
Floodplain Managers

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A Word From the Chair



First, I am excited to be Chair of such an impactful organization. I have always enjoyed the many activities, events and trainings that CASFM offers members. The last six months of being Chair has really opened my eyes to all the effort and passion that go on behind the scenes to make CASFM a valuable organization. I was sad to say good bye to the previous Board, we will miss you Deb (past-Chair) and Stacey (past secretary), not to mention the region representatives, Andrew Fisher and Carrie Gudorf that volunteered a lot of time to provide value

in those regions. Brian Varrella has recently resigned as the FTAP Committee Chair. Brian was instrumental in CASFM supporting this important committee, not to mention all his time dedicated to previous CASFM Board positions and positions with ASFPM. Brian will be missed and we hope he still finds opportunities to stay involved. Thanks Brian for all your years of dedication to CASFM.

As Chair, I will follow Deb's steps and continue to support ideas and activities that promote participation in the CASFM community. Thuy and I have also started to reach out to ASFPM to

identify opportunities to increase the value ASFPM can provide to the members here in Colorado. I will provide an update on the effort at the upcoming Board Meeting.

CASFM would not be the organization that it is without the members and volunteers. Please let me know if you are interested in getting involved or have an idea for a future event or activity that may be valuable to all members. Thanks again to all that make this such a great organization and I look forward to seeing more of you in Keystone this fall.

-Morgan Lynch





John Garrett

What's Your And?



Mark your calendar!

2020 CASFM Annual Conference

The conference will be held from Tuesday, September 29-October 2, 2020. A majority of conference activities will be held at the Keystone Conference Center, but lodging will be off-site. The conference committee will provide more information regarding lodging when conference registration opens in July 2020. The conference center address is:

Keystone Conference Center
633 Tennis Club Road
Keystone, CO 80435
(800) 362-3392
<https://www.keystoneresort.com/>

The Call for Presentation Abstracts and Project Awards will be distributed to the CASFM membership in early March. Deadline for submission will be May 8, 2020.

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.

Our Keynote speaker will be John Garrett - The Recovering CPA. His message encourages everyone to find and share the things that ignite them so we can all thrive at work. Unlock the person behind the professional!

If you are interested in reading more about John, here are some useful links for you.

- » Custom CASFM page <https://spark.adobe.com/page/JpvloQQw4RPPT/>
- » Podcast: Professionals who aren't "stereotypical" on [What's Your And?](#)
- » Video: Learn more about [John's message](#)
- » Book: Author of "What's Your And?" to be published in early 2020

30th Annual CASFM Conference



2019 CASFM Conference
Crested Butte, Colorado



Mark your calendar for
the 2020 CASFM Annual
meeting—Sept. 29-Oct 2
in Keystone!

Featured CHAMP Community



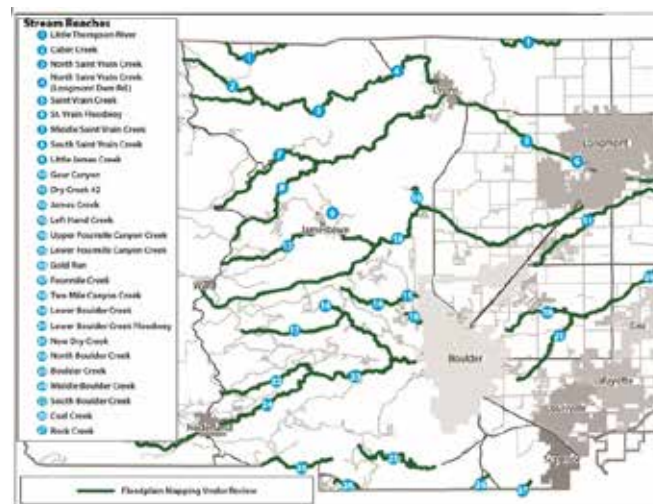
Boulder County and the Colorado Hazard Mapping Program (CHAMP)

The Colorado Hazard Mapping Program (CHAMP) was a 3-year State funded program created in 2015 to map natural hazards in areas most likely to be affected by flooding, erosion, and debris flow events. A majority of the funding focused on remapping stream reaches most impacted by the devastating flood event that took place in September 2013. The Colorado Water Conservation Board (CWCB) was the lead agency coordinating these updates. Boulder County was one of the most proactive communities in the CHAMP process. Over 470 miles re-mapped as part of the effort in the post flood areas with 230 of those miles updated within Boulder County alone. The following bullet points highlight the great efforts that Boulder County took to ensure a successful map update through CHAMP:

- » The county worked with the CHAMP team to develop the new floodplain maps in two phases so that more than 100 flood recovery projects, such as stream and road restorations, could be incorporated into the new mapping.
- » The Board of County Commissioners adopted draft mapping and the Preliminary FIRMs in 2017, 2018, and January 2020. This has allowed the Floodplain Program to regulate floodplain development within

unincorporated Boulder County using the best available information until the CHAMP mapping is incorporated into FEMA's Flood Insurance Rate Maps. Each adoption process involved a hearing before the Planning Commission and Board of County Commissioners.

- » Starting in 2016, the county sought input from residents and homeowners about flood risk and on-the-ground conditions in their area. The public had opportunities to review and comment on maps online or at one of 12 public meetings held from 2016 to 2018. Over 200 comments were compiled and sent to the CHAMP team. The county held six additional public meetings around the county in January 2020 to allow the public to review the Preliminary FIRMs recently released by FEMA.
- » The county developed and maintained a project website (www.BoCoFloodplainRemapping.com) and online map application for draft map data. The online map allows residents and stakeholders to view and comment on specific areas of the floodplain maps. Many comments received through this method were passed on to the CHAMP team and resulted in changes to the draft map data. The county continually updated the online maps as new draft mapping became available or



was adopted by the Board of County Commissioners.

- » The county's Floodplain Program published a series of 10 newsletters from June 2016 to January 2020 updating residents and other stakeholders on the remapping project status. The newsletter was shared with over 1,000 email addresses through the county's Floodplain Remapping listserv, as well as local watershed coalitions.
- » Throughout the remapping process, the county's Floodplain Program staff has received support from many county departments, including Public Works, Community Planning & Permitting, the County Attorneys Office, IT, and

others. Andrew Barth and Dave Watson, the Public Information Officer and GIS Manager, respectively, for the Public Works Department, have been particularly helpful in communicating floodplain information to the public through the website and online map applications as well as public meetings. The Floodplain Program also receives technical support through their contract with Michael Baker International; the staff at Michael Baker have assisted with reviews of draft and Preliminary data as well as providing technical support at public meetings and commissioner hearings. Finally, CWCB and FEMA have both been supportive partners throughout the CHAMP process.

Colorado Flood Safety and Wildfire Awareness week



By Kevin Houck, P.E., CFM

CWCB Watershed and Flood Protection Section Chief

There have been notable floods as well as wildfires across the State over the years. According to the National Weather Service, there are over 250 cities and towns in all 64 counties in Colorado have flood prone areas identified. Over 250 thousand people live in floodplains in Colorado and it is estimated that 65 thousand homes and 15 thousand commercial, industrial, and business structures are located in identified floodplains. This year, Colorado flood safety and wildfire awareness week is March 1-7, 2020. The National Weather Service will post a series of events planned during this week. In addition, the CWCB will be releasing a series of tutorial videos related to flood mapping. Please check out www.coloradohazardmapping.com for more details. The following articles have been provided to remind us all of the flood risks that exist and where to go for additional information or resources.



Colorado Flood Safety and Wildfire Awareness week



Know Your Flood Risk!

By Kevin Houck, P.E., CFM

CWCB Watershed and Flood Protection Section Chief

It is almost spring, and for many people throughout Colorado, that means shifting attention away from snowpack accumulation toward the runoff season. Every year, a great deal of attention is placed on the Colorado snowpack and what that might mean for runoff flooding.

Did you know that Colorado has not experienced a runoff-related flood disaster since 1984? There have been many high snowpack years since that time, including last year in 2019. As of mid-February, the state snowpack is equivalent to what it was at this time last year. Should people near rivers be afraid?

It is always proper for those living near rivers affected by snowmelt to exercise caution during runoff season. Did you know that runoff flooding can be experienced in localized areas even in years of lower snowpack? Or that even in epic snow years, such as 2011 and 2019, the runoff season can go off without a hitch and few, if any, flood damages?

The reason is that for runoff to create a flood scenario, two elements are needed. First, there must be snow present, and the more snow there is, the higher the likelihood of flood problems. Second, there must be a triggering event to release the snowpack quickly. This can take the form of a widespread rain-on-snow event or more commonly, an extended period of warm days, usually five or more. Without both elements, runoff flooding is not expected.

It is always worth a reminder that in Colorado, snowmelt runoff is usually very well controlled through a combination of responsible floodplain management, reservoir operations, and natural conditions. In contrast, the vast majority of

damaging events throughout Colorado history have been rain-induced events, most often during the months from May through early October. Even with today's forecasting skill, these events are often not predicted more than a few days in advance and often come with little warning.

Another threat that has heavily grown in recent years is that of post-wildfire flooding for areas downstream of burn scars. The fire leaves behind hydrophobic soils that do not absorb water and take years to recover. Floodplain conditions downstream of these burn scars can be greatly exacerbated, especially in the first two years after a fire.

Be prepared! Know your flood risk. Protect yourself and develop a plan to react to flooding conditions when they occur. Consider flood insurance to protect what is likely your family's biggest investment—your home. And don't drive through floodwaters when you encounter a flooded road—this is the highest cause of flood-related deaths nationwide.



Did you know that Colorado has not experienced a runoff-related flood disaster since 1984?

Flood Insurance

By Matt Buddie

FEMA Region 8 Senior NFIP Specialist

The best time to buy flood insurance was 30 days ago, the next best time is today! This is a twist on the old saying, "the best time to plant a tree was 20 years ago, the next best time is today" and a philosophy that can be applied to almost anything where immediate attention results in a more positive outcome juxtaposed with waiting until sometime in the future. Planting a tree, starting a college savings fund, calling a loved one, building a disaster kit, and yes, buying flood insurance all fall into this category. But what is the force that gives someone the energy to act? The social and behavioral psychologists, among others, are much more eloquent than I at explaining activation energy that motivates us to dig a hole, open an account, pick up the phone, buy supplies, or call our insurance agent but here is what I know: people need to hear the message multiple times from multiple trusted sources. Are you one of those trusted sources? Are you using your position of trusted authority to help others prepare for the future? I have heard numerous stories in the post disaster setting of someone saying, "my surveyor told me consider my flood threat" or "someone at our local volunteer Community Emergency Response Team talked about where to evacuate with our animals." With most of Colorado's river basins above 100% for snowpack it remains to be seen what happens during spring runoff. The time to prepare is now! For more information, including social media toolkits please check out: <https://www.ready.gov/floods>

In Memoriam, Joe Busto (1967-2019)



By Kevin Houck, P.E., CFM



Joe Busto

On December 5, 2019, our state lost an impassioned public servant with CASFM member Joe Busto passing away. A nearly twenty year employee of the CWCB, Joe's passion was on full display with all the work he did, and indeed, he continued working for the agency almost to the day of his passing.

Joe turned Colorado's weather modifica-

tion activities into one of the most respected programs in the country. In fact he served as the president of the North American Weather Modification Council and received two awards, the Black Crow, and the Thunderbird Award, from the Weather Modification Association. He was highly regarded in this field not just in the American Southwest, but indeed in the entire country.

Joe also took the state of Colorado snow science to the next level. One of his passion projects involved improvements to runoff forecasting around the state, but especially in the Rio Grande watershed. Due to his tireless efforts, additional monitoring systems in the form of additional SNOTELs exist to improve the collection of data in the watershed. But his career reached a watershed moment when he spearheaded the effort to develop a local weather radar for the San Luis Valley to address a hole in radar data collected by the National Weather Service. Besides the obvious benefits to emergency management, Joe's vision of the radar was for it to be used for the purposes of snowpack accumulation monitoring and runoff forecasting. And

thanks to his vision and the efforts of many local stakeholders, this became a reality just last year. His efforts live on in the current push to get radar in the Four Corners area as well, using the Alamosa radar process as a blueprint.

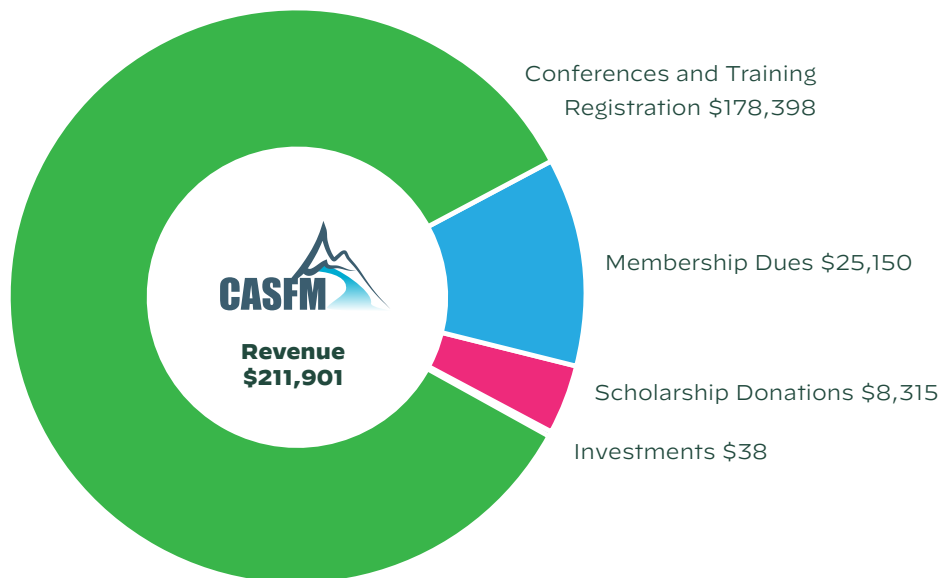
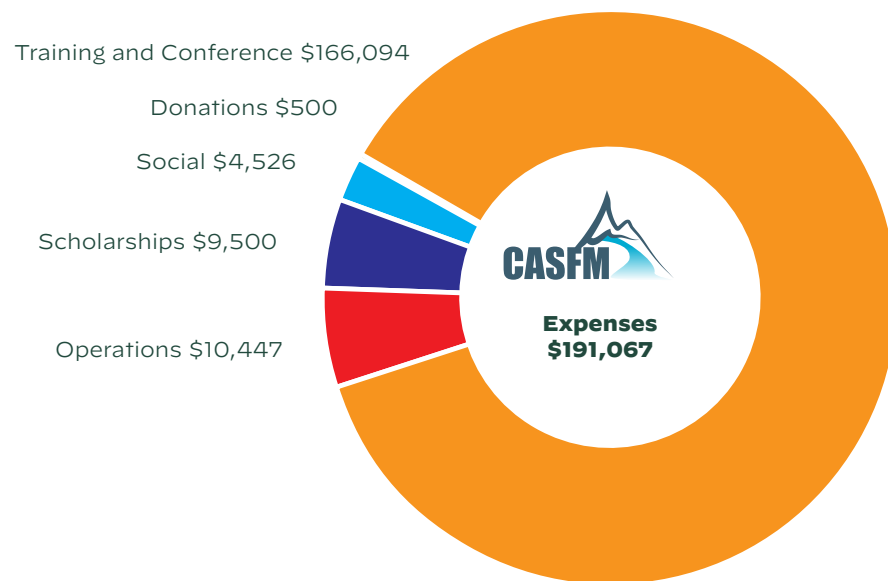
Joe also managed the easement of the CWCB-owned right of way for the South Platte River between the outlet of Chatfield Reservoir and the confluence with Bear Creek. As part of this management effort, he worked with the Corps of Engineers and the Mile High Flood District on never-ending vegetation control and ensured the ongoing flood carrying capacity of the channel. He participated in the South Platte Working Group, and was directly and indirectly involved with many truly visionary projects, including the state award winning project by both the American Public Works Association and American Council of Engineering Companies Colorado Chapters. In fact, his efforts on the South Platte River were so appreciated, that he became only the fourth recipient in the 50-year history of the Mile High Flood District to receive the Friend of the South Platte award.



2019 – Year in Review

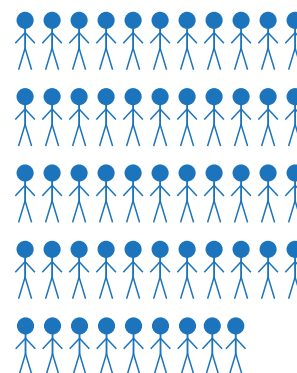


Budget



Education

53 People Passed the CFM Exam



341 People Attended CASFM Trainings, Field Trips, Lunch and Learn events

1 Water Quality Field Trip



3 Scholarships

Lunch and Learn January	36
HEC-RAS 2D Modeling Course February	25
Current Water Issues on the Western Slope	33
HEC-RAS 2D Modeling Course May	27
Lunch and Learn May	74
Water Quality Field Trip	50
Lunch and Learn July	43
Lunch and Learn October	53
Total	341

Outreach

735 followers



90 Tweets in the last 12 months

364 LinkedIn members



Sponsored or promoted events for CU Denver, CWCB, UWRI, EWRI, FHWA, etc.

CASFM has a committee chair position open for FTAP (Flood Technical Assistance Partnership) Committee. Interested? Contact Morgan Lynch, mlynch@udfcd.org