

# Table of Contents

Overview	1
Programs and Projects	2
Forest Health  Department of Natural Resources Wildfire Risk Reduction Grant Community Wildfire Protection Plans Fire Suppression Team Slash Drop Off Sites Mitigation and Fuels Reduction Program Fire Adapted Communities Learning Network Upper Fountain Creek Watershed Restoration Project Upper Monument Creek Landscape Restoration Initiative Forest Health Statistics	3 3 4 5 5 6 6 7 8
River Restoration Trail Creek Horse Creek River Restoration Statistics	11 11 12 12
Water Quality Monitoring Eleven Mile Canyon Water Quality Sampling South Park Water Quality Mines and Mineral Extraction Assessment Source Water Protection Planning Water Quality Statistics	13 13 13 15 15
Wildfire Recovery and Rehab Waldo Canyon Fire Springer Fire Wildfire Recovery and Rehab Statistics	16 16 19 19
Education and Outreach High Creek Fen Site Stewardship Program Service Learning Modules	20 20
Other Programmatic Work Antero Ice Fishing Contest Sustainability and Energy GIS Mapping Noxious Weed Management Roads Trails Database Development	222 22 24 26 26 27 27
inances and Management	28
Oonors and Supporters	32
Resources	33

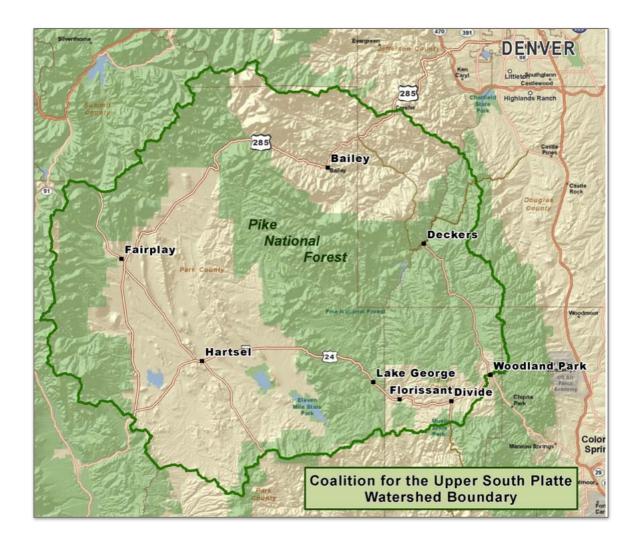
# Overview

Vision: A healthy watershed - now and in the future

**Mission:** To protect the water quality and ecological health of the Upper South Platte Watershed, through the cooperative efforts of watershed stakeholders, with emphasis placed on community values and economic sustainability.

2013 was a challenging and exciting year for the Coalition for the Upper South Platte (CUSP). With a staff of 25, we made progress on a variety of projects throughout the watershed and in areas affected by the Waldo Canyon Fire. Over 6,500 volunteers made these projects possible by donating almost 42,000 volunteer hours working in areas of critical need. The following pages highlight some of CUSP's accomplishments in 2013.

Thank you to all our supporters who make our work possible!



# **Projects and Programs**

In 2013, we continued with many projects throughout the Upper South Platte Watershed, and at the request of our neighbors in connecting watersheds, built on post-fire rehab efforts started last year in the 2012 Waldo Canyon Fire burn scar.

CUSP worked on the following projects and programs in 2013:

- Forest Health and Fire Rehabilitation
- River Restoration
- Water Quality Monitoring
- Education and Outreach
- Antero Ice Fishing Contest
- Sustainability and Energy
- GIS Mapping
- Noxious Weed Management
- Roads
- Trails











## Forest Health



Forests cover the majority of the Upper South Platte Watershed, so the health of our watershed is intimately tied to the health of the forests. Healthy forests act as a living filter to improve the quality of water throughout the watershed and in areas downstream. In the Upper South Platte Watershed, ponderosa pine forests dominate, with areas of mixed conifer, aspen, and lodgepole. These forests are currently overcrowded and in poor health, leaving them vulnerable to insect infestations, disease outbreaks, and catastrophic fire. CUSP proactively works on projects to improve the health of the forests and protect communities. Some of CUSP's major forest health programs and highlights of 2013 included:

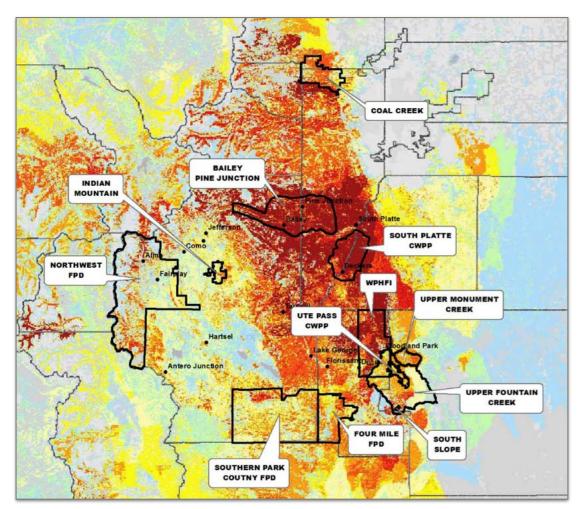
### Department of Natural Resources Wildfire Risk Reduction Grant

CUSP was awarded \$1 million through the state's Wildfire Risk Reduction Grant Program in 2013. The grant program was established to fund projects that reduce the risk of damage to property, infrastructure, and water supplies, with a focus on the wildland-urban interface. CUSP will use the funds to build upon previous wildfire risk reduction work. One focus is continuing to implement Community Wildfire Protection Plans – community-wide plans that bring together diverse stakeholders to prioritize risk reduction projects and work together on local challenges. Another focus is on implementing mitigation projects that account for conditions across the landscape, prioritizing areas most in need of work to emulate a natural, healthy forest composition. Through these two main areas of focus, grant funds will contribute to hazardous fuels reduction; creation of fuel-free buffer zones; increased forest resiliency; community empowerment to lead efforts to improve preparedness and safety; and increased capacity for local biomass utilization.

Many years of planning by CUSP and other partners helped identify areas of need based on wildfire intensity, watersheds at risk, proximity to communities, and previous work. 1,050 priority acres will be treated in 12 primary areas in 2014:

- Coal Creek
- Bailey/Pine Junction
- Indian Mountain
- The Northwest Fire Protection District, encompassing Alma and Fairplay
- Along the South Platte River near Deckers
- Woodland Park
- Ute Pass
- Upper Monument Creek
- Upper Fountain Creek

- South Slope near Colorado Springs
- Four Mile Fire Protection District
- Southern Park County Fire Protection District



Fuels mitigation areas of focus. Darker red indicates higher drinking water risk from wildfires.

# Community Wildfire Protection Plans

In addition to the focus on community protection planning for the Department of Natural Resources Wildfire Risk Reduction Grant, CUSP continued implementing numerous local and county Community Wildfire Protection Plans (CWPP) throughout the watershed. The Stagestop Plan in Park County and the tri-county, multi-agency CWPP for Southern Park County, Four Mile, and Fremont Tallahassee Rural Fire Protection Districts were completed in 2013. These CWPPs identified mitigation needs and will help further collaboration between multiple agencies in these communities.

### Fire Suppression Team

The eight-member CUSP Fire Suppression Team was essential in the initial attack of several small fires in 2013. Our firefighters work under existing agreements with Florissant and Mountain Communities Fire Protection Districts, and assisted in initial and extended attack on 10 fires within the watershed. They also participated in prescribe fire activities. CUSP will continue providing professional training for the crew in 2014, and will complete the build of the CUSP type-6 brush truck.



CUSP's brush truck

### Slash Drop Off Sites



Fairplay Biomass Site

CUSP operates two low-cost drop-off sites for slash accumulated by homeowners who are performing mitigation projects on their property. One operates in Divide and one operates in Fairplay during fire bans. Slash is chipped, and mulch can be picked up for free from the drop off sites when available. Both slash sites experienced high traffic in 2013 as property owners proactively reduced fuels on private lands. Over 3,500 loads of slash were received at the two slash sites. Landowners treated just under 300 acres, and put in approximately 12,800 hours accumulating slash and improving the health of their properties.

In 2013, at the request of Fairplay School District, CUSP began developing a model for providing wood chips to operate the biomass boiler located at the Silverheels Middle School in Fairplay, CO. The Fairplay Biomass Sort Yard received initial funding from the Colorado Department of Natural Resources' inaugural Wildfire Risk Reduction Grant Program. With this funding and significant in-kind resources donated by the Town of Fairplay and Park County, CUSP acquired equipment and identified and developed a suitable location for the processing site. The sort yard was operational by the end of the year, and promises to be an effective method for reducing wildfire risk and utilizing wood products in a sustainable manner.

### Mitigation and Fuels Reduction Program

With funding from the Department of Natural Resources, the U.S. Forest Service, Colorado State Forest Service, The Nature Conservancy, Colorado Springs Utilities, and participating landowners, CUSP continued projects to restore forest health and reduce wildfire risk on private properties throughout and adjacent to the watershed. In 2013, work included mitigation at Glacier Ridge, Sourdough, Woodrock, Catamount Center, Elk Vally Estates, Ridgewood, Forest Edge, Indian Mountain, Ute Lakes, Upper Fountain Creek and multiple individual properties.

CUSP also continued assisting neighbors with thinning through the operation of our chipper, also known as our Neighborhood Fuels Reduction Program. For communities with multiple individuals with too much slash to haul themselves, CUSP brought our chipper out to provide a cost-effective disposal method. In addition to chipping slash to produce mulch, CUSP's crew burned a limited number of slash piles when conditions allowed.





# Fire Adapted Communities Learning Network

Fire Adapted Communities is a collaborative, community-wide approach for taking responsibility for wildfire risk. Recognizing the importance of continuing to improve how we approach adapting to living with wildfire, Fire Adapted Communities kicked off the Fire Adapted Communities Learning Network Pilot Project in 2013. The project seeks to build upon proven strategies, improve fire-adapted methods, and promote more communication within communities and between communities about what works to reduce wildfire risks. CUSP was selected as one of eight network hubs across the nation for the pilot project. As a network hub, CUSP works to bring people together to focus on reducing wildfire risk.

The first year of the program was focused on outreach and information sharing. CUSP worked to strengthen coordination between existing partners, including community members, home owners associations, businesses, fire departments and districts, the U.S. Forest Service, and



The 8 initial Fire Adapted Communities Learning Network Hubs

local and county governments, to ensure ongoing risk reduction efforts compliment one another. CUSP hired a local resident to lead the Front Range Fire Adapted Communities Project and work as the community liaison, and partnered with Studio M of Metropolitan State University to create a logo and future outreach materials.

CUSP also shared the innovative ways communities in the region are preparing for wildfire and

discussed best practices with local, regional, and national partners in the first year of the pilot project. Using the <a href="wphfi.org">wphfi.org</a> site, CUSP shared updated information on forest health and wildfire preparedness. Ongoing forest management projects in the watershed were also used as opportunities for outreach and education about forest health and wildfire risk.

This nationwide network will expand in the coming years, and CUSP will continue to actively participate in collaborative wildfire risk reduction at the local, regional, and national level.

# Upper Fountain Creek Watershed Restoration Project

Residents of Teller County and El Paso County benefited from work completed using the forest restoration approach to improve forest health and mitigate wildfire while seeking to create a resilient and healthy forested ecosystem. The project focused on high-priority acres in the vicinity of the Fountain Creek headwaters. Local organizations, including Colorado Springs Utilities, Colorado State Forest Service, Natural Resource Conservation Service, Colorado College, and CUSP, received part of a \$450,000 grant awarded to the project through a national partnership between the U.S. Forest Service and The Nature Conservancy.

The Upper Fountain Creek Watershed Restoration project is one of only six such projects across the country, and is made possible through a partnership between the U.S. Forest Service and The Nature Conservancy. Known as Scaling Up to Promote Ecosystem Resiliency (SPER), this partnership is focused on demonstrating the value of implementing forest restoration treatments on private and other non-federal lands in order to expand the overall positive impact of similar treatments on U.S. Forest Service land.

Building on work accomplished in 2012, CUSP completed all elements of the planned work within the Upper Fountain Creek Watershed in 2013. Project partners including

CUSP, Colorado State Forest Service, National Resource Conservation Service, Colorado Parks and Wildlife, and Colorado Springs Utilities worked closely with private landowners to carry out forest prescriptions that enhance ecological values and mitigate wildfire risk. Over 350 acres of forest mitigation and restoration work was completed in the Upper Fountain Creek Watershed near Woodland Park, CO. Monitoring will continue to better understand the effectiveness of the work and to garner lessons that will be used as CUSP and our partners continue to scale up our forest management efforts throughout the watershed.

### What is ecological restoration?

Ecological restoration is an intentional activity that initiates or accelerates ecosystem recovery with respect to its health (functional processes), integrity (species composition and community structure), and sustainability (resistance to disturbance and resilience). Restoration attempts to return an ecosystem to its historic trajectory, i.e. to a state that resembles a known prior state or to another state that could be expected to develop naturally within the bounds of the historic trajectory (also called 'natural range of variability'). The restored ecosystem may not necessarily recover its former state, since contemporary constraints and conditions can cause it to develop along an altered trajectory."

—Adapted from Clewell and others (2005). Ecological Restoration Society International: Guidelines for developing and managing ecological restoration projects, 2nd edition

# Upper Monument Creek Landscape Restoration Initiative

The Upper Monument Creek Landscape Restoration Initiative began in 2012 to accelerate forest restoration in a high priority area in the Pike National Forest. The initiative is a highly collaborative project focused on developing science-based restoration and management recommendations for the Upper Monument Creek landscape that will improve ecological resilience, protect watershed resources, and reduce community wildfire risks. The focus area of the initiative encompasses 67,000 acres in Colorado's southern Front Range in urgent need of forest restoration.

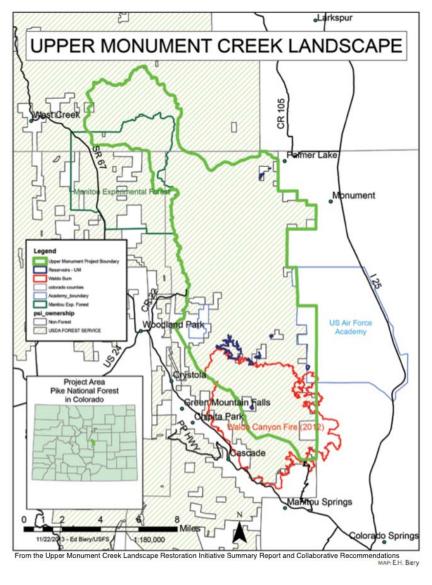
In 2013, collaborators on the initiative began the scoping project and completed a report outlining recommendations for the focus area that will guide forest restoration work going forward. Recommendations include:

 Design and implement forest treatments at a meaningful scale - 18,000 acres over 10 years

- Strategically schedule and locate treatments to maximize benefits, with the Upper Monument Creek, Beaver Creek, and West Monument Creek areas considered priorities for early action
- Carefully design treatments, accounting for ecology of system and purpose of management
- Coordinate with local communities
- Consider and plan for potential effects of climate change when designing restoration plans
- Carefully consider habitat for plants and animals during the design and implementation of treatments
- Design and implement treatments to sustain local forest businesses and facilitate effective utilization of biomass when possible
- Use an adaptive management approach;
  - adaptive management "promotes flexible decision-making that can be adjusted in the face of uncertainties as outcomes from management actions and other events become better understood" (National Research Council)
- Incorporate a robust monitoring program to track progress and inform decisionmaking
- Foster ongoing collaboration and stakeholder engagement in the process

The full report is available at <a href="http://www.conservationgateway.org/">http://www.conservationgateway.org/</a> ConservationByGeography/NorthAmerica/UnitedStates/Colorado/Pages/umc.aspx

While the Upper Monument Creek Landscape Restoration Initiative focuses on federal lands, CUSP is actively engaging private communities and residents adjacent to federal lands where work is slated to occur. The initiative is an example of the cross-boundary projects that are essential when combating challenges presented by wildfires.



## 2013 Forest Health Statistics

(see page 19 for wildfire rehab statistics)

- 1,320 total acres mitigated
- 544 acres chipped
- Over 3,500 loads of slash delivered to the Divide and Fairplay slash sites, with 299 acres treated by landowners
- \$591,089 paid to private contractors for forest health work on 820 acres









Before ecological restoration & wildfire mitigation



After ecological restoration & wildfire mitigation

## River Restoration

Rivers are the lifeblood of our communities and our watershed. CUSP is committed to protecting our rivers and streams so we can all enjoy them for generations to come. We work with partners from all sectors to restore aquatic habitats, improve water quality, and ensure recreational opportunities abound in and along rivers and streams.

#### Trail Creek

Trail Creek is a tributary to Horse Creek, and subsequently the main stem of the South Platte River at Deckers. This river section was overwhelmed by significant flooding and erosion events following the 2002 Hayman Fire. In a highly collaborative effort, CUSP, the National Forest Foundation, Vail Resorts, the Colorado Department of Public Health and Environment, Douglas County, the City of Aurora, the Water Conservation Board, other donors, and the Pike National Forest came together in 2009 to address post-fire flooding and erosion in Trail Creek on a large scale. Dave Rosgen, renowned hydrology expert and creator of the Watershed Assessment of River Stability and Sediment Supply (WARSSS) methodology, was hired in 2010 to help develop and implement a restoration plan for the area. In the following years, the restoration plan was implemented through collaborative efforts to stabilize channels; restore natural floodplains; mitigate erosion; and improve trails and roads. In 2013, we started putting the finishing touches on the project. CUSP and our dedicated volunteers helped restore and revegetate sites impacted by heavy machinery work; decommission roads; and constructed buck and rail fences to protect restored areas. The Trail Creek Project has drastically improved river stability and sediment movement (keeping about 16,000 tons of sediment out of the river), and improved aquatic habitats. It stood up to intense rain events during the monsoon season in late summer and early fall of 2013.



Before & after work in Trail Creek



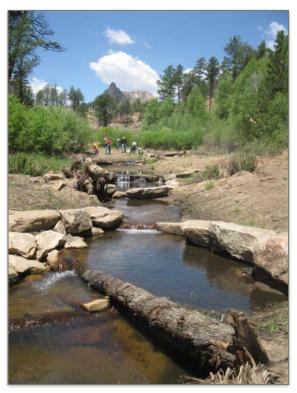
Volunteers plant willows along Trail Creek

#### Horse Creek

Building on the work done in Trail Creek, CUSP and our partners are moving downstream to address impairment in Horse Creek. This South Platte tributary just outside of Deckers was also hit hard by extreme flooding following the 2002 Hayman Fire. We began planning for work in Horse Creek in 2013, including collecting the necessary field data required to develop the plan. Planned work for the coming years will be based on similar methods as those found to be successful in Trail Creek. After a Watershed Assessment of River Stability and Sediment Supply (WARSSS), river restoration work will include reworking channels, creating sediment catchments to mitigate flood flows, repairing headcuts, and maintaining roads and trails.

#### 2013 River Restoration Statistics

- \$39,966 paid to river restoration contractors
- 14 macroinvertebrate samples taken at 12 sites in Trail Creek and Horse Creek
- 23.75 acres treated or monitored
- 973 willows planted
- 31 volunteers contributed 214 volunteer hours to river restoration work
- 116 volunteers contributed 929 volunteer hours to work on roads adjacent to Trail Creek and Horse Creek



Restoration work in Trail Creek

# Water Quality Monitoring

High quality water is essential for ecological health, sustainable drinking water sources, and our continued enjoyment of the resources and beauty in the watershed. Protecting water quality is a core part of CUSP's mission and the definitive indicator of the health of the watershed, so we strive to understand water quality conditions and proactively address pollution throughout the watershed.

### Eleven Mile Canyon Water Quality Sampling



Eleven Mile Canyon lies below the dam at Eleven Mile Reservoir just outside of Lake George. This area is a popular recreation site, with over 200,000 people visiting Eleven Mile State Park each year. After initial samples in 2011 indicated high nutrient levels in the area, a 2012 grant from the U.S. Forest Service enabled old vault toilets that may have been leaching excess nutrients into the South Platte River to be replaced at the Spillway and Riverside Campgrounds. CUSP followed up our 2011 sampling with water quality sampling in the same stretch of the river during the summer of 2013 with funding support from the U.S. Forest Service. CUSP tested for phosphorous and nitrogen, the two main nutrients of concern, at nineteen locations along the South Platte River near Eleven Mile Canyon during three separate times during the spring, summer, and fall of 2013. The sampling revealed nutrient levels continued to be high in the summer and fall, indicating nitrogen and phosphorous must be leaching into the waterway from additional

sources. We will continue to seek additional opportunities to identify and address pollution sources.

# South Park Water Quality

South Park, a high altitude intermontane valley spanning much of Park County, is an important region within the Upper South Platte Watershed. With its diverse geology, South Park has a long history of energy exploration and development. As energy development booms in Colorado, energy developers have looked toward South Park to expand their operations. This interest has led to a concern over potential impacts on vital water resources in the area. In response to community concern, CUSP initiated the South Park Baseline Water Quality Study to document current surface and groundwater quality in South Park. We tested groundwater and surface water in 2011 and 2012 to gather baseline data on water quality conditions before energy development occurred. This data will provide the community, regulatory agencies, and

developers with baseline water quality conditions, so everyone can assess any changes in water quality.

In partnership with the Colorado Geological Survey and the U.S. Geological Survey (USGS), CUSP expanded on this work in 2013. The 2013 South Park **Groundwater Quality Scoping** Study was initiated to determine the number and optimal locations for a network of monitoring wells across the greater South Park area. The scoping study also presents an in-depth analysis of the area's hydrogeology and its influence on groundwater movement, quality, and vulnerability to impacts from energy resource extraction. The study proposes a network of 105 wells chosen based on their underlying geology and which aquifers, or underground lenses of water, they are in. CUSP will use this network to continue monitoring the water quality in South Park in the coming years. In May 2013, four monitoring wells were drilled by the USGS with funding support from the Colorado Water Conservation Board. Following well

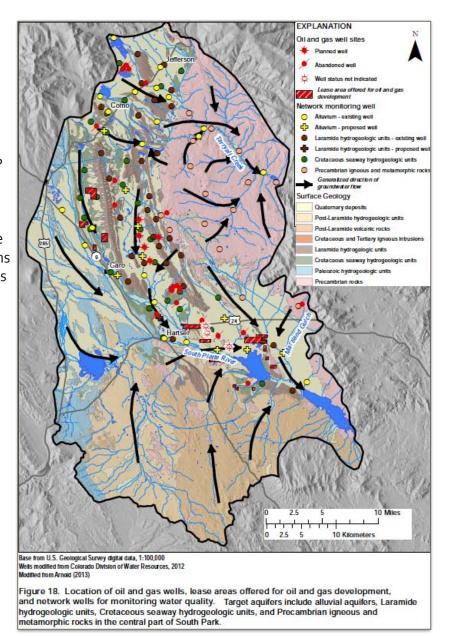


Figure from the 2013 South Park Groundwater Quality Scoping Study

installation, the USGS performed water quality sampling and well testing in the fall of 2013. The results from this testing will be available as a USGS publication and open-file report in 2014. This data will be important for understanding baseline water quality conditions, both related to energy development and other situations that may impact the watershed in the future, and to build a better picture of where we can improve water quality and address existing sources of pollution impacting water quality today.

Both the South Park Baseline Water Quality Study and the South Park Groundwater Quality Scoping Study can be found on CUSP's website (<a href="http://uppersouthplatte.org">http://uppersouthplatte.org</a>).

#### Mines and Mineral Extraction Assessment

In 2013 CUSP partnered with the Environmental Protection Agency (EPA) and U.S. Forest Service (USFS) to continue monitoring near mine sites of interest in the northern part of the watershed. CUSP staff assisted with water quality sample collection in late May 2013. Buckskin Gulch and Mosquito Gulch, headwaters tributaries that feed into the Middle Fork of the South Platte River, were sampled to identify seasonal trends and delineate the source and extent of metal loading. CUSP will continue to partner with these agencies for the 2014 sampling season and we hope to perform reclamation and revegetation actions at a small mine site in Buckskin Gulch.

### Source Water Protection Planning

In 2013, Denver Water started their Source Water Assessment and Protection Program. In the first phase of planning, Denver Water is focusing on the Upper South Platte Watershed. SUSCEPTIBILITY This cooperative process funded by the Colorado Department of Public Health and Environment brings watershed stakeholders together to identify potential pollutant sources and best management practices for protecting our shared water resource. Colorado The plan that emerges from this process will SWAP provide a blueprint for collaboratively Program implementing effective programs that address contaminants of concern throughout the watershed. CUSP is participating in this process as A otection Phase the facilitator. The process will continue in 2014 with discussions of topics including wildfires, forest health, agriculture, energy development, mining, land use and development, transportation, and recreation as they relate to water quality. Find out more about the program and get involved at <u>uppersouthplatte.org/sourcewater.html</u>.

# 2013 Water Quality Statistics

- 57 water quality samples taken in Eleven Mile Canyon
- 4 monitoring wells that were drilled by the USGS sampled
- Assisted the EPA and USFS with 16 water quality samples in Buckskin Gulch and Mosquito Gulch

# Wildfire Recovery and Rehab

Our forests are adapted to fire, but with a century of well intentioned, but misguided fire suppression policies, our forests have been denied the low-intensity ground fires that historically helped open up canopies and rejuvenate forests. The lack of regular fire has led to the buildup of fuels in the forest and an environment ripe for high-intensity wildfire. When these catastrophic fires strike the Upper South Platte Watershed and connecting watersheds, CUSP uses our experience with post-fire rehab to react quickly and thoughtfully to address immediate needs and begin long-term restoration.

### Waldo Canyon Fire

A couple of weeks after the Hayman Fire's 10th anniversary, the Waldo Canyon Fire sent smoke billowing into the sky near Colorado Springs. Reported on June 23, 2012, the Waldo Canyon Fire consumed over 18,000 acres, burned 346 homes, and killed 2 people, becoming one of the most destructive fires Colorado has ever seen by the time it was contained on July 18.

As the community grappled with the magnitude of the fire's impact, CUSP was enlisted for recovery assistance by staff from the Pike National Forest, Colorado Springs



Restoration above Colorado Springs protects residents below

Utilities, El Paso County, the City of Colorado Springs, the City of Manitou Springs, and private landowners. Although the Waldo Canyon Fire did not burn in the Upper South Platte Watershed, we felt compelled to assist our neighbors with rehab efforts in connecting watersheds, and to protect the key transportation corridor in and out of our watershed on the southeast side. With our Board of Directors' approval, CUSP has been collaborating with multiple agencies, organizations and private citizens on recovery efforts using the lessons learned from the Hayman Fire.

Rehab efforts in the Waldo Canyon Fire burn scar were once again very urgent in 2013. The steep slopes and close proximity to communities and vital infrastructure add to both the challenge of the rehabilitation effort and the immediacy in which it must be carried out. Recognizing that floods follow fires, CUSP and our partners did a tremendous amount of work in 2013 to mitigate flooding and start restoring the landscape on public and private lands. The efforts of many generous volunteers that assisted in 2013 were essential for getting work done with the goals of protecting surrounding communities; saving lives, property, and infrastructure; and beginning the healing process in the forest.

Emergency stabilization and flood mitigation were the primary focuses of rehab efforts in 2013. This work is the foundation for long-term restoration that will take decades. Efforts included:

- Assisting with the Watershed Assessment of River Stability and Sediment Supply (WARSSS) to assess sediment movement across the landscape and identify priority areas most in need of work.
- Constructing flood barriers (e.g. sandbag walls and RIBS bags) to protect structures and properties from flood waters.
- Installing erosion control structures, such as log erosion barriers and wattles, to reduce erosion by slowing water and trapping sediment
- Setting up dumpsters and cleaning out debris in and along Fountain Creek, which
  runs through Manitou Springs. Debris in the creek's floodplain is susceptible to
  being picked up by floodwaters and becoming hazardous and damaging
  projectiles for those downstream. In addition, debris removal reduced the risk
  of items clogging up the waterway and creating a dam that could break and
  cause a surge of dangerous floodwaters rushing downstream.
- Sediment basin installation to reduce erosion and flooding by slowing down and spreading floodwaters to facilitate the deposit of sediment over a larger floodplain area.
- Developing the Waldo Canyon Fire Impacts and Recovery Map as a tool for partners and the public to understand the fire in a historical and geographic context, and to see where work is being done and by whom. The map can be found at <a href="http://waldofire.org/map/">http://waldofire.org/map/</a>
- Seeding native plants and nurse crops to stabilize hillslopes. Revegetation helps reduce erosion and flood impacts because soil with ground cover can better absorb rain, which slows the flow of runoff and reduces the amount of sediment carried downstream by storm water. Promoting growth on barren soils is also important for revitalizing habitat, preventing noxious weed invasions, and preparing for larger species, such as trees, to be planted after emergency stabilization is complete.















CUSP also assisted with emergency preparedness in anticipation of post-fire flooding in 2013. Knowing that impending flooding was likely to cause a significant amount of damage and threaten community safety, CUSP and our partners made a concerted effort in 2013 to reach out to communities and give people the tools they needed to be prepared for post-fire flooding that inevitably struck the area. Manitou Springs, Cascade, Green Mountain Falls, Colorado Springs, and anyone who depends on Highway 24, which borders the southwestern edge of the burn scar, are at greater flash flooding risk for years to come.

CUSP worked with businesses, individuals, government, and other organizations to plan for post-fire flooding and keep communities informed. Efforts included:

- Performing risk assessments to identify properties and other values in danger of being impacted by post-fire flooding
- Helping to develop evacuation plans for Manitou Springs and Cascade
- Participating in community meetings to prepare residents and businesses for the flood season
- Hosting several tabletop exercises in Manitou Springs to help residents develop their emergency plans by talking through simulated flood events
- Going door to door to talk to businesses and residents about their risk and how they could mitigate flooding impacts
- Assisting communities with flood mitigation structures and planning
- Helping to define the Incident Action Plan for post-fire flooding
- Working in the Incident Command Center when devastating floods hit the Ute Pass area
- Coordinating volunteers to assist with post-flood cleanup
- Performing damage assessments following destructive 2013 flooding

CUSP's efforts in areas affected by the Waldo Canyon Fire will continue as needed in the coming years, though we are working with community members in the impacted areas to take over more of the work. The restoration process is just beginning and it will take decades to fully restore the area and establish a healthy forest.









Post-flood cleanup

Community outreach

Before & after flooding in Manitou Springs

Example of flooding impacts in Haggerman Drainage

## Springer Fire

The Springer Fire ignited just outside of Lake George in June 2012. The 1,145-acre fire was fully contained in the Upper South Platte Watershed. The fire's close proximity to the South Platte River threatens water quality and erosion in the burn scar is a concern. To address these concerns, CUSP assisted with restoration in 2013. Volunteers including the Trout Unlimited Cutthroat and Cheyenne Mountain Chapters and Cripple Creek and Victor School Districts Soaring Without Limitations lent a hand to build erosion structures and reseed the area to promote growth of native vegetation. These efforts are critical for preventing water contamination by reducing erosion and the amount of sediment and other pollutants flowing into the South Platte River.





Volunteers assist in the Springer Fire burn scar

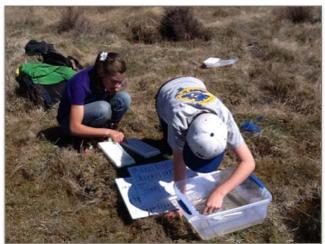
## 2013 Wildfire Recovery and Rehab Statistics

- 148 rehabilitation workdays
- \$1,945,686 paid out to wildfire restoration contractors
- 3,876 volunteers donated their time to rehabilitation efforts in the Hayman Fire, Springer Fire, and Waldo Canyon Fire burn scars. Volunteers contributed 23,679 volunteer hours

## **Education and Outreach**

Education is the common thread that runs through all of CUSP's work. In everything we do, we hope to teach and inspire those we work with to become stewards of the land and water.

#### High Creek Fen Site Steward Program



Students identify macroinvertebrates

With funding from the South Park National Heritage Area, CUSP taught 7<sup>th</sup> grade science classes about water quality, ecological health, and monitoring important natural resources in South Park. The High Creek Fen Program is a week-long program developed in 2012 to engage students in learning about the unique biodiversity in the South Park area. This program brought hydrology and watershed professionals into the classroom and allowed students to explore what they were learning by taking a field trip to the High Creek Fen, the most ecologically diverse fen in the Southern

Rocky Mountains. Students performed water tests, recorded observations, collected monitoring data, discovered how macroinvertebrates act as stream health indicators, and learned about water chemistry. The second year of the program was a great success, and CUSP will continue to support the program as it becomes an annual event for South Park middle school students in future years. Ultimately, the program has the potential to foster the next generation of natural and heritage resource stewards in the South Park area and provide longitudinal data to monitor the health of this valuable wetland over time.

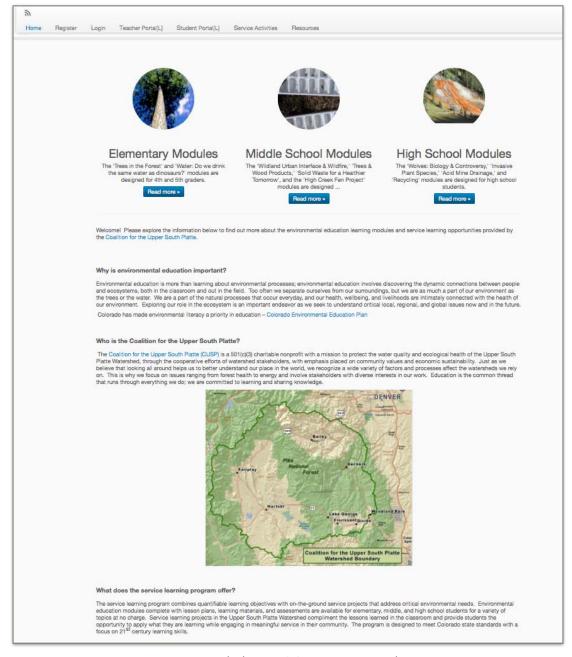
# Service Learning Modules

CUSP updated and improved our environmental education and service-learning website in 2013 with the generous support of Xcel Energy. The site offers environmental education modules created by CUSP staff that provide teachers and students with interactive, standards-based lessons that can be paired with hands-on service-learning projects in the watershed. Modules appropriate for elementary up to the high school level were developed to engage students in exploring important local, national, and global environmental issues. Learning module topics include:

- Forest Health
- Watersheds

- Wildland Urban Interface
- Trees and Wood Products
- Wolves: Biology and Controversy
- Invasive Species
- Acid Mine Drainage
- Recycling
- Solid Waste Management

CUSP will continue developing learning modules that are responsive to community needs in 2014. Modules can be accessed with free registration at <a href="http://learn.uppersouthplatte.org">http://learn.uppersouthplatte.org</a>.



Environmental Education & Service Learning Website

# Other Programmatic Work

#### Antero Ice Fishing Contest



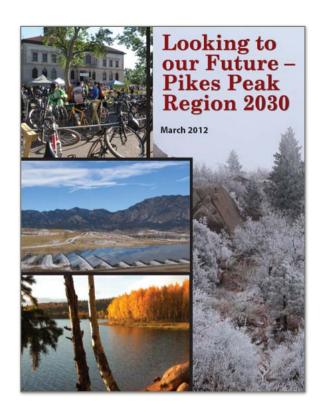
1st place winner Aaron Lasch

On Saturday, January 19, 2013, nearly 500 dedicated fishermen and fisherwomen braved the frigid temperatures hoping to win the top prize at the Antero Ice Fishing Contest. Aaron Lasch took that honor with a 23 inch cutbow trout that weighed in at 5.4 pounds. This annual event keeps gaining in popularity, bringing in anglers from all over the state and beyond. The family-friendly environment and the great door prizes are always a big hit. As of December 31, 2013, we have raised \$28,500 since CUSP started hosting the event. This money will be used for recreational improvements at the reservoir for all to enjoy in the coming years. The event is cosponsored by Denver Water, Colorado Parks and Wildlife, and CUSP, with local businesses generously donating door prizes.

## Sustainability and Energy

The Teller Energy program is a resource for energy efficiency, renewable energy and sustainable practices in the region. In keeping with CUSP's mission, it strives to improve our quality of life by balancing economic vitality, a healthy vibrant community, and mindful stewardship of our natural resources and environment for current and future generations.

CUSP continues with its leadership role on the Advisory Board of the Peak Alliance for a Sustainable Future (PASF), promoting 10 focus areas of sustainability in Teller and El Paso Counties. These two counties collaborate, through PASF, to advance the Pikes Peak Regional Sustainability Plan (Looking to Our Future – PPR 2030). In 2013, PASF developed a dedicated website and a Facebook page, held its first fundraising campaign, and began a partnership with Sustainable Fort Carson to engage the community in monthly breakfast meetings. Please visit peakalliance.co for more information.



Educational and outreach events, efforts and successes in 2013 included: promoting Project Learning Tree's Green Schools program and CSU Extension Office's Clean Energy and Wind for Schools curriculum workshops at Park County's new LEED certified school in Fairplay; encouraging Cripple Creek/Victor School District to adopt their first comprehensive Sustainability Policy, Environmentally Preferred Purchasing Policy and recycling program; promoting Florissant Fossil Bed's new energy efficient and renewably powered visitor center; holding energy booths at Teller County's Earth Day and County Fair; providing energy and sustainability related articles to the Ute Country News; backing establishment of the Panther Electronic Recycling program at the Woodland Park Middle School; continued posting of TellerEnergy.com blogs, events, energy tips and sustainability news; and participating in the Clean Energy Working Group in El Paso County to support renewable energy, energy efficiency and a strong energy vision for the region going forward.

Teller Energy promoted various energy efficiency programs in the region through its partnerships with local gas and electric utilities in 2013. Colorado Natural Gas offered low-cost residential energy audits to customers in their territory through the newly expanded Energy Smart program. Black Hills Energy and their partner Smart Watt provided their small business gas customers in Woodland Park with free energy audits, comprehensive reports, rebates for upgrades, and interest free financing. And the wildly successful Small Business Direct Install program for lighting upgrades in Black Hills' electric territory was available again in 2013. The City of Cripple Creek, having finished 40% of their street lighting project last year, added another 188,706 kWh to the previous Teller County savings of 3,078,728 kWh (equivalent) per year. In fact, all the entities that had undergone lighting retrofits in 2012 (the cities of Victor

and Cripple Creek, seven casinos and the CC/V School District) have already paid off their investment (9 – 12 months) and are enjoying real savings in capital and maintenance. Energy and resource efficiency truly is an example of the Triple Bottom Line in action, with environmental, social and economic benefits.

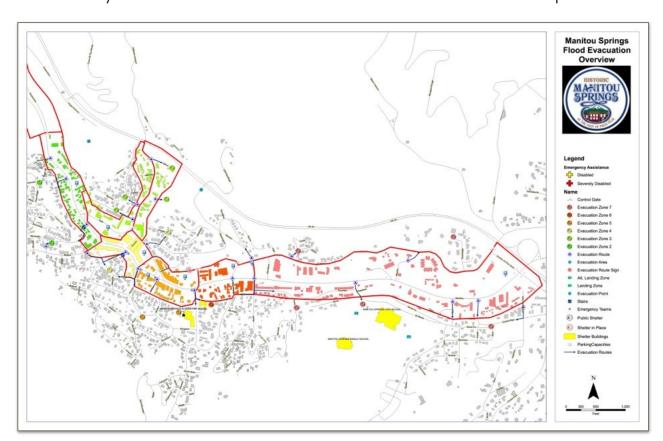


### **GIS Mapping**

CUSP's mapping capabilities are critical for planning projects, implementing programs, and collecting data. CUSP's GIS (Geographic Information Systems) team grew in 2013, and supported many of our core programs.

Maps were used to assist in developing a Community Wildfire Protection Plan (CWPP) for the Garden Park subdivision in Fremont County, and in completion of a joint CWPP for Southern Park County Fire District, Four Mile Fire District, and Fremont Tallahassee Rural Fire Protection District.

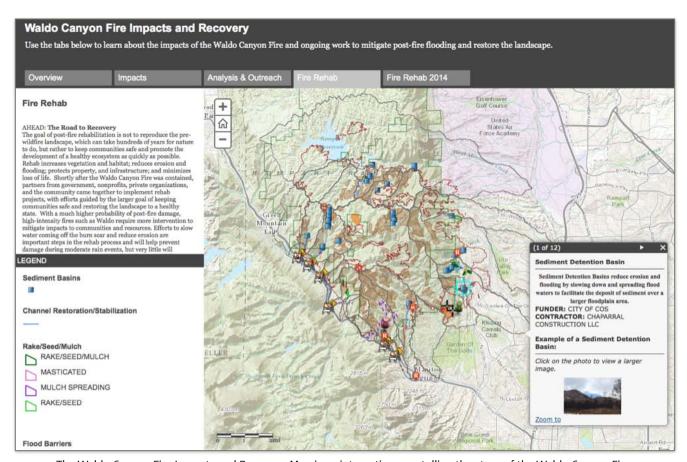
Mapping proved crucial in emergency preparedness along Ute Pass following the Waldo Canyon Fire of 2012. The fire left communities below the burn scar along Highway 24 at an increased risk of devastating post-fire flooding. CUSP partnered with Peterson Air Force Base to develop emergency evacuation zone maps for Manitou Springs and an incident command map for the Manitou Police Chief in preparation for post-fire flooding. Large format versions of the evacuation zone maps were subsequently used by the Federal Emergency Management Agency (FEMA) during their damage assessment and response, which led to state and federal disaster declarations that resulted in additional funding for flood cleanup. CUSP also subcontracted our GIS Associate to Manitou Springs Utilities Department to assist with GIS data management related to emergency preparedness. In addition, CUSP assisted with flood preparedness outreach in affected communities. CUSP generated maps to encourage residents to prepare for flooding at interactive tabletop exercises that allowed community members to better understand their risks and establish evacuation plans.



Another piece of flood preparedness included cleaning up debris in and along Fountain Creek, which runs through Manitou Springs, to reduce the risk of objects damming up the creek or becoming projectiles in the event of a flood. Maps were used to identify items along the waterway that needed to be moved to safer locations, as well as in extensively documenting planning and progress of the cleanup effort.

A Waldo Canyon Fire Impact and Recovery Map was created to help the public and partners working on wildfire rehab understand post-fire impacts in a historical and geographic context, and to share work being accomplished in the community and on the ground to protect communities and help the landscape heal. The map will continue to be updated in the coming years and can be explored at <a href="waldofire.org/map/">waldofire.org/map/</a>.

Data collection and mapping is an integral part of CUSP's fieldwork. In 2013, the GIS team developed a custom application for collecting field data. This collection method has improved the quality of project data and our ability to assess and improve upon projects done on the ground.



The Waldo Canyon Fire Impacts and Recovery Map is an interactive map telling the story of the Waldo Canyon Fire. Find it at <a href="waldofire.org/map">waldofire.org/map</a>

### Noxious Weed Management

CUSP's 2013 Noxious Weed Program resulted in 148 treated acres and over 1,000 inventoried/monitored acres on public and private lands to control and/or eradicate 13 species on the Colorado's Noxious Weed List. CUSP also successfully integrated weed management with other projects, such as river cleanup and restoration, trail maintenance, fire rehabilitation and forest health projects. This integration allowed CUSP staff to educate volunteers about noxious weed management and the benefits of our efforts. CUSP leveraged \$10,000 in federal pass-thru funds for the



program with over \$20,545 in cash and in-kind support from stakeholders, landowners and volunteers.

#### Roads

Gravel and dirt roads are a major contributor of sediment in our streams and rivers. Starting in 2011, CUSP began working with partners to reduce sediment from erosion-prone roads adjacent to Sugar Creek and Pine Creek. These roads run along the South Platte River between Deckers and Sedalia in Douglas County.

Installation of structures for the Sugar Creek Demonstration Project was completed in 2012, and data collection began in 2013. Sediment catchment structures installed include: a grouted rock rundown that enters a stilling basin; a 'Smart Ditch' that enters into a stilling basin; and a large sediment catchment basin. The Sugar Creek area received significant precipitation during 2013, which sent sediment flowing into all of the structures. The structures successfully mitigated sediment movement, only allowing minimal amounts of sediment to escape, and eased the process of sediment removal for Douglas County. Expect a report documenting lessons learned and future recommendations in the coming year.

The Sugar Creek project is a pilot project that will be used to inform the more extensive work planned in Pine Creek.





Removal of 8 cubic yards of sediment using a vacuum truck along Sugar Creek

#### Trails

CUSP continued work on the Gill Trail in the summer of 2013. Despite limited events dedicated to trail work due to significant involvement with Waldo Canyon Fire rehab, CUSP continued to maintain the entire 3,200-foot section of the trail and worked in partnership with the U.S. Forest Service on additional projects associated with access to and from the River Trail. Work focused on trail maintenance, invasive weed control, and enhanced water control structures at trouble locations. We installed 5 water control structures and maintained trail tread on the entire 3,200-foot stretch with a group of 25 Colorado College students.



#### **Database Development**

CUSP continued to develop a cohesive database in 2013 as part of our efforts to maintain and analyze data. This database is helping us more easily track project data, create reports, and manage contacts. Storing and analyzing data is critical for us to monitor the success of our programs and understand the most effective methods to improve our projects. This database will ultimately enable us to maximize efficiency and quickly adapt our processes to achieve the greatest impact with the resources available.

# Finances and Management

CUSP is a 501(c)3 charitable nonprofit. Pursuant to our policies, CUSP has an audit by an outside Certified Public Accountant (CPA) firm each year. Our policies, audit, tax forms, and other documents relating to accountability and transparency are published each year on our website, and are available in hard copy upon request.

#### **Board of Directors**

Our board is made up of individuals who represent the various stakeholders in the watershed, and in 2013 included:

#### **EXECUTIVE COMMITTEE**

Mary Dawson - *Board Chair*, Environmental Programs Specialist, City of Aurora Patrick O'Connell - *Vice Chair*, County Planning & Zoning, Jefferson County Greg Aplet - *Treasurer*, Forest Ecologist, The Wilderness Society Dan Drucker - *Secretary*, Director & President, Center of Colorado Water Conservancy District

#### **BOARD MEMBERS**

Tom Eisenman - Development Director, Park County
Karen Berry - Board Member of Jefferson Conservation District
Connor Baker - Interested Individual
Marie Chisholm - Interested Individual
Kurt Dahl - Environmental Health Director, Teller County
Swithin Dick - Water Resource Engineer, Centennial Water & Sanitation
Garth Englund - Special Projects Engineer, Douglas County
Lynda James - Upper South Platte Water Conservancy District
Don Kennedy - Environmental Scientist, Denver Water

Don Logelin - VP for Programs at the Cheyenne Mountain Chapter of Trout Unlimited Kris Sexton - South Park Ranger District, USDA Forest Service

Tedd Stiles - Interested Individual

#### **LEADERSHIP TEAM**

Carol Ekarius - Executive Director
Jonathan Bruno - Operations Director
Jeff Tienken - Deputy Operations Director
Helen Dyer - Development and Outreach Director
Adam Nubern - Finance Director
Chris Fuller - Office Manager
Jeff Ravage - Deputy Director for IT
Carrie Adair - Deputy Director for GIS

### Fundraising

2013 proved to be another successful year for CUSP fundraising efforts. The generosity of local businesses and foundations, as well as individuals, provided critical support for our programs and projects. CUSP also strategically leveraged cash match for the many Federal and State grants CUSP manages.

FedEx provided extraordinary support, both through cash donations and volunteer support, for flood mitigation efforts throughout the Highway 24 Ute Pass corridor impacted by the Waldo Canyon Fire. T Rowe Price and LexisNexis continued their support of CUSP with financial contributions and volunteer workdays.



Thank you to Nosh for their generosity

Colorado Springs-based companies recognized our work in the Waldo Canyon Fire burn area. Koscove Metal held an Earth Week fundraising drive to benefit CUSP projects and also helped with cleanup projects along Fountain Creek. For several months, local restaurant Nosh held Wild Wings Wednesdays with proceeds benefiting CUSP. We also had a great Karma Hour at Bristol Brewery in their new home at Ivywild School.

With a wonderful donation of signed guitars and framed T-shirts from artists such as Crosby Stills, Nash and Young, Dave Matthews Band and John Mayer from the

Firefighters Fund established after the Hayman Fire, CUSP raised funds through a successful online auction.



Donated guitar signed by Crosby, Stills, Nash, and Young

In 2013 we also welcomed new foundation partners. The Joseph Henry Edmondson Foundation and The Leighty Foundation grants provided funding that allowed us to purchase much-needed tools and equipment for our many projects and supported work in Cascade and throughout the Highway 24 corridor.

As we move forward we will continue to identify new and different ways to diversify our funding streams, but we will always be dependent on the generosity of the individual donors who have supported our work over the years. We are deeply grateful for the trust and confidence demonstrated through these contributions and we will always work hard to honor that trust through the work we do.

# Revenue

Category	Unrestricted	Temporarily Restricted	2013 Totals	2012 Totals
Government grants	\$3,45 <sup>8</sup> ,755		\$3,458,755	\$2,174,253
Donated professional services	\$881,346		\$881,346	\$326,581
Contributions	\$256,286	\$14,450	\$270,736	\$129,658
Foundation and corporate grants	\$194,500		\$194,500	\$363,000
Program fees	<b>\$</b> 167 <b>,</b> 367		\$167,367	\$91,163
Special events income	\$10,940		\$10,940	\$22,367
Other revenue	\$9,130		\$9,130	\$11,335
Satisfied program restrictions	\$2,546	{ <b>\$2,</b> 546}		
Total Revenue	\$4,980,870	\$11,904	\$4,992,774	\$3,118,357

# Expenses

Program Services	Unrestricted	2013 Totals	2012 Totals
Forest health & restoration	\$3,036,333	\$3,036,333	\$1,110,450
Fuel mitigation	\$1,026,241	\$1,026,241	\$261,019
Mining assets	<b>\$141,</b> 020	\$141,020	\$163,416
River restoration	\$93,585	\$93,585	\$1,580,246
Program outreach	\$87,486	\$87,486	\$81,372
Environmental education program	\$17,913	\$17,913	\$12,255
Noxious weeds	\$12,719	\$12,719	\$8,338
Carbon/energy	\$10,869	\$10,869	\$13,630
Firefighting	\$5,035	\$5,035	\$14,650
Trails			\$95
Total program services	\$4,431,201	\$4,431,201	\$3,245,471

Supporting Services	Unrestricted	2013 Totals	2012 Totals
General and administrative	\$239,995	\$239,995	\$102,756
Financial development	\$17,793	\$17,793	\$35,198
Total Supporting Services	\$257,788	\$257,788	\$137,954
Total Expenses	\$4,688,989	\$4,688,989	\$3,383,425

# **Donors and Supporters**

Carrie Adair Marianne Ahl Steve Allard Gail Allen George Anthony Aria Foundation Adabelle Ashley-Foster Catherine Atwood City of Aurora Connor Baker Ronald Baker

Charles & Meredith Bleskan Boy Scouts of America **Bristol Brewery** Timothy & Lori Brossart Michael Bukowski

Bureau of Land Management

Sara Carlson

Cascade Volunteer Fire Department

The Catamount Center

Celctic Smoke

Centennial Waste & Sanitation District

Marie Chisholm Suzanne Chizmar City of Colorado Springs City of Manitou Springs Colorado Bar Association

Colorado Department of Agriculture CO Department of Natural Resources CO Dept of Public Health & Environment Colorado Department of Transportation Colorado State Forest Service Colorado Water Conservation Board

Stacey Cochran

Colorado Springs Utilities Crystal Peak Design LTD

Center of CO Water Conservation District

Carol & Donald Davis **Betty Davison** Mary Dawson

Brian, Kuma, & Brown Deboo

**Denver Foundation** Denver Water Doane College

**Douglas County Government** 

Helen Dyer Tim Edwards Leslie Eiler Barbara Ekarius El Paso County Elk Valley Estates

Evergreen Psychotherapy Center

Town of Fairplay FedEx Corporation Fred & Paige Fletcher Louis & Nell Fletcher

Mark Francis Chris Fuller

Pete Gallagher Mike Galoin Diane Gantt Jon Gibson Mel Gibson Casey Golubieski GoodSearch Green Mountain Falls Girl Scout Troop 256

Ann Hansen Michele Hefner Hewlett Packard Hillsdale Fund Inc. Hit Rentals J. Huff Margaret Hunt Emma Hutchens

Amy Jacobi Jefferson Co. Conservation District

Jefferson County

Kelly Hutchinson

JH Edmondson Foundation

Patricia Johnson Jara Johnson Marc Keenan Michael Kerek Barbara Kingsolver Bradley Klafehn Jason Kleinman Lvnn & June Koester Koscove Metal Leon Krain David Kwolek Jerry Ledlow Leighty Foundation

Cindy Levy Lexis Nexis

Lost Dutchman Resorts

Kevin Maddox Pam Maier

Allen & Linda Mattedi Arielle McCartney Mike Meadors Juan & Cheryl Mijares Mile High Society Project Mile High United Way Chet Milensky Tim Muldrew Network for Good

Natural Resources Conservation Service

Timothy Overholtzer Jerry Panek Park County BOCC

North Middle School

Howard Noble

Pikes Peak Community Foundation

Pinnacle West Art Ratkewicz

James & Phyllis Renninger Michael & Tammy Renninger

Ridgewood HOA

Rising Sun 4WD Club of Colorado

Octavius Robinson

Rocky Mountain Field Institute

Virginia Rutz M. Sailer

Schwab Charitable Fund

RyAnne Scott Peggy Setter John Shelton Alan Siegel Allison Simpson Cameron Sims Gail Smith

Robert & Niente Smith South Park Chamber

South Platte Enhancement Board

Sportsmen's Paradise Norm Stevens Kristine Stewart Lisa Stone

Swayback Ranch Fishing Club T Rowe Price Foundation

Teller County

Teller Park Conservation District

Pavel Tendetnik The Houghton Family The Kathy Loo Fund The Nature Conservancy Thrivent Financial for Lutherans

CB & Mary Todd

Trout Unlimited Cheyenne Chapter Trout Unlimited Cutthroat Chapter

Christy Uchida

United Methodist Church MO Conference Upper South Platte Conservation District

U.S. Forest Service - PSICC Ute Lakes Fishing Club Jonathan & Kim Vidaurri

Nancy Vogel Robert Vogel

Watershed Research & Training Center

Kim Wetzel S Kent & Karen Wiley Jim Winzenburg City of Woodland Park J. Woodward

Ron Wright **Xcel Energy Foundation** 

Fredrich & Mary Young

Park County Land & Water Trust

Thank you to all our donors, supporters, and volunteers! We couldn't do it without you!

# Resources

#### **CUSP Websites**

Main website http://uppersouthplatte.org/

Donate http://uppersouthplatte.org/donate.html
Volunteer http://uppersouthplatte.org/Volunteer/

Teller Energy http://www.tellerenergy.com/

Noxious Weeds http://www.uppersouthplatte-weeds.org

Divide Slash Site http://www.divideslashsite.com/ Fairplay Slash Site http://www.fairplayslash.com

Antero Ice Fishing Contest http://www.antero-icefishing-contest.com/

Woodland Park Healthy Forest Initiative http://www.wphfi.org/ Waldo Canyon Fire http://waldofire.org/

Upper South Platte Interactive http://search.uppersouthplatte.org/
Environmental Education Site http://learn.uppersouthplatte.org/

#### **Outside Sites of Interest**

Pike National Forest

Front Range Roundtable www.frontrangeroundtable.org
Watershed Wildfire Assessments www.jw-associates.org
Colorado State Forest Service csfs.colostate.edu
National Forest Foundation www.nationalforests.org
Governor's Energy Office www.rechargecolorado.com

fs.usda.gov/psicc

#### Contact CUSP

Mailing AddressPhysical AddressPO Box 72638000 Cherokee AveLake George, CO 80827Lake George, CO 80827

Phone Email cusp@uppersouthplatte.org

facebook.com/uppersouthplatte © @CUSP\_CO CUSP Coalition for the Upper South Platte