

The Open Channel

Summer 2014 Vol. 25 / Issue 2



2014 Annual Conference
September 30 - October 3.
Vail, Colorado

By Robert Krehbiel

CASFM is an organization of Floodplain Managers that have learned to expect flooding, and yet the events of September 2013 caught us all by surprise. Such an extreme event so late in the year! Now that we got that dreaded "100-Year Event" out of the way, you might be wondering for the next 99 years, why do I need to attend the annual CASFM conference? Well, there are those that say 100-Year events may actually occur more frequently than once every 100 years. Are they the same folks who thought the world was flat? Actually, if the world was flat, wouldn't that result in one gigantic floodplain? Sign up for this year's conference where you can understand what happened while we were high and dry in Steamboat Springs at last year's conference, and learn about the initial and on-going flood recovery efforts. In addition, we have many great presentations on advancements in stream restoration, technical modeling, water quality and emergency preparedness.

Good news! CASFM turns 25 this year, and time for the CASFM members to gather in Vail this year! The last time CASFM held the annual conference in Vail was 1997 and there were just over 100 attendees. This year, we expect nearly 300 attendees. We are excited to be hosting the annual conference at the Vail Cascade Resort. Stuart Gardner did a great job negotiating a contract to keep conference costs as low as possible. The annual CASFM conference is the best deal going at just \$295 for a 3½-day conference (early registration rate)! The Call for Registration will go out in July so keep your eyes open for it to catch the best early rates.

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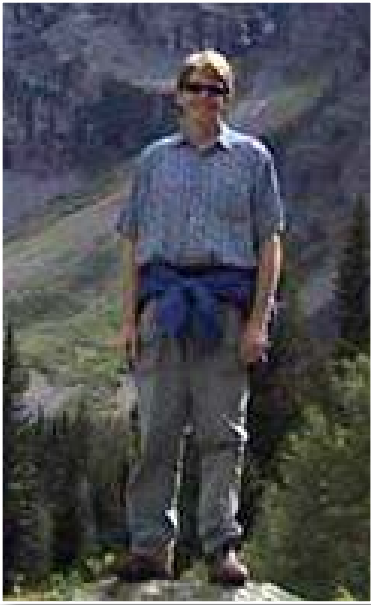
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Brian Bledsoe

The conference committee organized another exciting program. Thank you to all the members that submitted abstracts this year for the conference! Shea Thomas orchestrated a fantastic program with educational workshops, technical sessions and a stream restoration field trip. Our Keynote Speaker this year is Brian Bledsoe professor at Colorado State University. Brian is well known for stream restoration projects and will be presenting on *Resilient and Rambunctious Floodplains*, related to improving the robustness of current floodplain management strategies. Our Featured Speakers are Barry Fagan, from the Alabama DOT and Jesse Poore with Felsburg, Holt & Ullevig who will be informing us about Environmental Leadership through Collaboration.

The annual CASFM conference is a great opportunity to learn about advancements in stormwater and floodplain management, and also a chance to network with your colleagues. CASFM will start off Tuesday afternoon with free technical workshops on Green Infrastructure and Low Impact Development by the Colorado Stormwater Center, and GIS Tools for Hydrology by RESPEC. The conference will continue for the next three days with technical presentations and workshops through Friday noon. A total of 36 technical presentations will be offered in 3 tracks for presentations over two days on Wednesday and Thursday afternoons. Thursday morning will include presentations by three award finalists competing for

the coveted CASFM Engineering Excellence Award.

On Friday, attendees have the option of a workshop on hydraulic modeling, a field trip on the Tenmile Creek Restoration Project, a mountain bike tour or the annual golf tournament. The free Basic Bridge Hydraulics using HEC-RAS 2-hour workshop by Dewberry is a great opportunity to improve your technical modeling skills. The Tenmile Creek Restoration Project showcases stream and floodplain restoration, soil amendment, wetlands creation and revegetation in a heavily impacted reach of Tenmile Creek near the Copper Mountain ski area.

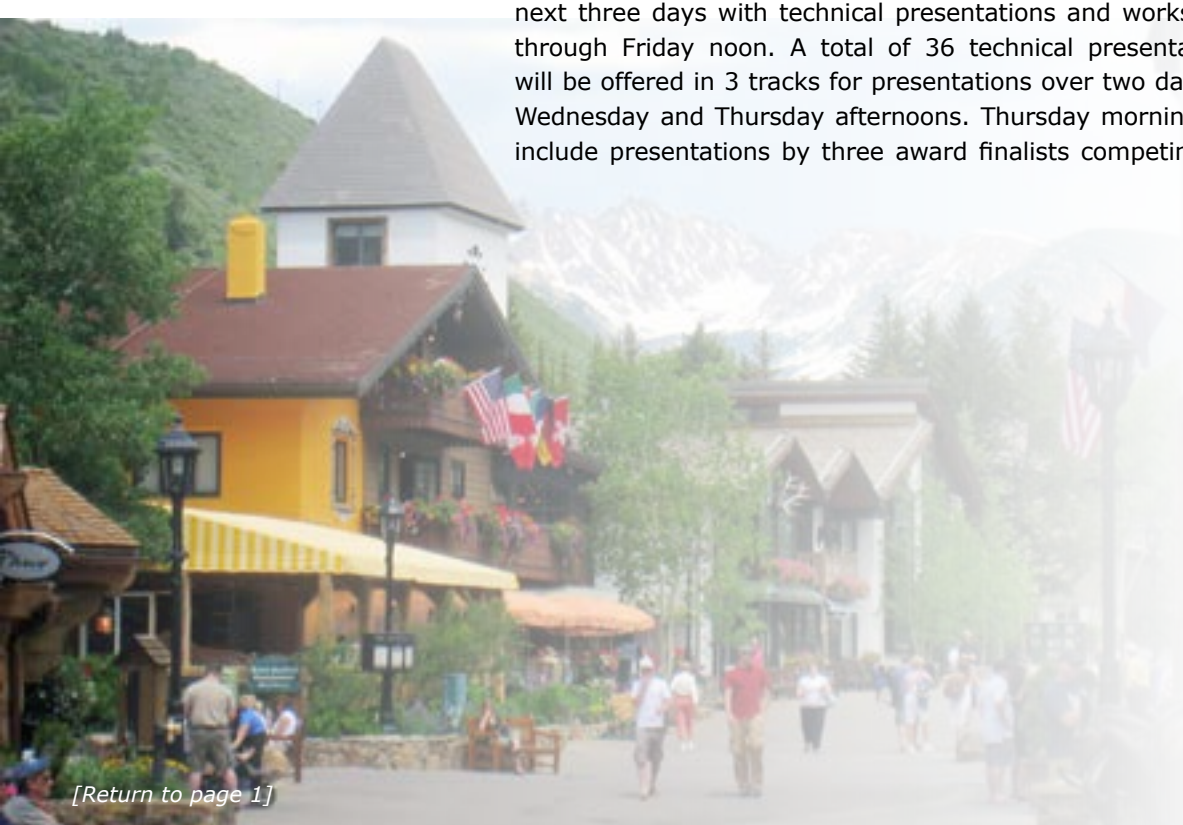
The CASFM conference is also a great opportunity to get your Certified Floodplain Manager accreditation. An all-day training session is offered Tuesday before the conference, with the exam Wednesday morning. Attending the CASFM conference will get your 12 continuing education credits toward your CFM continuing education.

Visit www.CASFM.org for conference updates and conference registration. Remember to register by September 8 for the lowest possible rates. We are excited about this year's conference and hope that you can join us!

There are still sponsorship opportunities for the Conference. Contact Deb Ohlinger (dohlinger@olssonassociates.com) for information about corporate sponsorships and vendor booth exhibits. *



2014 Annual Conference
September 30 – October 3
Vail, Colorado



A Word From the Chair



Brian Varrella, CASFM Chair

It seems improbable that we are already halfway through 2014. I was recently reminded the Annual Conference in Vail is only a couple months away. How did that come back around so quickly?

For many CASFM members, colleagues, clients and stakeholders, the volume of workload and responsibility accelerates the weeks and months. This workload and the responsibility it carries is a heavy burden. I sincerely hope that you will all see our burdens are worthy of a moment of reflection and celebration as you read the articles in this newsletter. All are written by Colorado's own experts in stormwater and floodplain management. With this reflection I encourage you to pause and allow yourself an opportunity to consider your individual impact on the lives and livelihood of all the Coloradans you serve in your respective positions.

I like to return to our purpose statement and goal whenever I prepare articles for our Newsletter. Our

website clearly articulates, **"the purpose of CASFM is to promote wise and beneficial stormwater and floodplain management practices in Colorado. As a non-profit organization, it is our ultimate goal to reduce the loss of human life and property from flood and storm damage."**

In my short tenure as your Chair, I am pleased to report that we meet that goal daily, and we execute our responsibilities consistent with our purpose.

CASFM members, I am infinitely grateful for and proud of all of your accomplishments this year. In the time that has passed since Shea's last newsletter you successfully completed a long list of important activities, including;

- Hosting the February 27 Flood Forum (http://www.casfm.org/Colorado_Flood_Forum/default.htm) with Colorado State University and CASFM Corporate & Agency partners, which the Boulder Daily Camera called "perhaps the most extensive examination of the September flood to have been convened to-date" (http://www.dailycamera.com/news/boulder-flood/ci_25240594/forum-colorado-flood-not-big-one-but-still), and;
- Creating new relationships with state and federal agencies, local and federal decision-makers, and clients and colleagues outside your regular circle of co-workers, and;
- Publishing articles in ASFPM's News & Views (http://www.floods.org/ace-files/documentlibrary/News_Views/June_2014_News_Views.pdf), the Natural

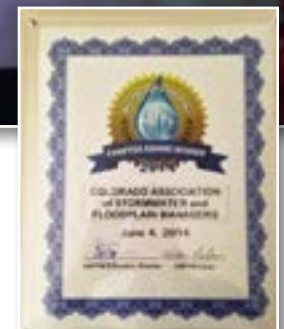
Hazard Center's Natural Hazards Observer (http://www.colorado.edu/hazards/o/archives/2014/july14_observerweb.pdf), the CRS Task Force's NFIP/CRS Update (<http://goo.gl/NF2DkW>), and other journals and newsletters, and;

- Hosting and teaching the field deployed Emergency Management Institute (EMI) 4-day E273 course titled Managing Floodplain Development Through the NFIP (<http://training.fema.gov/emcourses/crsdetail.asp?cid=E273&ctype=R>), and;
- Expanding the use and relevance of social media outlets, including Twitter, LinkedIn and YouTube, to spread our expertise nationwide.

All of these unique activities, along with regular activities initiated by our Committee Chairs



Brian Varrella
accepts the ASFPM
Outstanding Chapter
Award for 2014



...half of the world's population currently lives within 120 miles of the coast.

and Regional Representatives, were compiled for 2013/2014 in a single document. This document, prepared with assistance from our members at **Ols-son Associates**, was submitted to ASFPM as an application for the Outstanding Chapter Award for 2014 and is now archived on our website (http://www.casfm.org/papers/2014_ASPFM_Award_Submittal.pdf). On June 5, 2014, I was pleased to accept this award on behalf of all CASFM members at the ASFPM Annual Conference in Seattle, Washington. I think it is a testimony to the entire CASFM body of almost 800 professionals that we could compete among 35 state chapters and receive this recognition. You all labored for this recognition for nearly 25 years, and I am pleased that we were able to earn it.

CASFM members are growing in both numbers and national influence. Last week I downloaded the list of all CFMs (including state-specific certifications) and discovered Colorado is ranked 5th in the nation for total number of Certified Floodplain Managers (CFMs) at 407! This is fantastic news and illustrates the benefits of Jamie Prochno's efforts to proctor the CFM exam between Conferences. If we can get just 2 more CFMs we can tie for 4th with North Carolina; I'm sure it will happen at the September 30 exam opportunity.

The articles submitted to this newsletter by your members and our national colleagues provide a record of professional best practices, events, consider-

ations, and a summary of the issues and challenges we face in stormwater and floodplain management right now. When I look back at past issues of this newsletter I see some repeated themes and some new challenges that surface on occasion. Recently there has been a national dialogue on a globally changing climate, on the long-term viability and applicability of the National Flood Insurance Program (NFIP), on oil and gas development in floodplains and wetland areas, and on Homeowners Flood Insurance Affordability Act (HFIAA). There are a wide variety of concerns and opinions around these and various other topics, and as I look into CASFM's future I cannot see that we will be able to stay out of the discussion.

Our colleagues in other ASFPM Region 8 states are having the same discussions on the same topics. I attended a presentation by Dr. Holly Bamford at the ASFPM Board Meeting on May 31 where she noted that **half of the world's population currently lives within 120 miles of the coast**. That means even those of us who live above 4,000 feet of elevation will in one way or another be affected by the decisions that are made for and applied to coastal areas. It also indicates that our nation's flood insurance liabilities on both coasts and the Gulf of Mexico are tied to our economy, and given our nation's propensity for structural solutions, we will have to find enough local energy to build the flood mitigation of tomorrow. The best practices of yesterday were informed by the experiences that preceded them. Our experiences of 2013 and 2014 have added to our collective knowledge, and I hope that we can now find an audience for the development of new best practices in stormwater and floodplain management.

I challenge each of you to consider how CASFM can become a relevant part of the national dialogue of new best practices. I believe it starts right here with all of your clients, your customers, stakehold-

ers and neighbors. Do they know what stormwater is, and do they realize floodplain issues affect their lives in Colorado regardless of where they live or do business? Do they know that non-structural mitigation alternatives to flood hazards and stormwater quality exist and are currently being applied by our members? Have they heard of low impact development, or erosion buffer zones, or freeboard, or advisory base flood elevations? Do they realize that every wildfire in Colorado is a prelude to a series of floods like we have seen in Waldo Canyon, Black Forest, High Park and Fourmile? Do they realize that one disaster can create many disasters afterwards, and that we can break the disaster-recovery-disaster cycle with sound mitigation practices?

This is where each of you comes into the discussion. Our 2012 Keynote Speaker, Michael Brown, challenged each of us to get outside our comfortable circle of colleagues and reach out to a world in need outside. This starts in Colorado and ripples outward – that's outreach. Mr. Brown was correct when he said we are doing a good job of talking to ourselves, but as I pointed out at a Plenary Session in Seattle this month, talking amongst ourselves is not outreach, it's in-reach. That is why I was such a passionate sponsor of forming our Outreach and Training Committee last year. That is why I am sharing CASFM's experiences in Colorado to our colleagues across the states. That is why I am taking **John Burke's** advice from 2012 to "sell the vision, not the details...sell some sizzle!" Right on, John...

Our committee chairs are taking the same advice.

"talking amongst ourselves is not outreach, it's in-reach"

“In your personal and professional lives you will face a crisis and your relationships will get you through them.”



Greetings from Seattle!

Jamie Prochno’s **Floodplain Committee** is preparing to explore the applicability of erosion buffers in Colorado from the experiences of Texas, Vermont and other states and cities nationwide. The **Training and Outreach Committee** has one of the most ambitious and impactful visions I have ever seen from a CASFM committee. The **CRS Committee** is carefully dissecting the new CRS Manual standards to understand the details and help Colorado communities apply those standards. Our **Stormwater Quality Committee’s** field trip, scheduled for July 9, is still one of our best-attended annual events, and is supplemented by quarterly lunch-and-learn opportunities. Our **Regional Representatives** have been hosting social events that continue the dialogues that we start at the Annual Conference and make the material relevant to members year-round. We continue to revamp our membership tracking methods, and our website is still (in my humble opinion) the best state chapter website out there. Our **Scholarship Committee** continues to add workload by cast-

ing a wider net to prospective recipients, and we the members continue to find new scholarships for them to advertise and award. Most of all, our **Conference Committee** Chair and assistance continue to enlist an elite strike team of fabulous CASFM members to assure that Vail 2014 will be a huge success.

I close where I started; with a pause. Think on all we have accomplished, and look at all we have yet to achieve. If the past is any indication of CASFM’s future, then I sincerely believe we are reducing the loss of human life and property across Colorado and neighboring states. We are established ambassadors of wise and beneficial stormwater and floodplain management to a nation in need. Now let us act the part to make a lasting difference.

I believe we at CASFM will continue to grow in both influence and relevance in the next few years as we reach out and create new relationships outside our professional norms. As Michael Brown reminded us in 2012, “**relationships are the most important things in your jobs and in your lives**

and you need to maintain them. In your personal and professional lives you will face a crisis and your relationships will get you through them.” 2013 and 2014 gave CASFM members and their clients and customers a crisis, and we managed it with grace and swift action. Be encouraged that we are on the right course to meet our purpose and achieve our goals in the long term. Pause, reflect, then continue forward with the zeal and passion and knowledge you have gained from recent experience to help make a Colorado that is better than the one we knew a year ago.

Thanks as always to Vice Chair **Shea Thomas** and graphic artist Emmett Jordan of Jordan Designs for preparing this Newsletter, and to everyone that contributes to its content. I look forward to seeing each of you in Vail in September so that we can continue our growth and expand our body of knowledge.

Brian Varrella

CASFM Chair

Congratulations!



Will Birchfield

On June 5, 2014, CASFM member Will Birchfield of Estes Park, Colorado, was honored as the Larry R. Johnston Local Floodplain Manager of the Year. He received this award from the Association of Stormwater and Floodplain Managers (ASFPM) at the Seattle Conference Thursday Award Luncheon with his wife and grandson in attendance.

Will's contributions to the September 2013 flood response and recovery in Estes Park are exemplary. His efforts unquestionably saved lives, prevented future flood losses, and promoted the health, safety and welfare of an entire community.

He utilized bold flood recovery methods, encouraged the Town Council to adopt interim public safety measures, and supported the recently-implemented Statewide Floodplain Regulations adopted in 2010 by the Colorado Water Conservation Board (CWCB).

Will responded to the 2013 Colorado Flooding in Estes Park with grace, efficiency, and a passion for public safety and welfare. He mobilized national building experts from across the nation into 6 crews to survey thousands of damaged and undamaged properties over a course of a few days. He contacted CASFM members and led a volunteer group through the flood areas to obtain high water marks (HWMs). He then packaged all materials to apply



Will receives the Larry R. Johnston Local Floodplain Manager of the Year award.

to the Federal Emergency Management Agency (FEMA) and the CWCB for recovery assistance, adopted advisory floodplain boundaries based on the new HWMs, set a moratorium on all building permits in the flood-affected areas, applied new Statewide rules and floodplain regulations, and vetted all activities through a public process approved by ordinance through his Town Council.

In Estes Park's time of severe devastation and isolation, Will Birchfield was instrumental in keeping his community and its leaders calm, focused, and progressive in floodplain management tactics and techniques. Will has proven himself a national leader in wise and beneficial floodplain management, and CASFM is proud to have him as a colleague. Congratulations, Will, on becoming the ASFPM Local Floodplain Manager of the Year!

2013 CASFM Project Award Winner Lefthand Creek Flood Control Project Gets Immediate Test—2013 Flood Assessment and Recovery

by Joe Juergensen and Andy Stewart, Muller Engineering Company
David Hollingsworth, City of Longmont

In 2012, the City of Longmont constructed flood control improvements along a one mile reach of Lefthand Creek between Main Street (State Highway 287) and Pike Road to alleviate significant flood risks that existed in this area. Lefthand Creek is one of two creeks that begin at the continental divide and pass through Longmont (the other being the St. Vrain). The project involved upsizing road crossings, increasing channel capacity along Lefthand Creek; roadway realignments; reconfiguring several storm sewer systems; relocating utilities; recreational trail improvements, and an extensive revegetation plan. The main project benefits included flood relief for 172 of the 197 structures that were originally within the floodplain and eliminating overtopping of State Highway 287 (a major north/south transportation corridor within the City) during a 100-year event. The total cost of the improvements was approximately \$7 million and the City applied for and received a \$3 million FEMA Grant to supplement the project funding. Construction was completed in December of 2012 by DeFalco Construction and Naranjo Civil Constructors, a mere nine months prior to the September 2013 floods.

This project was originally presented at last year's CASFM conference, while flooding was taking place. Lefthand Creek was one of the harder hit corridors during the September floods, so there was some concern as to whether the improvements were

ready for such an early test. Video clips were sent to the project team in Steamboat one hour before the presentation showing floodwaters rushing through and over the new crossings and then being conveyed along the channel at water levels that were approaching the newly constructed capacity. This footage was played during the presentation, leaving everyone hopeful that the project would provide the intended level of flood protection and public safety.

Flood flows continued to increase to a point where they spilled out of the channel banks at predetermined locations within the project reach and at several other locations along the over two miles of Lefthand Creek within City limits that reside outside of the project reach. Emergency response during the storm included setting up road closures at bridges and culvert crossings and initiating evacuation alerts to residents that were being threatened by the flood waters. As the floodwaters slowly subsided, the City began to take inventory of the creek and resulting damage. Sobering sights of residents emptying their houses of flood damaged items from the structures that remained in the floodplain were contrasted with signs posted on newly improved flood control structures thanking the City for saving their property from damage.

Post storm recovery efforts were immediately initiated. These efforts included responding to residents' needs, securing unsafe areas, measuring highwa-



Lefthand Creek—Downstream of S. Pratt Pkwy.



Lefthand Creek—Downstream of S. Pratt Pkwy.

ter levels, documenting flood damage, inspecting bridges for reopening, jetting clogged storm sewers, cleaning mud off roads, and flood debris collection and disposal from homes and surrounding areas. Highwater marks observed at road crossings, along banklines, and within the front yards of several residential lots were determined to be strikingly similar to the newly delineated 100-year floodplain that was generated as part of the LOMR process for the flood control project. From this, two conclusions were made: first, the flood produced flows on the order of a 100-year storm event, which for this reach is approximately 5,000 cfs and second, the project improvements provided the intended flood capacity and performed as designed.

Although the project provided the intended flood capacity, the storm took its toll on newly planted banks and reaches of channel outside of the project limits. The site reconnaissance completed as part of the post storm recovery effort identified all areas of erosion and sedimentation and damage to existing infrastructure. Within the recent flood control project's reach (one mile long), there were several areas of sediment deposition ranging from 0.5 to 2 vertical feet in the channel bottom, isolated areas of minor bank erosion, one 25' long section of trail that washed out, and the loss of several newly planted trees and shrubs. Outside of the recent flood control project's reach (two miles long), there were several areas of bank erosion ranging from 20' in length and 3' in height to 400' in length and 12' in height, a few areas of sediment deposition (mainly downstream of roadway crossings), and damage to three sections of trail, an irrigation structure, a neighborhood pool, a pump station, and 5 storm sewer outfalls. Of the 7 road crossings and 5 pedestrian bridges that exist along the entire 3-mile reach, 8 were overtopped with only one road crossing experiencing minor road damage and one pedestrian bridge experiencing an abutment failure.



Reach



Severe Erosion outside of the Project Improvement Reach

The damage discussed above prompted the implementation of two permanent repair construction packages for the entire 3-mile reach within the City: 1) a channel erosion/ sedimentation/ landscape/ irrigation repair package totaling \$4 million and 2) a trail repair package totaling \$200,000. The design for these packages was initiated in October and completed in March. Construction of the trail repair package was completed in February and construction of the channel repair package is ongoing and is scheduled to be finished by this fall. All totaled, the repair plans included 7,100 LF of bank repair using 4 different treatments, 15,400 CY of sediment/rock removal, 650 LF of trail repair, 5,000 CY of vegetation/trash removal, replacement of the damaged pedestrian bridge abutment, repair of minor damage to Pike Road, repair of 5 storm sewer outfalls, 47 acres of reseeding, replacement of 361 trees and shrubs, and repair of adjacent sprinkler systems. Both packages were coordinated with FEMA and both made use of FEMA's reimbursement funding.

Beyond the recovery effort, post storm hydraulic modeling was completed to calibrate against the previously discussed storm flows and to equip the City with information to refine future floodplain needs. Another phase of flood control improvements totaling \$4 million has already been placed on the City's future projects list to remove the remaining 25 houses from the floodplain. Also, an Operation and Maintenance Manual is in the process of being developed to manage the flood corridor and maintain its intended capacity, function, and purpose.

The importance of floodplain management was lived out through this project. The City's proactive floodplain management efforts provided great benefit to residents that live in the vicinity of improvements that were already constructed and accurate information to those that remain within the floodplain. Although much work has been done, the impact of the



Post Flood Repair Project Underway outside of Project Improvement Reach

storm painted a clear picture that there is more to do, leaving the City motivated to continue making a positive difference towards the safety and welfare of its residents and surrounding infrastructure.

Contact Information:
Muller Engineering Company
777 S. Wadsworth Blvd., Ste 4-100;
Lakewood, Colorado 80226
303-988-4939
jjuergensen@mullereng.com



Volunteer Opportunity

The Colorado Water Conservation Board has developed a grant program for watershed/stream restoration and flood mitigation projects throughout the state. As a result of the flood events of 2013, several watershed coalitions have formed along the Front Range with the goal of developing restoration master plans for the most affected streams, most of them receiving financial support from CWCB. The coalitions are all in different phases of planning, but all can still use help with recovery efforts and restoration projects.

If you are interested in providing assistance to any of the coalitions, contact the lead listed below:

Upper Fountain Creek and Cheyenne Creek Flood Restoration Master Plan

Larry Small
lsmall42@comcast.net

Fall River Restoration Master Plan

Alison Chilcott
achilcott@estes.org

Big Thompson River Restoration Master Plan

John Giordanengo
john@wlr.org

Boulder County Comprehensive Stream Planning Initiative

Julie McKay
jmckay@bouldercounty.org

Fish Creek Restoration Master Plan

Alison Chilcott
achilcott@estes.org

Coal Creek Canyon Watershed Master Plan

Chris Garre
chrisgarre@gmail.com

Little Thompson River Corridor Master Plan

Gordon Gilstrap
gordon@bigthompson.org

South Platte River Corridor Master Plan: Big Thompson River to Poudre River

Sheryl Trent
strent@evanscolorado.gov

Boulder Creek Mitigation Plan

Shea Thomas
stthomas@udfcd.org



Floodplain Committee

by Jamie Prochno

The Floodplain Committee has been very active this spring, helping to bring FEMA's E273 Managing Development through the NFIP course to the state twice. We also offered the CFM Exam twice and had great participation. Additionally, the Floodplain Committee met in May to discuss floodplain policy issues. The main discussion topic was the applicability of erosion hazard zones to Colorado. Participants in the meeting included a diverse cross-section of the membership. The Committee will continue to discuss this topic and work towards preparing policy and outreach materials.

Stormwater Quality Committee

by Holly Piza

The Stormwater Quality Committee is preparing for the 6th Annual Stormwater Quality Field Trip. The theme is "Tight Spaces". The trip includes a variety of example projects including permeable pavement, sand filters, bioretention, rainwater harvesting, and cloud-based infrastructure solutions. We'll visit facilities that have successfully minimized their BMP footprint and facilities that provide multiple uses within that footprint and talk to the engineers, landscape architects and developers about their experience and perspective.

CASFM research funds are helping fund a study to evaluate a variety of bioretention media. The study explores the quantity of organic content in bioretention media necessary to provide adequate nutrients for vegetation to establish and thrive while minimizing export of nutrients in the effluent. Findings will be presented at the annual conference this year.

Scholarship Committee

by Morgan Lynch

As parents begin getting their children ready for another exciting school year, the CASFM Scholarship Committee will be busy putting out a request for scholarship applications. CASFM will sponsor two scholarships for the 2015 Spring and Fall school semesters, the CASFM- Ben Urbonas Scholarship and the CASFM Family Scholarship.

The CASFM—Ben Urbonas Scholarship is available to graduate level students in the engineering field. For a students interested in the CASFM Family Scholarship they must be a full-time student (Sophomore Level or above), enrolled in an eligible program, and have a parent or legal guardian that is a current member of CASFM. More detailed information regarding each scholarship is available on the CASFM webpage. If you know someone who is eligible please encourage them to apply this fall.

In the interim, please remember that CASFM is officially recognized as a 501(c) (3) with the IRS and all donations to the CASFM Family Scholarship Fund are tax deductible. If you have any interest in donating to the CASFM Family Scholarship please contact Brian Murphy, our current Treasurer. To volunteer with the Scholarship Committee, or to receive information on scholarships offered by CASFM, please contact me at morgan.lynch@ch2m.com.

Training and Outreach Committee

by Craig Jacobson

The Outreach and Training Committee continues to help coordinate many different aspect of the CASFM organization. With many facets, our focus lately has been to recruit other CASFM members to assist with the many tasks ahead of us. We held our first committee meeting on May 12th and were pleased to have other CASFM members join us to discuss the exciting events in the works. Our thanks go out to all of these individuals.

Focal areas in the coming months will be on continuing the growth and development of social media outlets; updates for the outreach section of the website; continued support for CASFM training opportunities; and defining the role of a student chapter. In addition, our outreach committee members are helping to serve as liaisons with other groups such as ASFPM currently planning events within our communities. We are excited for these new opportunities.

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Membership Committee

By Kevin Gingery

We are up to 768 members and life is good!

COMING SOON!

CASFM is experimenting with a new membership management system called Wild Apricot. In the coming months, you will be receiving an email to join the system. It's a very simple, painless process to join and doing so allows us to better manage member information and eventually ease the registration and payment process for membership, conferences and other events.



Elsner

Metro Region

By Danny Elsner, PE, CFM, CPSWQ

We have had 2 great presentations in 2014. Both have focused on the flood from September 2013 in some way. If you missed them, then you are just working too hard.

flood behavior and recovery to pre-flood conditions. Having attended many of the socials for the past years, I believe this was one of our best discussions after a presentation on what we should do as engineers going forward. (I am hoping somebody picks this up more during the CASFM conference).

May 20, 2014

Joel McGuire led a discussion on AMEC's help with Jamestown after the September flood. Located in Boulder County, Colorado, the small mountain community of Jamestown was "ground zero" for the Colorado flood disaster in September of 2013. Described by the State Climatologist at the recent Flood Forum as an event of "Biblical Proportions", the tributaries to James Creek received over 12 inches of rainfall on September 12th, unleashing a torrent of runoff and debris which swept away 20% of the homes and 50% of the roads, including two bridges and much of the water supply infrastructure. While many communities along the Front Range were severely impacted by the disaster, Jamestown was unique in the scope of the impact. For months afterward, the bulk of the tight knit community was dispersed to temporary housing arrangements leaving only a few hardy individuals who were determined to rebuild their Town. AMEC

has been involved since December of 2013, working closely with the Town's residents to first assess the impacts, propose solutions, and carry out the task of helping the community recover. As part of this presentation, AMEC will discuss the process of working with the CWCB to develop a Provisional Flood Hazard Determination so that residents could begin pulling building permits right away, securing Emergency Watershed Protection (EWP) funding from the NRCS to design and construct a mile and half channel stabilization project before spring runoff, and reconstruction of the Town's infrastructure through Boulder County and FEMA, scheduled to begin this summer.

Upcoming Socials

I am currently working on an August 13th presentation regarding more info on the September 2013 flood. If you have anything you would like to present, please feel free to contact me at eelsner@brwncald.com. Socials are a great way to improve your presentation skills, drink beer, talk about topics you are interested in, drink beer, get input from your colleagues, drink beer, learn about what else is going on in your world, and of course free appetizers. We are ALWAYS looking for topics so please don't be shy.

February 11, 2014

Dave Skuodas discussed the response to the flooding in Boulder County through a series of projects affected. Dave is a Senior Project Engineer at the Urban Drainage and Flood Control District (the District). Dave works in the Design, Construction, and Maintenance Program, and he is responsible for all projects in Adams and Boulder Counties. The District assisted with numerous flood recovery efforts in the wake of the September flood, and Dave shared some his more interesting flood recovery stories. Some of these stories include streams re-directing themselves in unpredictable ways, break away bridges that really broke away, and a \$15,000,000 capital project that must be completely re-thought after the actual flood behaved much different than predicted. Afterwards, there was a great discussion on our role as floodplain managers after a flood. This included the conflict between learning from



Northeast Region

By Beck Anderson

The CASFM Northeast Region held a technical presentation and social event on April 10th in Fort Collins. The presentation was hosted by Ayres Associates, and was followed up by drinks, good food, and great conversation at the Colindale Golf Course CB & Potts Restaurant.

Attending CASFM members were treated to an excellent presentation by staff from City of Fort Collins and Ayres Associates on the Lewstone Creek Stabilization Project completed in late 2013. Located in Larimer County, Colorado, the Lewstone Creek watershed was significantly impacted by the 2012 High Park Fire. Flash flooding and debris flows caused by post-fire runoff during the spring and summer of 2013 resulted in severe erosion at the site of two raw water transmission lines crossing the creek near the confluence with the Poudre River. These pipelines deliver nearly half of the City of Fort Collins drinking water supply from the Poudre River to the Laporte Water Treatment Plant and are considered a part of the City's critical infrastructure.

As part of the Lewstone Creek presentation, Bri-

an Varrella with the City of Fort Collins discussed the process of securing Emergency Watershed Protection (EWP) funding from the NRCS, and obtaining necessary permits to complete this emergency pipeline and channel stabilization project. Following up Brian, Will DeRosset with Ayres Associates provided a detailed overview of their innovative design solution which involved constructing a Partially Grouted Riprap (PGR) sloping drop structure and various other key design components in order to stabilize the channel and protect the pipeline crossing. Will also presented an in depth discussion on the construction phase of the project, and some of the challenges that were encountered and overcome to make this project a success.

Another Northeast Region presentation and social is currently being planned for late summer. I will provide more information on the topic, location, and date as this information is finalized. As always, if you have a topic you feel would be interesting to present at a future social event, please contact me at banderson@fcgov.com.



Kyle D. Riley

Where the heck is the warmth and sun!?!?!?

All kidding aside, the late winter and early spring has been quite busy already and it doesn't look to get any better moving into the summer. With the passage of Grimm-Waters and the ASFPM national conference only a month and a half away the Board and the Executive Office has been scrambling. Rest assured that the conference will be great as it always is. Similarly, with most legislation, you can rest assured that Grimm-Waters includes great things and it also includes bad things. For more information on either of these items please visit

ASFPM's website. Additionally, if you will be attending the conference in Seattle please let me know and I would love to meet up with you.

Since my last message I have focused my efforts to work hard on two issues. The first issue is whether or not the Chapter Districts should be reshuffled based on current Chapter numbers. The current Districts encompass two FEMA Regions with District 4 including Region 7 and Region 8. This issue has been brought up because some Chapter Directors currently represent up to 13

Chapters and some represent as little as 3. Me personally, as the District 4 Chapter Director, I represent 7 Chapters. My Chapters are in Iowa, Nebraska, Kansas, Missouri, Colorado, Montana, and Utah. I have other states within District 4, but they do not currently have Chapters.

If the Districts are reshuffled they would not follow FEMA Regions and it is possible that individual members and Chapters may be initially confused about which district they fall within. This may continue beyond the initial implementation due to the Chapter Districts not having as much notoriety as the FEMA Regions. Additionally, as more chapters form, or in the unfortunate event a chapter disassociates with ASFPM, future plans may involve reshuffling the Districts to keep the number of Chapters in each District close to equal. This may cause uncertainty and negative feedback. Finally, the current proposals would keep all currently elected Chapter Directors in a separate District for ease of transition. Members and/or Chapters may look at these proposals as a little bit of gerrymandering rather than truly grouping States/

Chapters in their appropriate district to have parallel concerns. My stance is we, as Chapter Directors, are like Senators. We ran for the Board knowing that the job was either going to be with more constituents or less, but it is still the same job. For example, a Senator from California still has the same job as a Senator from Montana, but they have a lot more constituents. I feel this is no different. Also, if a later Board has to reshuffle the Districts again, they are going to have the same problem with gerrymandering depending on where the current Chapter Directors reside at the time. If you would like to provide your opinion on this issue please contact me.

The second issue that I am working on is to better define the Chapter's role with the CFM exam process. Some of the Chapters within my District have shown interest in making the CFM exam proctoring exclusive to the State Chapter, if applicable. For bigger Chapters this might not be an issue. However, for smaller Chapters this would be a great opportunity to get face time with local floodplain professionals and a chance to grow their membership. If an individual CFM or another entity proctors an exam, the State Chapter would only know if they were systematically checking the ASFPM website. This issue has just recently been tackled and initial conversations with the Board has been hit with mixed reviews. A Board decision or resolution item has been tabled until the Certification Board Of Regents (CBOR) discusses this item in their upcoming meeting. The CBOR Chair, Tom Morey, has agreed to add the issue to their upcoming agenda and contact me if he needs any more information or needs me to speak during their meeting. I will be sure to follow up with him after their meeting on May 13.

I hope this message has met you in good spirits and excited about the upcoming summer activities.

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For a complete list of CASFM events, please visit the calendar on our website at <http://www.casfm.org>.

Other upcoming events that may be of interest to CASFM members include the following:

July 9

Annual CASFM Stormwater Quality Field Trip
(Denver area)

Register at <https://www.signup4.net/public/ap.aspx?EID=CASF28E&OID=50>

July 11

General Membership Meeting (Vail, CO)
11:00 a.m. at the Vail Cascade Resort

July 16

CASFM Lunch and Learn – Presentation Skills
(UDFCD)

Register at <https://www.signup4.net/Public/ap.aspx?EID=casf25e>

July 24-25

UWRI Class – Introduction to US EPA SWMM 5.0
(UDFCD)

Register at <https://www.regonline.com/builder/site/Default.aspx?EventID=1380016>

August 28-29

UWRI Class – Dam Safety and Hydrology (UDFCD)

Register at <https://www.regonline.com/builder/site/Default.aspx?EventID=1380007>

September 25-26

UWRI Class – Stormwater BMP and LID Selection,
Design and Economics (UDFCD)

Register at <https://www.regonline.com/builder/site/Default.aspx?EventID=1380013>

September 30 – October 3

CASFM Annual Conference (Vail, CO)
Information at <http://www.casfm.org>

October 15

CASFM Lunch and Learn – HEC RAS at Bridges
(UDFCD)

Register at <https://www.signup4.net/public/ap.aspx?EID=CASF30E&OID=50>

October 23-24

UWRI Class – Roadway Drainage Design Using EPA
SWMM w/ & w/o LID (UDFCD)

Register at <https://www.regonline.com/builder/site/Default.aspx?EventID=1415437>

November 13

General Membership Meeting (Lakewood, CO)
9:00 a.m. at Michael Baker, Jr.

December 4-5

UWRI Class – Floodplain and Floodway Hydraulics
Using HEC-RAS/GeoRAS (UDFCD)

Register at <https://www.regonline.com/builder/site/Default.aspx?EventID=1380017>



THE COLORADO ASSOCIATION OF STORMWATER AND FLOODPLAIN MANAGERS

The Open Channel

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