

# The Open Channel

Summer 2013 Vol. 24 / Issue 2



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## 2013 Annual Conference

September 10-13  
Steamboat Springs



David Bennetts

### A Word From the Chair

*Greetings CASFM Members,*

As we head into the warmth and fun of summer, I wanted to take a few moments to update you on a couple of items. Following up on last year's conference, CASFM members generously donated \$3,400 to a Wildfire Relief Fund for local governments impacted by Colorado's 2012 disastrous wildfire season. The gathering of these funds was a collaborative effort between ICON Engineering, CASFM's 2012 Platinum Sponsor, and CASFM members. The money was used to help meet the local match required for the Colorado Post-

Wildfire Flooding Early Warning Grants. These grants are intended to support local early warning systems in areas impacted by the Waldo Canyon and High Park wildfires.

Three communities were selected to be the recipients of these CASFM funds; Colorado Springs, Manitou Springs, and Larimer County. Each of these communities was awarded a check for \$1,000 and also received several CoCoRaHS rain gauges. CoCoRaHS is a network of volunteers who take daily measurements of rain, hail, and snow and report their observations on the website. For more information on the CoCoRaHS network, please visit their website [www.cocorahs.org](http://www.cocorahs.org).

Planning for ASFP's Arid Regions Conference continues and the outline of the conference is almost complete. There will be a number of good technical presentations and panel discussions centered towards the challenges and issues we face in Colorado and other parts of the arid west. The conference will be held in Scottsdale, Arizona from October 15 through October 18, 2013. The link to the conference brochure <http://goo.gl/BNGqL>.

CASFM's annual Stormwater Quality Field Trip was held on June 12. The trip visited a number of rain gardens and sand filter sites and was very informative. More details are available in the Holly Piza's Stormwater Quality Committee report.

After a four-year hiatus, CASFM's Stream Restoration Workshop is back and will be held on July 22 and 23 at the Shadowcliff Mountain Lodge in Grand Lake, Colorado. The course will be taught by Dr. Brian Bledsoe from CSU, a recognized leader in stream restoration. I would also encourage everyone to attend the 2013 CASFM Annual Conference, held again this year in Steamboat Springs. Information on all of these events can be found on the CASFM website at [www.CASFM.org](http://www.CASFM.org).

*Continued on page 2*

*Columbines emerge from ashes of the High Park Wildfire burn area in the Cache la Poudre River Canyon. © Lucas Mouttet*



CASFM has completed an effort to reorganize Committee structure to streamline and better serve the membership. The results of this effort are posted on the committee page of the website. In addition to some changes in the structure of the committees, we have had several changes in the Committee Chairs. Kallie Bauer has stepped down as the Chair of the Floodplain Committee due to a change in her job. Kallie has done a great job as the Chair for nearly a decade and I want to thank her for her efforts. Jamie Prochno worked closely with Kallie for several years and has agreed to step in as Chair of the Floodplain Committee.

Additionally, we have two other vacant chair positions. Ken Cecil has stepped down from the Outreach Com-

mittee and Chris Carlson from the Training Committee. Thanks to both gentlemen for their service to CASFM. An announcement was sent out in June to fill these two positions. If you are interested in either of these positions, please review the committee descriptions located on the committee page of the website and look for the announcement, and join the General Membership Meeting on July 12 in person or by phone.

Speaking of changing of positions, this will be my last year serving as Chair for CASFM. It has been my great pleasure to serve in this capacity and I have enjoyed it very much. I'd like to thank everyone for the support I've received during my time as Chair, it has been greatly appreciated. One of the

duties of the outgoing Chair is to run the elections for the coming year. I will be starting the process in August by seeking nominations for those interested in serving on the Board. Once the nomination process is complete, we will hold the election. I will be using a web service for voting to make it easy for CASFM members and the results of the election will be announced at the annual conference.

Finally, I would like to thank Brian Varrella, Emmett Jordan of Jordan Design, and everyone who contributed to this issue. I appreciate the time and dedication it takes to put this newsletter together. Thanks to all of you for your efforts.

*David Bennetts* CASFM Chair



*Manitou Springs personnel accept a wildfire support donation from CASFM. The donation was presented by CASFM members Penn Gildersleve of Icon Engineering (far left) and Iain Hyde of the Colorado Dept. of Emergency Management (far right), and from Chair David Bennetts of UDFCD (2nd from right).*



*Larimer County Commissioners Gaiter (left center) and Donnelly (far right) accept a wildfire support donation from CASFM. The donation was presented by CASFM members Mark Peterson of Larimer County (far left) and Vice Chair Brian Varrella of Fort Collins (right center).*



*Colorado Springs personnel accept a wildfire support donation from CASFM. The donation was presented by CASFM members Stuart Gardner of Colorado Springs (far left), Chair David Bennetts of UDFCD (center), Dan Bare of Colorado Springs (2nd from right), and Iain Hyde of Colorado Dept. of Emergency Management (far right). Also pictured is Sheri Landeck of Colorado Springs (2nd from left).*



# 2013 Annual Conference September 10-13, Steamboat Springs



*Krehbiel*

*By Robert Krehbiel, PE, CASFM Conference Committee Chair*

CASFM is ready to celebrate its **24<sup>th</sup> Annual Conference** in Steamboat Springs, Colorado, September 10-13, 2013.

Steamboat was a great destination in 2012, and we are excited to be hosting the Annual Conference once again at the Sheraton. Stuart Gardner, in addition to all of his work on the CASFM website ([www.CASFM.org](http://www.CASFM.org)), also has been doing a great job soliciting and negotiating contracts with hotel facilities to keep costs as low as possible. In fact, we have not had to raise conference rates for the last 5 years! As an extra bonus, Chairman Dave Bennetts has worked diligently to obtain a not-for-profit status for CASFM and now, thanks to his hard work, our organization should save an estimated \$5,000 per year on the

Conference. The CASFM Conference is the best deal going at just \$275 for a 3+ day event (early registration rate)! We appreciate Alan Turner's work, along with assistance from other staff from CH2M Hill, to manage and organize registration once again. The *Call for Registration* should be issued in July, so keep your eyes open to take advantage of the best rates.

The seasoned conference volunteers are working together to develop another successful program, and the format this year should be very similar to last year. Shea Thomas has taken on the bulk of the conference organization work and has done a masterful job finding and organizing the Keynote Speaker, the Featured Speaker and compiling all the abstracts. Attendees will appreciate all her hard work to make this a great and memorable conference. We are very pleased to announce that the CASFM 24<sup>th</sup> Annual Conference is nearly all put together now, and we look forward to another great forum full of new technical ideas and innovations providing you with renewed career inspiration. Thanks to all the members that submitted abstracts this year for the conference! We had more offers to present than we have time or space, so we actually had to turn some speakers away this year.

Last year's conference evaluation forms indicated that we had an exceptional conference in 2012, and we intend to repeat the level of performance again in 2013. We will start off on the afternoon of Tuesday (Sept. 10) with technical workshops and will continue with technical presentations and workshops through Friday (Sept. 13) at noon. A total of 36 technical presentations will be offered in 3 tracks for presentation over 2 days on Wednesday and Thursday afternoons. Thursday morning will include presentations by 3 award

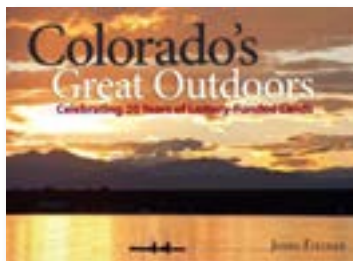
*Wenk & Associates will conduct a field trip on Friday of this water feature at the base of the ski hill at Gondola Square at Steamboat Springs Ski Resort.*



finalists competing for the coveted CASFM *Engineering Excellence Award*. We are planning for 2 workshops on Tuesday afternoon—one on water quality BMP's, and one on reform of the National Flood Insurance Program (NFIP). We hope that you find lots of good information and also have an opportunity to network with your colleagues.

We will kick off the Conference our Keynote Speaker, Robert Wendover, with the Center for Generational Studies. His presentation will focus on the generational differences in the workplace. Mr. Wendover has authored the Center's training curriculum *Generations: Understanding Age Diversity in Today's Workplace*. We think this will be a valuable and thought provoking presentation for everyone that works with a team, and a break from the typical engineering focus.

We also have a Featured Presentation by John Fielder, renowned Colorado Nature Photographer. Mr. Fielder published two books last year commemorating the 20<sup>th</sup> anniversary of Great Outdoors Colorado. He will give us a slide show presentation on the development of two books featuring Lottery-funded project areas and resources throughout the State of Colorado. The State Lottery was created in 1980 with the net proceeds allocated to municipalities and counties for park, recreation, and open space purposes. John's books are of significance to CASFM members since Great Outdoors Colorado (GOCO at



[www.GOCO.org](http://www.GOCO.org)) funded stream restoration projects and preservation of public open spaces through the Lottery system. GOCO's mission is to help preserve, protect, enhance, and manage the state's wildlife, park, river, trail, and open space heritage. Mr. Fielder was a founder of GOCO and his pictures depict the many places enhanced by this unique and active organization. Mr. Fielder agreed to come to the CASFM conference to present his photography and recount his impressions of GOCO's accomplishments.

We will also have a presentation for the entire Conference audience on the new Colorado Stormwater Center—a resource for Stormwater Education, Training and Research, which is being developed at Colorado State

University with cooperation and funding provided in-part by CASFM. This presentation will highlight the work completed to-date and discuss opportunities for others to get involved. You can preview their website at [stormwater-center.colostate.edu/](http://stormwater-center.colostate.edu/).

On Friday (Sept. 13), to close down the Conference, attendees will have several great field trip options thanks to Brian Murphy's organizational and managerial skills. A field trip is planned to view the stream enhancement work at the base of the ski hill on Mt. Werner and then move to stream restoration on the nearby Yampa River. Another Friday alternative will include a 3-hour technical workshop on Stream Restoration Techniques for arid environments. For those needing to get outdoors, the Conference will also include opportunities for either a bike trip or golfing. If that doesn't float your boat, surely our Vice Chair Brian Varrella can offer to point out nearby flyfishing opportunities in the Yampa River valley!

You will receive 12 continuing education credits (CECs) toward your Certified Floodplain Manager (CFM) credential for attending the conference. Please visit [www.CASFM.org](http://www.CASFM.org) for conference updates and conference registration. Remember to register early for the lowest rates. We are excited about this year's conference and hope that you can join us!



Lincoln Creek near Independence Pass, Colorado. © Brian Varrella

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McDermott

### Scholarship Committee Report

By Morgan McDermott, PE, CFM

To help students gear up for school this next academic year, a request for scholarship applications will be coming out this Fall. The CASFM Scholarship Committee will be busy awarding three scholarships for the 2014 Spring and Fall school semesters. In addition to the 2014 CASFM Urban Watersheds Research Institute (UWRI) Scholarship and the CASFM Ben Urbonas Scholarship, the committee will award the new CASFM Family Scholarship.

In order for a student to be eligible for the CASFM Family Scholarship they must:

- » Be enrolled as a full time student in an accredited under-graduate (Sophomore Level or above) or graduate program at a College or University in the State of Colorado, *and*;
- » Be eligible programs of study include, but are not limited to: Engineering, Earth Sciences, Landscape Architecture, City/Urban Planning, Environmental Sciences, Computer Science, Architecture, Mathematics, Emergency Management, or Education, *and*;
- » Have at least one parent or legal guardian be a current member of CASFM, and that parent/guardian must have actively participated in the organization for a period of time not less than 2 years.

Please look for the announcement of the scholarship application deadline in September 2013. The Scholarship Committee is counting on members to spread the word regarding the availability of these three scholarships, and we are always looking for help in the selection process. To volunteer with the Scholarship Committee, or to receive information on scholarships offered by CASFM, please contact me at [morgan.mcdermott@ch2m.com](mailto:morgan.mcdermott@ch2m.com).



Gardner

### Website Committee Report

By Stuart Gardner, PE

Do you use the CASFM Website very much? Does it work well? Does it ever look a little “strange” to you? Are you wondering where it is? I will give the last one away; it is [www.CASFM.org](http://www.CASFM.org).

If you are using the website as designed, it should look and behave very nicely. For example, the website is built to work best with Microsoft Internet Explorer. It was not intentional, that’s just the way it goes. If you’re using Firefox or Google Chrome, you can expect it to behave a little awkwardly. If things do not look right using Internet Explorer, try using the “Compatibility Mode”. You should be

able to find that under “Tools” and then just click “Compatibility View” on the drop down menu. Depending on your computer configuration it can make a big difference.

Be sure to check your personal contact information on the website. Use the *Find a CASFM Member* function on the home page and check out your information. If everything is correct, you are good to go. If not, send an e-mail to Membership Committee Chair Kevin Gingery. His information is on the *Results* page. Also, be sure to stay in touch with your company’s main contact when renewal time comes around. That is the best time to update your information and check which committees you might have an interest in.

We are looking for ways to improve the website all the time. One initiative under discussion right now is to explore ways the website can be used for outreach to the membership, and to the people, organizations and clients our members serve. Currently the website is almost exclusively formatted to serve CASFM members. This is truly an in-reach platform, as it serves those members who are very much a part of their respective larger communities. However, the website does not have much content that is useful for the general public or for clients, constituents, stakeholders or community decision-makers. If there is some way that the website can be used better in these efforts, please contact Vice Chair Brian Varrella and share your ideas.





Gingery

### Membership Committee Report

By Kevin Gingery, PE, CFM

CASFM Membership currently includes 689 active members, which exceeds our end-of-2012 total of 680! This is great news as our organization continues to grow. Members join us from a diverse field of professionals in the public and private sector.

Please remember that we are now using a digital Membership Form posted on the CASFM website ([www.casfm.org](http://www.casfm.org)). It can be found under the "Membership Form" tab on the left side of the home screen. It may be completed on-screen and e-mailed any-time during the year, or alternatively anyone may print a hard copy

and mail it in. Please send any questions, comments, suggestions, or contact information updates to me at [kevin.gingery@cityofloveland.org](mailto:kevin.gingery@cityofloveland.org).



Piza

### Stormwater Quality Committee Report

Holly Piza, PE

The annual CASFM Stormwater Quality Field Trip was held on June 12<sup>th</sup> and showcased a wide variety of rain gardens and sand filters. The seven stops included both urban and rural installations, some just a couple years old and some with a couple decades of service. The 55 attendees toured sand filters that were vegetated and a couple that were bare. The group discussed design and construction considerations as well as lessons learned with members of the design team. The tour consisted of the following sites:



### 21<sup>st</sup> and Iris St. Rain Gardens

The Urban Drainage Flood Control District (UDFCD) partnered with the City of Lakewood and the Urban Watershed Research Institute to construct 2 rain gardens at this location. The project, completed in April 2011, satisfied multiple objectives including providing stormwater quality treatment, field testing of UDFCD's new rain garden growing media, and fixing a nuisance drainage problem. The rain garden is located within the street right-of-way. UDFCD monitors water quality of the influent and effluent as well as runoff flow and volume. The rain gardens are fully vegetated with the seed mix recommended in the Urban Storm Drainage Criteria Manual (USDCM) Volume 3 and assorted plantings.

### Morse Park Rain Garden

The bus stopped briefly to look at the site of a proposed rain garden to be constructed in 2013 by the City of Lakewood to replace an existing concrete-lined pond. The rain garden will treat parking lot, street, and park runoff from a 15 acre watershed area. Unique aspects of this retrofit water quality project include forebays able to be cleaned using street sweepers, a planting mix containing sandy loam topsoil, and varied depth zones within the rain garden with plantings tailored to each zone.

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Summer green along the Yampa River below Stagecoach Reservoir, near Steamboat Springs, Colorado. © Brian Varrella



### **Belmar Park vegetated sand filters**

This 10 year old water quality basin was designed per USDCM sand filter criteria, however, a 6-inch top layer of sandy loam was added and the basin was seeded. It treats stormwater from a tributary that's in excess of 6 areas. The City reports that maintenance to date has consisted of debris removal.



*The vegetated sand filter at Belmar Park blends into the landscape leaving the outlet structure as the only recognizable feature of this BMP.*

### **Carson Nature Center (South Platte Park)**

The vegetated sand filter at the Carson Nature Center has been in operation for over 20 years. It treats runoff from a parking lot. The group also viewed a project on the South Platte at this location.

### **Douglas County Sheriffs' Substation**

This site includes a sand filter and two rain gardens constructed with different media. A combination of sand and peat was used as well as the current USDCM – Volume 3 media—a combination of compost having a high shredded paper content and sand.

### **Park Ave Housing Project**

This Denver Housing Authority (DHA) project included rain gardens in an urban setting.

### **Highland Bridge Lofts Rain Garden**

Another rain garden in an urban setting—with a deck bisecting the garden, this design is a great example of making the facility an amenity.



*Rain garden at the entrance to the Douglas County Sheriffs' Substation.*



*Rain Garden at the Park Ave. DHA site*



*Rain garden at Highland Bridge Lofts.*





*Prochno*

### Floodplain Committee Report

*By Jamie Prochno, PE, CFM*

The Colorado Water Conservation Board (CWCB) has been working to help communities update their floodplain regulations in order to adopt the State's higher standards that were enacted in January 2011. As many floodplain administrators are aware, communities have ap-

proximately six months left in the compliance period. The CWCB has been working with CASFM to offer training workshops covering the changes to floodplain management standards, as well as many other topics including flood insurance, permitting and enforcement, and floodplain studies and maps. During 2012, workshops were held in Grand Junction and Pueblo, with a total of 55 attendees. Communities interested in hosting a workshop or who would like to request assistance with updating floodplain management regulations should contact the CWCB staff.

The CWCB also developed a model ordinance to assist

communities in adopting floodplain management regulations consistent with the Rules. The State model ordinance is adapted from the FEMA model ordinance and incorporates the minimum standards contained in the Rules. The State model ordinance is a guidance document that meets the State and Federal requirements, but can be modified to meet local conditions and administrative procedures.

The model ordinance and more information about the State Rules can be found on the CWCB website at <http://cwcb.state.co.us/water-management/flood> or by contacting me at [Jamie.prochno@state.co.us](mailto:Jamie.prochno@state.co.us).





### Metro Region Report

By Danny Elsner, PE

The CASFM Metro Region has had two great speakers this year. If you missed them, then you missed out. Presentations had a disaster recovery theme; the first with wildfires and the second with hurricane levee overtopping. Don't miss out on the next one!

Here is a summary of 2013 Metro Region activities (so far):

*Elsner*

**February 5, 2013:** The Metro Region took it underground at the Irish Snug. After struggling a bit with logistics on how to project onto a cloth table cover, Chris Sturm, the Stream Restoration Coordinator of the Watershed and Flood Protection Section of the Colorado Water Conservation Board, got us back on track with a discussion on rehabilitation and restoration of 3 recent fires in Colorado (Hayman, Waldo Canyon and High Park). The presentation went well with the attendees thanks to Chris' great job showcasing CWCB efforts in the burn areas and the methods they are using. Thanks Chris!

**May 14, 2013:** The Metro Region took it uptown to Westminster on the north side at CB & Potts. Dr. Chris Thornton presented his levee wave overtopping research and levee

protection strategies and designs. Denver traffic kept the crowd size down, but those in attendance all gave Dr. Thornton a fantastic review. There were a few "eureka" moments for me as Dr. Thornton mixed in his field work at the Colorado State University Engineering Research Center with some lessons and theory that took me back to my years at school. Mix in discussions about how to create a machine to replicate hurricane waves in Colorado and you have a good mix for eye-opening moments. Thanks Chris! FYI, the same presentation prepared for a NE Region Social is posted on the CASFM YouTube site at <http://www.youtube.com/user/CASFMorg?feature=guide>.

**Upcoming Socials:** I am currently working on a late August presentation about geospatial information and how LiDAR data was collected through a public-private partnership with northern Colorado communities. More to come on this topic soon.

We always welcome new speakers! (This is no joke!) If you have a topic of interest to the group, we would appreciate a presentation at a Metro social. Contact me to arrange a social at [delsner@sehinc.com](mailto:delsner@sehinc.com).





Staley

### Northwest Region Report

By Andi Staley, CFM

The CASFM Northwest Region recently hosted a lunchtime social and tour of the progress on the Leach Creek Flood Control Dam construction. On May 31st members from the Northwest Region met for lunch and discussed a unique collaboration effort between the Colorado Army National Guard and the City of Grand Junction. After lunch we headed out to brave the wind and dust for a tour of the project site which is in the arid BLM desert north of the City. The project, which began last year and continues this year, includes construction of a 250 ac-ft detention pond, flood control dam with crest length of almost 1,500 feet and final embankment height of over 39 feet, including outlet and spillway. The Colorado Army National Guard is using the project as a four week training exercise with each assigned platoon spending two weeks on the project. The terrain is desirable to the National Guard because it closely mimics the conditions that might be faced overseas in Afghanistan or Iraq with hot, dry weather, minimal vegetative cover and blowing sand.

Bret Guillory from the City of Grand Junction talked about the extensive coordination required between multiple agencies prior to construction. He also discussed interesting findings on the site (including flying toads) and the unique challenges that come with working with the National Guard for construction. Thank you to Bret for a fascinating and informative tour.

A second northwest region social will be planned for the late summer or fall of 2013. We will either prepare a presentation and tour of the Dry Creek realignment which was part of the Garfield County Regional Airport improvements, or organize a tour of the recently realigned Hunter Wash west of Grand Junction which includes newly established wetlands. If you have a topic of interest to the group please feel free to contact me with your ideas at [andi.staley@mesacounty.us](mailto:andi.staley@mesacounty.us).



Curtis

### Southeast Region Report

By Keith Curtis, PE, CFM

A Southeast Region social is being planned for the summer of 2013. The location is still undetermined but Phantom Canyon and Bristol Brewing Company have been mentioned as possibilities. A presentation will precede the social. A potential presentation topic includes the Waldo Canyon flood water inundation study prepared by MATRIX Design Group. Images released to the public are available here: <http://www.springsgov.com/news.aspx?newsid=2767>.

We anxiously await the preliminary Digital Flood Insurance Rate Maps (DFIRMs) for El Paso County which are due out for review in September of 2013. Pikes Peak Regional Floodplain Administration has teamed with El Paso County and the City of Manitou Springs to execute two Letters of Map Revision (LOMRs) based on hydrology approved in 2010. It is estimated that these new LOMRs will provide relief to approximately 400 structures! Approvals are expected this quarter which is great news for the affected structures given the flood insurance requirements revised under Biggert Waters 2012.



# THE COLORADO ASSOCIATION OF STORMWATER AND FLOODPLAIN MANAGERS

## *The Open Channel*

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Urban Drainage & Flood  
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CH2M Hill

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Currently Vacant

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Brian Varrella, PE, CFM  
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I would like to thank those who contributed to this edition of Open Channel. Please send any newsletter comments and suggestions to [BVarrella@fcgov.com](mailto:BVarrella@fcgov.com).



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Sunset after a thunderstorm on the North Platte River near the Colorado-Wyoming border. © Brian Varrella

Newsletter design by R. Emmett Jordan Communications & Design.