I don’t know what happened to our 2012 here at CUSP, but I do know that it blew by at the speed of light.

I wrote my last Executive Director’s letter for the summer newsletter on June 8th, the anniversary of the Hayman Fire. Little did I know that a couple weeks later we would be seeing smoke in the air that would rival 2002. As the Waldo was nearing containment, staff of the Pike National Forest and Colorado Springs Utilities asked if we would be available to help with post-fire recovery efforts. Soon after, El Paso County, the City of Colorado Springs, and private landowners also asked for assistance. Here at CUSP we hate to say no, and our Board of Directors endorsed us helping to apply the lessons we have learned on Hayman to the Waldo Fire. You can read more about those lessons, and the Waldo, in the pages that follow, but of course, these aren’t the only things we have been involved in.

In 2007 we began planning for a Trees for Trout project at the Pike National Forest’s Happy Meadows area of the South Platte River, near Lake George. It grew in the ensuing years to include restoration work on a private property downstream, as well as throughout the Pike. We began construction on that project last year, and completed the approximately 4 mile river restoration project this summer. Not only did we do river restoration, but we also removed a dam that served the private property as a diversion structure and redeveloped their diversion so it would no longer act as a fish passage blockage, and no longer deposit volumes of sediment into the National Forest portion of the stream. This is a project I’m extremely proud of!

Our field crew are also red-carded wildland firefighters, and our team was called out on a number of fire starts this summer. As a resource, they can help stomp a fire before it blows up into a conflagration. This year we acquired our own fire truck with assistance from Mountain Communities Fire District (who donated a pumper), Florissant Fire District (who sold us the truck at a very, very deep discount), and Teller County Public Works Department (who put the two together).

Our Energy Program Coordinator, Brent Kennedy, spent a good bit of his time this year working with a variety of local government agencies (including the school districts) to get energy audits and participate in Energy Performance Contracting (EPC). Under an EPC, an electric utility or private business will install energy saving initiatives at their cost, but share the savings with the government entity. The process is currently moving forward with Teller County, Woodland Park, and the Cripple Creek/Victor School District.

Ever since the Hayman, CUSP has been actively involved in forest health and fuel mitigation projects. This year, we began operating a new slash site at Fairplay, and our slash site at Divide saw over twice the volume of material as we had last year. We also mitigated fuels on 125 acres in order to reduce the intensity of future fires.

It is always nice to get a nod of recognition for our work: This year we won the Friends of the South Platte Award from the South Platte Forum, and the U.S. Forest Service Chief’s Award for the various projects we undertake with the Pike.

Finally, I’d like to thank all our donors, supporters, volunteers, and friends who have helped make us an award-winning organization, and wish you all a great 2013! We can’t do what we do without your assistance, and I hope we can count on you to support us this year, and beyond.

Carol Ekarius

Every action in our lives touches on some chord that will vibrate in eternity - Edwin Hubbel Chapin
Colorado has a “water rights,” or private property approach to managing our limited water resources. In our state, the State Engineer’s Office is the delegated agency that oversees the administration and control of water, with oversight from the Colorado Water Courts. As the drought has continued to reduce available water supplies, people are learning, sometimes in painful ways, about our water rights system! So, for those who don’t bathe in the nuances of water law, here’s a brief primer.

Water is addressed in our State’s Constitution. It says, “The water of every natural stream, not heretofore appropriated, within the state of Colorado, is hereby declared to be the property of the public, and the same is dedicated to the use of the people of the state, subject to appropriation as hereinafter provided.”

Appropriation is a process, through the State’s Water Court, of claiming a water right by demonstrating that you have put water to beneficial use. Those with the oldest “decree,” or court documentation of their ownership of a water right, have the highest priority in having water delivered to their point of diversion. When a senior water rights holder isn’t getting enough water to their diversion, they contact the State Engineer’s Office, which puts “a call” on the river. A call requires water rights holders with junior water rights to shut off their diversion and let the water continue downstream for the use of the more senior water rights holders.

When no senior rights holders are having trouble getting water, and so no call is placed on the river (such as during spring runoff), the water lingo says there is a “free river.” That means someone who does not have a decreed water right could divert water from the river to put it to beneficial use, and thus begin the process of securing a new water right. In the South Platte and Arkansas drainages, this essentially means there is extremely limited opportunity to acquire a new water right, because these two rivers are highly over-appropriated, and free river is a fairly rare event.

Water rights apply not only to taking water out of the river, but also apply to things like saving rainwater in a rain barrel, or creating storage, such as a pond. In the last year, many people in our area with ponds were required to breach and drain them because they did not have a water right to store the water.

Groundwater is also managed under Colorado water laws. Prior to 1972, property owners could drill a well without a permit, and if you own a home or business with a pre-1972 well, you are said to have an exempt well. All wells after 1972 require a permit. For homes, the permits are for either a “household” well or a “domestic well.” If you have less than 35 acres, your well will be a household well, which means you can only use water inside the house; you may not water a lawn or garden, wash your car, irrigate trees or shrubs, or provide water to horses or other livestock when your well is classified as household. A domestic well owner may do these things, though the permit states how much area may be irrigated.

The drought has caused hardship, as more and more people depend on our limited water supplies. Last year, few ranchers with irrigation rights (many with water court decrees dating back to the late 1860s and 1870s) in our area were able to irrigate at all, or were only able to irrigate for a very short window of time in April, because the most senior water rights in the South Platte and Arkansas drainages are held by metropolitan municipalities and agricultural producers on the eastern plains, who began placing “calls” on the river by mid-April. Also, during the drought many well owners in the region have had their wells run dry because the water table has dropped below the level required for their pump to run.

Businesses may have either an exempt commercial well permit (which does require the business to install a meter and make records available upon request to the State), or a nonexempt well, which requires them to have an augmentation plan or augmentation water, and this needs to be approved by water court. Examples of businesses that need augmentation water include hotels and lodges, stables and kennels, or any business that requires outside use of water. Property owners who have household wells, but used them for watering horses or livestock, may also use augmentation water in order to allow them to continue watering their animals, and pond owners could use augmentation in order to not have to breach their ponds. Augmentation is essentially a way to provide senior water rights holders with the water they are calling for from an alternate source. Thanks to the Headwaters Authority of the South Platte (http://haspwater.com), a partnership between the Center of Colorado Water Conservancy District and the Upper South Platte Water Conservancy District, augmentation water is available to purchase at fairly reasonable rates within the Upper South Platte Watershed for those who need it.

The current drought situation is not expected to improve any time soon. Water usage and storage is a legal issue that is getting more attention than ever before throughout the State and in our watershed. If you have questions on water rights, visit http://water.state.co.us.

http://droughtmonitor.unl.edu

U.S. Drought Monitor
Colorado
January 29, 2013

The Drought Monitor focuses on defined-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

http://droughtmonitor.unl.edu

Whiskey is for drinking; water is for fighting over - Mark Twain
From June 23 through July 10, 2012, the Waldo Canyon Fire raged on the doorstep of Colorado Springs. Destroying nearly 350 homes within the city and claiming the lives of two people, the Waldo Canyon Fire is the most destructive wildfire in Colorado’s history. Local, state, and federal agencies came together in our communities’ effort to contain the fire, which ultimately consumed over 18,000 acres of land.

While the Waldo Canyon Fire may have been relatively small in size compared to other recent fires in the West, its proximity to homes, schools, and critical infrastructure within the Pikes Peak region make the Waldo Canyon burn scar incredibly dangerous to our community. Post-fire conditions within local watersheds significantly magnify the flood and debris flows of even small, common storm events.

We saw a glimpse of this following a relatively small rainstorm on July 30, 2012. Dropping under two inches of rain over an eleven-hour period, this was slightly less powerful than a typical two-year storm event. Nonetheless, due to post-fire conditions this storm generated flood flows between five to eight times greater than they would have before the fire.

Of significance to Colorado Springs Utilities was the damage these amplified storm flows caused to parts of our Northfield Water System. Moving water stored in Rampart Reservoir down to treatment plants on the north end of Colorado Springs, the Northfield Water System can serve up to 80% of our community’s potable water supply during times of high demands. While Utilities’ primary Northfield infrastructure was not damaged, a critical secondary component, the Pine Valley Pipeline, was exposed and undermined by storm and debris flows, causing damage estimated to be near $6 million. Of course, to make these repairs Utilities must take steps to protect its infrastructure from future flood flows.

Colorado Springs Utilities was not the only regional entity to sustain extraordinary damage from this relatively common rain event. Both Colorado Springs and El Paso County drainage systems were pushed to their limits and the Colorado Department of Transportation struggled to keep Highway 24 open and clear of debris flows. Communities throughout much of Ute Pass experienced flooding, and a flow of debris threatened a local elementary school, showing the need for significant work to protect it during future storms.

Knowing these types of impacts from a common two-year rainfall will likely recur, stakeholders from throughout the region have been working with support from the Coalition for the Upper South Platte to take steps to mitigate post-fire conditions. As much of the burn area is located on land managed by the United States Forest Service, CUSP is playing an invaluable role by assisting local entities and the Forest Service in developing a comprehensive plan to assess and stabilize the numerous watersheds impacted by the Waldo Canyon Fire.

With its experience and resources developed over several years of restoring the Hayman burn area, CUSP is providing critical support for our community. Even if this role is temporary while we form our own coalition within the Fountain Creek Watershed, we don’t have several years to address the post-fire threats that remain on our doorstep.
TRAIL CREEK WORK NEARS COMPLETION

By Jonathan Bruno

After years of planning, the heavy equipment has been moving the natural, locally sourced materials, and Mile High Youth Corps and National Civilian Community Corps crews and hundreds of volunteers have completed the majority of restoration work along Trail Creek and its tributaries. The work, formally started in 2010, has been instrumental in the re-creation of a once healthy, functioning stream within the watershed.

I always marvel at CUSP’s accomplishments, but I, like many others, struggle to understand how we achieved these amazing feats. In order to understand one’s personal history, one’s lineage, it becomes necessary to look back, rather than to just review the here and now. In order to understand the Trail Creek Restoration Project, join me as I take a look backwards and ultimately circle around to today. It is my assertion that without a detailed understanding of our history we’ll never be able to see the world before us, nor look forward to tomorrow. The story of Trail Creek begins on June 8, 2002, when the Hayman Fire started outside of Lake George, CO. On June 9th, “the combination of fuels, weather, and topography positioned the fire for a major run lasting the entire day and burning 60,000 acres along the South Platte River corridor for 16 to 19 miles. Evacuations were performed in front of the fire, but no suppression actions were possible. The fire burned with extreme intensity with long crown fire runs and long-range spotting (1 mile or more)” (Graham, Hayman Case Study, 2003). By June 28, the fire had consumed some 138,000 acres of land within the Upper South Platte Watershed.

Not long after the fire was contained, CUSP took the helm of the Hayman Recovery and Assistance Center, setting the stage for restoration work of fire disturbed lands within the watershed and surrounding areas. During the assessment phase of the rehabilitation, CUSP Executive Director (and one of only two paid staff), Carol Ekarius, traveled out to an overlook to view the damage. Carol and Peter Gallagher, a then U.S. Forest Service (USFS) representative, discussed what could be done with the estimated 82 million dead trees. It was this fateful moment of our history that changed everything. According to Ellen Wohl, author of Virtual Rivers: Lessons from the Mountain Rivers of the Colorado Front Range, “...a five-year study of small mountain channels demonstrated that logs falling (naturally) into the channel from the riparian corridor served to dissipate the energy of the flowing water by increasing the boundary roughness, thus decreasing bedload sediment movement and maintaining channel stability” (Wohl, p. 31). Over many years the landscape has been altered to meet the needs of societal development. Often this development meant “The removal of protective... vegetation during timber harvest...” (Wohl, p. 18). As railroads, towns, ranches and roads were developed, those trees that lined and felled into our mountain streams were cut and used to fuel our growth. With the Hayman came a very large source of trees that could be reintroduced into the degraded stream corridors of our watershed.

Over the next eight years, CUSP worked with partners on a project called Trees for Trout, or as we jokingly refer to it, Silviculturists for Suckers. The Trees for Trout Project included work on private and public lands along Tarryall Creek, the main stem and middle fork of the South Platte, as well as Michigan Creek. All in all, we have restored river systems, using a Natural Channel Design method, on over 15 miles of stream and river. Trees for Trout, our experiences and our lessons, acted as the precursor to the work we are undertaking within Trail Creek.

Trail Creek, a subdrainage of West Creek and Horse Creek (near Deckers), had been contributing large quantities of sediment, metals and organics into our drinking water system, and causing floods that have taken out Highway 67 between Woodland Park and Deckers (photo above). The Trail Creek Watershed involves nearly 16 miles of drainage, is located in the granitic geology associated with Pikes Peak, and has some of the most erosive soils in the country. Over 8,000 acres of the 10,669 acre Trail Creek Watershed burned. When I first stepped foot into the area shortly after the fire, I recall the devastation; river and road had, to my dismay, become one. Tons of debris and sediment were deposited in great heaps and mounds.
Some of the first volunteer projects, aimed at reducing hillslope erosion, were accessed from one ridge side or the other because traveling Trail Creek Road was impossible. Flash floods ravaged the area, washing away not only the road, but also homes. We all knew something needed to be done for life safety and for our water.

Early in the process, CUSP worked closely with the USFS on the slopes above the drainage. We installed check dams and felled trees to create terraces. We raked and seeded hundreds of acres and planted trees. The USFS removed the dangerous trees from the road and trail corridors and planted thousands of trees, all while the river waited.

In 2010, after explaining the story and with some very creative begging, CUSP contracted world-renowned river restoration expert Dr. David L. Rosgen of Wildland Hydrology to undertake a Natural Channel Design method of restoration within Trail Creek. Undertaking a very extensive assessment process known as the Watershed Assessment of River Stability and Sediment Supply (WARSSS), a tool developed by Rosgen, he, the USFS, and CUSP were able to quantify the sources and causes of increased sedimentation and stream degradation. We found approximately 82% of total sediment yield (18,118 tons/yr) was from streambank erosion and due primarily to increased flood peaks (flow-related sediment increase), channel instability, channel encroachment due to roads, and riparian vegetation loss. In addition, roads, trails and small tributaries contributed 3,390 tons/yr.

With this information we defined our objectives for the project to be:

1. Reduce sediment supply
2. Develop restoration scenarios that address the causes of impairment
3. Improve fish habitat
4. Stabilize stream banks
5. Create cost effective and low cost restoration solutions
6. Use a natural channel design
7. Provide a demonstration site for others
8. Provide for research and monitoring
9. Be holistic in the approach

In 2011, nine years after Hayman, CUSP broke ground at one of the most impacted sub-watersheds (pre-project photo at left, post-project below). This summer, we did more drainage work and redeveloped the stream, including changing the elevation of an existing box culvert that was increasing upstream deposition of sedimentation in order to allow the river to effectively maintain itself without inundating the upstream portion with more and more sediment. Contractors reshaped the channel for almost three miles. We still have some work to complete in 2013, but overall accomplishments are quite amazing. During flood-worthy events this summer, there was no flood, and the sediment stayed where it belonged.

Most exciting for us, we are moving downstream with analysis and planning for work in West Creek and Horse Creek, and also applying the lessons we’ve learned on the Waldo Fire in real time, rather than waiting for ten years! (Oh, yeah, and we have fish in a part of the stream that has been fishless for years.)

None of this work would have been possible if we had never stopped to ask the question; “What do we do with all of these dead trees?” With help from our friends at the Pike National Forest, and the National Forest Foundation, Vail Resorts, Coca-Cola, the Colorado Department of Public Health & the Environment, Douglas County, Rocky Mountain Field Institute, Mile High Youth Corps, Aurora Water, Colorado Water Conservation Board, Westcreek residents (particularly our old Board Chairman, Denny Gibson), and the volunteers and other donors, we continue to create a new history that will define and sculpt the future of our watershed.
The 2012 volunteer season saw challenges with drought, fire and weather impacting volunteer groups that travel from near and far. While some projects had to be cut short or cancelled to avoid dangers associated with road closures, fire or floods - CUSP volunteers pulled together like family to assist people and places in need. This year, over 3,000 volunteers have worked over 20,000 hours, with more projects in the works. Work has included river restoration, tree planting, seeding native vegetation and trail maintenance. Mid-season we included volunteer projects to help our neighbors in the Waldo Canyon burn area with immediate erosion control measures, including seeding, mulching, log erosion barriers and urgently needed sandbagging projects to protect homes. We are very honored to work with some of the most generous and hardworking people in Colorado and the nation. Thank you for your selflessness. Here is a spotlight on just a few of our generous volunteers:

**Cindy Orton, Girl Scouts of America Troop Leader, #256**

Cindy and her troop have worked on many of our projects over the more than three years they have been volunteering with CUSP. This year Cindy organized a two-day multi-troop planting project in the Hayman burn to honor the 100th Year Anniversary of Girl Scouts. She “absolutely loves the outdoors and loves opening the girls’ eyes to the gift we have here. The troop is so proud of the work they do with CUSP, they love getting dirty and knowing that the work they do makes a difference.”

**Steve Taylor, Outdoor Enthusiast and a really good guy**

Steve joined the CUSP family of volunteers this season. He has joined us on many projects this summer and shared his family: Krista, Finn and his brilliant father Joe, plus friends and neighbors. “I spend a lot of time down here climbing and fly fishing. The South Platte has given me a lot in my life, so I figure I should give something back.” We are glad you found us, Steve.

**John Aaron, Dedicated member of the Cutthroat Chapter of Colorado Trout Unlimited**

John is one of the most colorful volunteers to be found, yet is not a fan of purple waders. He has been working for years to improve cold water fisheries and habitat. “This is our home water right here. What we love is right here. I just hope we make a difference.” Yes, John you do make a difference!
With your support, we raised over $20,900 plus a generous matching grant of $2,500 from Cripple Creek & Victor Gold Mining Company through Indy Give!

Kevin Russo, a long-time friend and CUSP supporter, painted this beautiful mural for our Donor Appreciation Wall

Thank You 2012 Donors

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Dynamic Lures
Eagle Claw

I have found that among its other benefits, giving liberates the soul of the giver - Maya Angelou
Congratulations to the 2013 Antero Ice Fishing Contest Winners!

1st Place: Aaron Lasch with a 5.4 lb Cutbow Trout
2nd Place: Ronnie Malouff Jr. with a 5.25 lb Cutbow Trout
3rd Place: Dillon Sitsler with a 4.8 lb Cutbow Trout

Check out pictures from the event by visiting http://antero-icefishing-contest.com and liking us on Facebook at www.facebook.com/uppersouthplatte