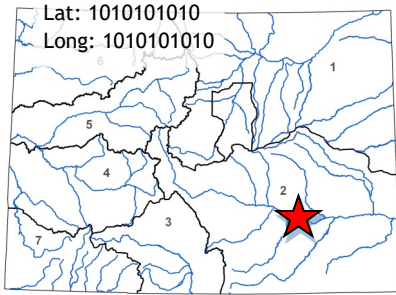




Water Plan Grant Application



L O C A T I O N	
County/Countries:	Boulder & Gilpin
Drainage Basin:	South Platte

D E T A I L S	
Total Project Cost:	\$156,896
Water Plan Grant Request:	\$86,800
Other CWCB Funding:	\$0
Other Funding Amount:	\$55,000
Applicant Match:	\$15,096
Project Type(s):	Other
Project Category:	Engagement & Innovation
Measurable Result:	5,000 Coloradoans Impacted by Engagement Activity

The Boulder Watershed Collective is a non-profit organization and states their mission is to protect and restore the health and function of the Boulder Creek Watershed, and support watershed-related collaboration statewide.

This project includes multiple tasks aimed at increasing public knowledge related to forest and watershed health and encouraging people to take action. A basic understanding of wildfire and forest ecology are integral parts of understanding and supporting forest management, including prescribed fire. As wildfire increases, the applicant states public and agencies must shift traditional mitigation and response efforts to more innovative methods of adapting to a fire prone landscape. The communication and education strategies proposed in their application are reflective of what they have learned from previous outreach efforts and strive to be engaging forms of visual storytelling through film, photography and experiential learning that targets private landowners on wildfire mitigation efforts.

Two restoration planning efforts are also included which strive to protect water resources for the City of Boulder, Town of Nederland and other Front Range municipalities by prioritizing forest restoration projects on abandoned mine lands and integrating meadow and forest restoration. The applicant anticipates engaging 5,000 Coloradoans with the primary target audience are those who reside in the Boulder Creek watershed.

This project is in line with watershed health goals and objectives to protect water quality, protect and restore watersheds critical to water infrastructure as well as meeting outreach and education goals. This proposal also helps to meet goals in the South Platte Basin Implementation Plan.

Funding Recommendation: Staff recommends funding up to \$86,800 from the Water Plan Engagement and Innovation Category.



Last Updated: May 2021

Colorado Water Conservation Board

Water Plan Grant Application

Instructions

To receive funding for a Water Plan Grant, applicant must demonstrate how the project, activity, or process (collectively referred to as “project”) funded by the CWCB will help meet the measurable objectives and critical actions in the Water Plan. Grant guidelines are available on the CWCB website.

If you have questions, please contact CWCB at (303) 866-3441 or email the following staff to assist you with applications in the following areas:

Water Storage & Supply Projects	Matthew.Stearns@state.co.us
Conservation, Land Use Planning	Kevin.Reidy@state.co.us
Engagement & Innovation Activities	Ben.Wade@state.co.us
Agricultural Projects	Alexander.Funk@state.co.us
Water Sharing & ATM Projects	Alexander.Funk@state.co.us
Environmental & Recreation Projects	Chris.Sturm@state.co.us

FINAL SUBMISSION: Submit all application materials in one email to waterplan.grants@state.co.us in the original file formats [Application (word); Statement of Work (word); Budget/Schedule (excel)]. Please do not combine documents. In the subject line, please include the funding category and name of the project.

Water Project Summary

Name of Applicant	Boulder Watershed Collective	
Name of Water Project	Planning and Visual Story Telling	
CWP Grant Request Amount		\$86,800
Other Funding Sources: <u>USFS</u>		\$25,000
Other Funding Sources : <u>Boulder County</u>		\$20,000
Other Funding Sources: <u>The Wonder Labs</u>		\$10,000
Applicant Funding Contribution		\$15,096
Total Project Cost		\$156,896



Last Updated: May 2021

Applicant & Grantee Information	
Name of Grantee(s): Boulder Watershed Collective	
Mailing Address: 1740 Fourmile Canyon Drive	
FEIN84-2674914	
Organization Contact: Maya MacHamer	
Position/Title: Director	
Email: maya@boulderwatershedcollective.org	
Phone: 303-817-2261	
Grant Management Contact: Catherine Price	
Position/Title: Program Manager	
Email: cat@boulderwatershedcollective.org	
Phone: 303-449-3333	
Name of Applicant (if different than grantee)	
Mailing Address	
Position/Title	
Email	
Phone	
Description of Grantee/Applicant	
Provide a brief description of the grantee's organization (100 words or less).	
<p>The Boulder Watershed Collective is a stakeholder-driven organization established to address watershed health, resiliency, and stewardship. Our mission is to protect and restore the health and function of the Boulder Creek Watershed, and support watershed-related collaboration statewide. As the urban areas grow and meet the mountain wilderness, it is crucial that we protect the resources present, both natural and human-made. Our vision is to be a stewardship-driven watershed organization that cultivates environmental leadership while creating community resiliency and vitality.</p>	



Last Updated: May 2021

Type of Eligible Entity (check one)	
	Public (Government): Municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.
	Public (Districts): Authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises.
	Private Incorporated: Mutual ditch companies, homeowners associations, corporations.
	Private Individuals, Partnerships, and Sole Proprietors: Private parties may be eligible for funding.
X	Non-governmental organizations (NGO): Organization that is not part of the government and is non-profit in nature.
	Covered Entity: As defined in Section 37-60-126 Colorado Revised Statutes .

Type of Water Project (check all that apply)	
	Study
	Construction
X	Other

Category of Water Project (check the primary category that applies and include relevant tasks)			
	<p>Water Storage & Supply - Projects that facilitate the development of additional storage, artificial aquifer recharge, and dredging existing reservoirs to restore the reservoirs' full decreed capacity, multi-beneficial projects, water sharing agreements, Alternative Transfer Methods, and those projects identified in basin implementation plans to address the water supply and demand gap. <i>Applicable Exhibit A Task(s):</i></p> <p>Note: For Water Sharing Agreements or ATM Projects - please include the supplemental application available on the CWCB's website.</p>		
	<p>Conservation and Land Use Planning - Activities and projects that implement long-term strategies for conservation, land use, water efficiency, and drought planning. <i>Applicable Exhibit A Task(s):</i></p>		
X	<p>Engagement & Innovation - Activities and projects that support water education, outreach, and innovation efforts. <i>Applicable Exhibit A Task(s): 1) Communication strategy development, 2) Visual Storytelling 3) Experiential Learning</i></p>		
	<p>Agricultural - Projects that provide technical assistance and improve agricultural efficiency. <i>Applicable Exhibit A Task(s):</i></p>		
	<p>Environmental & Recreation - Projects that promote watershed health, environmental health, and recreation. <i>Applicable Exhibit A Task(s):</i></p>		
	<table border="1"> <tr> <td>Other</td> <td>Explain:</td> </tr> </table>	Other	Explain:
Other	Explain:		



Last Updated: May 2021

Location of Water Project	
Please provide the general county and coordinates of the proposed project below in decimal degrees . The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Counties	Boulder and Gilpin Counties
Latitude	40.014984
Longitude	-105.270546

Water Project Overview
<p>Please provide a summary of the proposed water project (200 words or less). Include a description of the project and what the CWP Grant funding will be used for specifically (e.g., studies, permitting process, construction). Provide a description of the water supply source to be utilized or the water body affected by the project, where applicable. Include details such as acres under irrigation, types of crops irrigated, number of residential and commercial taps, length of ditch improvements, length of pipe installed, and area of habitat improvements, where applicable. If this project addresses multiple purposes or spans multiple basins, please explain.</p> <p>The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, Other Funding Sources/Amounts and Schedule.</p>
<p>This project includes multiple tasks aimed at increasing public knowledge related to forest and watershed health and inspiring people to take action. A basic understanding of wildfire and forest ecology are integral parts of understanding and supporting forest management, including prescribed fire. As catastrophic wildfire increases, the public and agencies must shift traditional mitigation and response efforts to more innovative methods of adapting to a fire prone landscape. The communication and education strategies proposed here are reflective of what the BWC has learned from previous outreach efforts and strive to be engaging forms of visual storytelling through film, photography and experiential learning.</p> <p>Two restoration planning efforts are also included which strive to protect water resources by prioritizing forest restoration projects on abandoned mine lands and integrating meadow and forest restoration.</p>



Last Updated: May 2021

Measurable Results	
To catalog measurable results achieved with the CWP Grant funds, please provide any of the following values as applicable:	
	New Storage Created (acre-feet)
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive
	Existing Storage Preserved or Enhanced (acre-feet)
	Length of Stream Restored or Protected (linear feet)
	Efficiency Savings (indicate acre-feet/year OR dollars/year)
	Area of Restored or Preserved Habitat (acres)
	Quantity of Water Shared through Alternative Transfer Mechanisms or water sharing agreement
	Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning
5,000	Number of Coloradans Impacted by Engagement Activity
	Other Explain:

Water Project Justification
<p>Provide a description of how this water project supports the goals of Colorado's Water Plan, the Analysis and Technical Update to the Water Plan, and the applicable Roundtable Basin Implementation Plan and Education Action Plan. The Applicant is required to reference specific needs, goals, themes, or Identified Projects and Processes (IPPs), including citations (e.g. document, chapters, sections, or page numbers).</p> <p>The proposed water project shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan Framework for State of Colorado Support for a Water Project (CWP, Section 9.4, pp. 9-43 to 9-44;)</p> <p>Chapter 7 of the Colorado Water Plan states that, "watershed health is a measure of ecosystem structure and function," and refers to the importance of headwater streams to downstream water users. Education and outreach contribute to long-term protection and improvement of watershed health and work to create a conservation ethic in those who live and recreate within the watershed. 7-4 states that "sediment is the most concerning non-point source pollutant our forested lands contribute." Forested watersheds are overly dense due to 100 years of fire suppression. This increases wildfire risk and severe fire behavior. Post-fire sediment yields cause significant impacts to drinking water quality and infrastructure for many years after a fire. Education and outreach strategies created by this project will work to decrease the likelihood of catastrophic wildfire within the watershed by enabling the public and private landowners to have a deeper understanding of forest and wildfire ecology and empowering them to take stewardship actions on their own land and support forest restoration at scale.</p> <p>The Basin Implementation Plans outline <i>long-term goals and strategies for cultivating a supportive and engaged citizenry</i>. Some of these include:</p> <ol style="list-style-type: none"> 1) Work closely with organizations that specialize in the facilitation of public education and outreach programs in order to leverage existing resources within each basin and increase overall impact (9-59 #6).



Last Updated: May 2021

- a. One of the primary roles of the Collective is to engage with communities in the watershed. This engagement has been supported by a previous Co Water Plan grant. That grant (expires 12/21) has catalyzed a strong partnership with the University of Colorado to produce Resilient Forests engagement programming including projects like [Take A Hike, webinars](#) (Home Wildfire Preparedness Workshop, 2020 Wildfire Debrief (300 people in attendance) and Water Resources and Wildfire) and upcoming Community Conversations to form a wildfire mitigation learning exchange between communities.
 - b. As a result of the previous Co Water Plan grant support successful outreach has occurred with numerous private landowners. This network has resulted in multiple large scale forest restoration project applications for State Forest Service grant funds. This current proposed outreach project is responsive to public input obtained over the past two years to provide active, hands on learning opportunities and to integrate Native stewardship practices into forest and watershed planning.
 - c. This project will work with partners like the USFS, Boulder County, the Ember Alliance and Trout Unlimited to combine and leverage funding sources to provide coordinated and effective outreach and engagement that builds broad support for forest management.
- 2) Enhance coordination and financial support that enable watershed groups and other grassroots organizations to effectively engage the public and increase participation (9-59 #7).
- a. The ability to leverage funding through multiple partners and grant sources is critical to the sustainability of the Collective. The benefits of long-term community engagement are often difficult to quantify. However, the benefits of the relationship building and knowledge generation is critical to the success of pro-active watershed stewardship.
 - b. Continued public engagement will enhance the understanding of watershed function and the connection between forests and water quality and quantity issues.

The South Platte Basin Implementation Plan (SPBIP) states that, “focused attention is needed to address threats associated with extensive tree mortality in the basin... [and] increased fire hazards.” (S-5-5)

- The Boulder Creek watershed is a drinking water source for numerous Front Range municipalities, including Denver Water. Multiple sub-watersheds are ranked highest priority for the composite values of watershed protection, forest conditions and living with fire in Colorado State Forest Service’s Forest Action Plan (See attached report). This project includes planning in two headwater areas that addresses increased fire hazards above critical drinking water infrastructure (Gross & Barker Reservoirs and the Nederland water intake).

The SPBIP also states that an, “intensive education, participation and outreach program designed to generate a lasting baseline of public awareness and support (6-18)” is needed.

- The communication strategy, visual storytelling and engagement activities support the goal to generate lasting public awareness and support. These tasks are an extension of existing engagement work and a continued effort by the Collective to refine communication strategies and be responsive to emerging community concerns and requests.

The Colorado Water Plan states that, “existing programs need to improve coordination to maximize their effectiveness. Collaboration creates new opportunities for water education, outreach, and public engagement activities.” (9-57)

- The Collective is coordinating with numerous partners by facilitating the Boulder County Forest Collaborative and with a wider Front Range network through the [Northern Colorado Fireshed Collaborative](#). For planning projects within Middle and South Boulder Creek headwater areas there are groups of partners that have specific interest in those areas. These collaborations each bring unique and varied opportunities to engage the public through the planning process.
 - Middle Boulder Creek: City of Boulder, Town of Nederland, USFS, Boulder County, private landowners.
 - South Boulder Creek: Gilpin County, Trout Unlimited, CSU-Extension Gilpin, Department of Reclamation Mining and Safety



Last Updated: May 2021

- The Forest Collaborative will work to amplify the work of many organizations. Education and outreach will be completed with CSFS and NRCS to assist their staff with local relationships. Education and outreach completed by FWC will also fill a capacity gap, as needed, for local fire districts who are primarily volunteer agencies.

The Water Plan lists topics that CWCB would like to be included in statewide education and outreach strategies (9-59). Many of these are encompassed in the Collective's outreach strategies such as:

- Colorado's water challenges, solutions, and the need to be adaptable to changing conditions.
- The connection between climate change and water.
- Water quality ("use a watershed approach for outreach and community engagement").

The Collective always takes a watershed approach and promotes systems thinking when discussing ecological impacts, natural disasters and planning for restoration.

The former ***Statewide Water Supply Initiative*** executive summary highlighted multiple areas supported by this project. These concepts still hold true and are integrated into the Water Plan.

- *Colorado has a growing population which has drastic impacts on water supply demands.* Increasing populations in the Wildland Urban Interface (WUI) increase potential incidences of human caused wildfire and can threaten clean water supplies for tens of thousands of downstream users. Educating landowners and recreators about wildfire risk and empowering them to take actions to prevent unwanted wildfire while also supporting prescribed fire as an ecological restoration tool is a critical strategy in protecting forested watersheds. Healthy forests replenish groundwater supplies and support non-consumptive uses which are critical components of Colorado's economy.
- *Collaboration is a critical component of addressing water quality and quantity issues.* Effective collaboration is often a direct result of successful education and outreach in many forms.
- *Costs related to water supply infrastructure are high and increasing.* Wildfire and post-fire sediment yields have significant impacts on water supply infrastructure including dredging reservoirs, exposed pipelines, damaged intakes and increased water treatment costs. Preventing large scale, high intensity wildfire is the best way to mitigate sediment related costs cost increases.
- Promoting education and stewardship of water resources is a critical component of "supporting the quality of life and economic prosperity of all Coloradoan's."

The ***Colorado Water Plan Analysis & Technical Update*** provides numerous data, modeling and tool additions and integrates climate change into planning models. While the Executive Summary repeatedly highlights the potential increase of drought and flooding, it does not explicitly discuss wildfire. It can be assumed that increased drought will lead to more high intensity wildfire which will lead to increased flooding. These cascading disasters will lead to increased stress to water supply infrastructure and water quality. The Technical Update planning scenarios of Cooperative Growth and Adaptive Innovation both highlight concepts supported by the engagement strategies outlined in this grant request:

- Cooperative Growth: *Environmental stewardship becomes the norm. Broad alliances form to provide for more integrated and efficient planning and development.... This dynamic reinforces the social value of widespread water efficiency and increased environmental protection.*
- Adaptive Innovation: *Social attitudes shift to a shared responsibility to address problems.*

The Collective strives to realize these goals of collective stewardship and responsibility. Robust communication strategies that prioritize visual storytelling and experiential learning support the continued development of participatory communities that value stewardship and shared responsibility as critical mechanisms of watershed protection.

Related Studies



Last Updated: May 2021

Please provide a list of any related studies, including if the water project is complementary to or assists in the implementation of other CWCB programs.

[Colorado State Forest Action Plan](#)

- In-depth analysis of forest trends with watershed prioritization and guidance for improving forest health.

Potential Operational Delineations (PODs) for the Arapaho and Roosevelt National Forest

- PODs are spatial units defined by potential control features, such as roads and ridge tops, within which relevant information on forest conditions, ecology, and fire potential can be summarized. PODs combine local fire knowledge with advanced spatial analytics to help managers develop a common understanding of risks, management opportunities, and desired outcomes to determine fire management and pre-fire planning objectives.

[Saint Vrain Wildfire/Watershed Assessment](#) (2010)

- This assessment was designed to identify and prioritize watersheds based on their hazards of generating flooding, debris flows and increased sediment yields following wildfire that could have impacts on water supplies.

Source Water Protection Plans: City of Boulder (2017), Town of Nederland (2014).

- The Source Water Protection Plans highlight wildfire as one of the greatest potential sources of drinking water contamination.

[Saint Vrain Watershed Plan](#) (2015)

- The Watershed Plan provides helpful background on geology, soils, hydrology and other watershed characteristics that impact water supply, watershed health and water quality.

[Boulder Watershed Collective Forest Resiliency Outreach and Education Plan](#) (2020)

Previous CWCB Grants, Loans or Other Funding

List all previous or current CWCB grants (including WSRF) awarded to both the Applicant and Grantee. Include: 1) Applicant name; 2) Water activity name; 3) Approving RT(s); 4) CWCB board meeting date; 5) Contract number or purchase order; 6) Percentage of other CWCB funding for your overall project.

- 1) Fourmile Watershed Coalition/Four Mile Fire Protection District (The Boulder Watershed Collective was formerly the Fourmile Watershed Coalition).
- 2) EWP Stream Restoration Projects, Monitoring and Adaptive Management, Northern Front Range Forestry Network, Water Quality Sampling in the Boulder Creek Watershed, Debris Flow Early Warning System.
- 3) South Platte Basin RT
- 4) September 18, 2019, January 28, 2020.
- 5) Projects and contract numbers include:
 - Ingram Gulch- EWP match (CTGG1 2018*661), EWP TA design: (POGG PDAA 201700000775).
 - Wall Street- EWP match (CTGG1 12017*1819 CMS#101032)
 - Fire Station Pond- EWP match (POGG1 PDAA 201700000935(SB-179))
 - Monitoring and Adaptive Management (PDAA, 201900002117).
 - Northern Front Range Forestry Network (POGG1 PDAA, 202000002417).
 - Water Quality Sampling in the Boulder Creek Watershed (POGG1 2020-3085).
 - Debris Flow Early Warning System (POGG1 2021-2179).
 - Ingram Gulch Mine Waste Project (POGG1 2021-2180).
 - Tolland Ranch (POGG1 2021-2317).



Last Updated: May 2021

Taxpayer Bill of Rights	
The Taxpayer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect your application.	
The Boulder Watershed Collective is not aware of any issues that would affect this application.	

Submittal Checklist	
x	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract .
x	Statement of Work ⁽¹⁾
x	Budget & Schedule ⁽¹⁾
	Engineer's statement of probable cost (projects over \$100,000)
x	Letters of Matching and/or Pending 3 rd Party Commitments ⁽¹⁾
x	Map (if applicable) ⁽¹⁾
	Photos/Drawings/Reports
x	Letters of Support (Optional)
	Certificate of Insurance (General, Auto, & Workers' Comp.) ⁽²⁾
	Certificate of Good Standing with Colorado Secretary of State ⁽²⁾
	W-9 ⁽²⁾
	Independent Contractor Form ⁽²⁾ (If applicant is individual, not company/organization)
Water Sharing Agreements and Alternative Transfer Methods ONLY	
	Water Sharing Agreements and Alternative Transfer Methods Supplemental Application ⁽¹⁾

(1) Required with application.

(2) Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.

Last Updated: May 2021

ENGAGEMENT & INNOVATION GRANT FUND SUPPLEMENTAL APPLICATION

Introduction & Purpose

Colorado’s Water Plan calls for an outreach, education, public engagement, and innovation grant fund in Chapter 9.5.

The overall goal of the Engagement & Innovation Grant Fund is to enhance Colorado’s water communication, outreach, education, and public engagement efforts; advance Colorado’s water supply planning process; and support a statewide water innovation ecosystem.

The grant fund aims to engage the public to promote well-informed community discourse regarding balanced water solutions statewide. The grant fund aims to support water innovation in Colorado. The grant fund prioritizes measuring and evaluating the success of programs, projects, and initiatives. The grant fund prioritizes efforts designed using research, data, and best practices. The grant fund prioritizes a commitment to collaboration and community engagement. The grant fund will support local and statewide efforts.

The grant fund is divided into two tracks: engagement and innovation. The Engagement Track supports education, outreach, communication, and public participation efforts related to water. The Innovation Track supports efforts that advance the water innovation ecosystem in Colorado.

Application Questions

*The grant fund request is referred to as “project” in this application.

Overview (answer for both tracks)
In a few sentences, what is the overall goal of this project? How does it achieve the stated purpose of this grant fund (above)?
The goal of this project is to increase watershed stewardship in forested headwater areas. The project supports the intended purpose of the grant fund by developing communication strategies that promote education and engagement through visual storytelling and experiential learning. Engagement activities will highlight the inter-connectedness of forests and watersheds and ways in which forest and wildfire ecology support water quality and quantity.
Who is/are the target audience(s)? How will you reach them? How will you involve the community?
The primary target audience is those living within the Boulder Creek watershed (forested and urban areas). The secondary target audience is those living along the Front Range of Colorado. All residents in Front Range watersheds are affected by and contributing to changing watershed conditions due to climate change, wildfires, and development. With this in mind, all residents should be empowered to better understand forest and wildfire ecology, their relationship to watersheds and better understand their own role in supporting and promoting forest management that includes prescribed fire. The target audience will be reached through multiple digital methods (social media, e-newsletter) and through distribution by a wide network of other partners. The community will be invited to participate in workshops, view films and the Gold Hill community will participate in the development of a documentary film about their community experience in preparing to live with wildfire.
Describe how the project is collaborative or engages a diverse group of stakeholders. Who are the partners in the project? Do you have other funding partners or sources?



Last Updated: May 2021

This project and the individual tasks are a collaboration between numerous and varied partners. The multiple forms of engagement proposed in this application are intended to appeal to a diverse group of stakeholders. They are also intended to be applicable to those living in forested areas that need to manage their own lands or those living in urban or plains areas that are affected by wildfire smoke (unintended or prescribed fire). Films and the Photovoice exhibition also have the ability to reach a diverse audience that may feel like they are not affected by these issues.

Funding partners include:

- The Arapahoe and Roosevelt National Forest (\$25,000- cash, awarded)
- Boulder County (\$20,000-cash, awarded)
- The Wonder Labs (\$10,000- cash, awarded)
- Boulder County Community Foundation (\$2,496- cash, awarded)
- City of Boulder Human Rights Commission (\$1,300- cash, awarded)
- City of Boulder- Middle Boulder Creek planning (\$5,000-in-kind)
- The Ember Alliance (\$5,000- in-kind)
- Trout Unlimited (\$1,300- in-kind)

Describe how you plan to measure and evaluate the success and impact of the project?

Once films are completed and housed on a website we can evaluate success through website analytics. This will help us understand if viewing surges after a specific type of promotion (newsletter, webinar) and inform future methods of distribution. Short survey's will be distributed after workshops to evaluate success and to inform future planning.

What research, evidence, and data support your project?

There is a significant body of evidence that shows that community based, collaborative outreach and planning can create communities more resilient to wildfire. As communities become better adapted to living with fire an effect can be extrapolated toward the protection of water resources. A deeper understanding of watershed function will help the public better steward these resources through direct action or support of management activities.

The Fire Adapted Communities Learning Network has a group of partners (Nature Conservancy, US Forest Service and agencies in the Department of the Interior among others) under the acronym PREFACT- Promoting Ecosystem Resiliency and Fire Adapted Communities Together. These partners, "work together to increase the capacity and social capital needed to make ecosystems and communities more resilient to wildfire. PREFACT supports effective learning networks, as well as training, capacity-building and targeted collaborative projects on the ground." This model of collaborative planning and jointly implementing projects, coupled with education and outreach has proven to be very effective. The Fire Adapted Learning Network reports that 40 states have engaged 1500 partners and leveraged nearly 80 million dollars in restoration of forests and grasslands.

Sarah McCaffery, in her 2015 article published in Current Forestry Reports, discusses the importance of social interactions and place attachment in shaping attitudes toward wildfire and preparedness. Her evaluation of wildfire in the US and Australia implicates the need to take local knowledge and context into account. She states that, "efforts that facilitate development of relationships, within communities and between community members and fire personnel, can contribute to increased preparedness at the individual and community level by facilitating information exchange and helping to build a sense of community." In the article, Wildfire Preparedness, Community Cohesion and Social-Ecological Systems,



Last Updated: May 2021

Tim Prior and Christine Erikson demonstrate that, “social cohesion, particularly community characteristics like ‘sense of community’ and ‘collective problem solving’, are community-based resources that support both the adoption of mechanical preparations, and the development of cognitive abilities and capacities that reduce vulnerability and enhance resilience to wildfire.”

There is significant evidence that visual forms of communication are more effective than verbal communication only. When we take in visual information alongside verbal information, our brain’s ability to encode it to long-term memory is significantly enhanced. One University of Cambridge study showed that combining visuals with text increased learning by 89 percent over text-only information. Shifting communication strategies to include a greater percentage of visual communication has the potential to create greater levels of behavior change.

The Nature Conservancy conducted a study in California to examine whether forest restoration projects affected water supply. Their analysis suggests that, “if the current scale of forest restoration is increased three-fold, there could be up to a 6 percent increase in the mean annual streamflow for individual watersheds.” More research should be conducted in this area to draw fire and water practitioners closer together in restoration efforts.

1. McCaffrey, S. Curr Forestry Rep (2015) 1: 81. <https://doi.org/10.1007/s40725-015-0015-7>
2. Prior, T. Global Environmental Change (2013) 23:6
<https://www.sciencedirect.com/science/article/abs/pii/S0959378013001684?via%3Dihub>
3. Podolak, K., D. Edelson, S. Kruse, B. Aylward, M. Zimring, and N. Wobbrock. 2015. Estimating the Water Supply Benefits from Forest Restoration in the Northern Sierra Nevada. An unpublished report of The Nature Conservancy prepared with Ecosystem Economics. San Francisco, CA

Describe potential short- and long-term challenges with this project.

Potential short term challenges might include difficulty finding Native stewardship leaders for the workshop who willing to travel to Boulder while Covid is not fully resolved. Long-term challenges could include winter weather that is not suitable to burn piles constructed in the pile building workshops. While burning piles is not part of this proposal it is not ideal to have the piles sit on the landscape for prolonged periods of time. This is a potential issue with all forest restoration projects and not unique to this project.

Please fill out the applicable questions for either the Engagement Track or Innovation Track, unless your project contains elements in both tracks. If a question does not relate to your project, just leave it blank. Please answer each question that relates to your project. Please reference the relevant documents and use chapters and page numbers (Colorado’s Water Plan, Basin Implementation Plan, PEPO Education Action Plan, etc.).

Engagement Track

Describe how the project achieves the education, outreach, and public engagement measurable objective set forth in Colorado’s Water Plan to “significantly improve the level of public awareness and engagement regarding water issues statewide by 2020, as determined by water awareness surveys.”

Focusing directly on education and outreach is the best way to effect public awareness and measure changes in human behavior and understanding. This project accomplishes this by working specifically to improve public awareness about forest health, wildfire issues and their relationship to Colorado water issues. It is only possible to understand what a healthy forest is by engaging in a deeper conversation about what a watershed is, what are watershed functions and how forests, soils and streams are related to one another. Through outreach this process of learning will occur.



Last Updated: May 2021

The Water Plan and the SPBIP (S.3.6 & 1-28) both highlight the need to “protect and enhance river based environments and recreational opportunities that support local and statewide economies and are important for the enjoyment of current and future generations of Coloradans (WP 10-12). The mountain areas in the Boulder Creek watershed are highly valued for recreational activities and are a critical component of the local economy. Using education and outreach to prevent wildfire and increase knowledge about forest and watershed health is the best way to preserve these forested watersheds. Mobilizing the public through the recreational community is extremely effective in Boulder and Gilpin counties.

The SPBIP provides a recommendation to, “design and implement an intensive education, participation and outreach program designed to generate a lasting baseline of public awareness and support (S.5.9).” This project will assist the SPBRT in accomplishing this goal and the Water Plan goal of increasing public awareness through targeted outreach and educational programs. Strategic preparedness, response and resilience to climate change and natural disasters is identified in the Colorado Water Plan (10-14) and Colorado Resiliency Framework as a critical action. This project works to address this from multiple perspectives: collaborative restoration planning, visual storytelling and participatory education with hands on workshops.

In Chapter 7 The Water Plan identifies watershed coalitions as productive organizations to create stakeholder driven watershed protection projects. The development of forest health partnerships (7-7) has demonstrated the ability to effectively leverage funds, impact forest health and water supply and engage the public in conversation and action.

Describe how the project achieves the other measurable objectives and critical goals and actions laid out in Colorado’s Water Plan around the supply and demand gap; conservation; land use; agriculture; storage; watershed health, environment, and recreation; funding; and additional.

Chapter 7 of the Colorado Water Plan states that, “watershed health is a measure of ecosystem structure and function,” and refers to the importance of headwater streams to downstream water users. Education and outreach assist in long term improvements of watershed health and work to create a conservation ethic in those who live and recreate within the watershed. 7-4 states that “sediment is the most concerning non-point source pollutant our forested lands contribute.” Forested watersheds are overly dense due to 100 years of fire suppression. This increases wildfire risk and severe fire behavior. Post-fire sediment yields cause significant impacts to drinking water quality and infrastructure for many years after a fire. Education and outreach opportunities created by this project will work to decrease the likelihood of severe wildfire in certain communities and increase public support and social license for more robust management strategies like prescribed fire.

The Colorado Water Plan’s Critical Action Plan addresses both watershed health and environment and education and outreach goals. This project is multi-objective and will support several areas within the Critical Action Plan.

Describe how the project achieves the education, outreach, and public engagement goals set forth in the applicable Basin Implementation Plan(s).

Section 4.1.3 in the SPBIP lists suggested Education, Participation and Outreach activities for 2015 and beyond. These include leveraging existing Basin resources like watershed coalitions, leveraging state efforts like the Wildfire/Watershed Assessment Group.

Specific watershed protection projects are that can be affected by public engagement goals include:
4.2.1.1- 4.1.1.3. Wildfire Mitigation and Treatment, Insect and Disease and Climate Change awareness. This project directly engages the public on these issues through education and outreach and will provide recommendations for direct actions that can be taken.
4.2.3 #6 Water Quality. The degradation of forested watersheds can result in increased wildfire and non-point source pollution having profound impacts on water quality. Preventing severe wildfire is the best way to minimize severe post-fire sediment issues.



Last Updated: May 2021

<p>4.5.2.3 Stewardship. This section specifically lists protecting streams and riparian areas. The protection of these areas is interdependent with healthy forests. A deeper understanding of the connection between forests and water resources will be highlighted in this project. The public workshops for slash pile building and Native stewardship will promote direct stewardship actions that can be taken and their relationship to watershed health.</p> <p>4.6.3 Environmental and Recreational Impacts and Benefits from Multi-Purpose Projects. BWC has implemented several multi-purpose stream restoration projects that incorporate fish habitat, water quality improvements and asset protection. This project is multi-purpose by:</p> <ul style="list-style-type: none"> • Protecting environmental and recreational resources through engagement and stewardship. • Engaging local communities in issues that affect them, namely watershed and forest health and wildfire risk. • Engaging local agencies in collaborative planning to leverage funding resources and expertise. • Connecting the public to available resources and assisting them in converting knowledge to action. • Protecting headwater streams and water quality by addressing upland forest issues.
<p>Describe how the project achieves the basin roundtable’s PEPO Education Action Plans.</p>
<p>The South Platte EAP is focused on educating and engaging the public within the basin about water issues in a collaborative, dialogue-oriented fashion that will lead to solutions-oriented actions related to Colorado’s water supply issues. This project will support this goal by focusing on integrating concepts listed below. This focus will “generate a lasting baseline of public awareness and support”.</p> <ul style="list-style-type: none"> • Increasing partnerships and awareness of SPBRT values through engagement that highlights multiple ecosystems within the watershed. • Include recreational and environmental interest groups in educational opportunities. • Provide survey data to support measurable results. • Develop education and engagement opportunities that are similar to tasks and objectives listed in the Education Action Plan. • Provide outreach and education that are directly relate to solutions-based actions such as forest restoration and wildfire mitigation. • Create a foundation of watershed knowledge that enables the public to better participate in future local and statewide land use and water planning efforts.

Innovation Track
<p>Describe how the project enhances water innovation efforts and supports a water innovation ecosystem in Colorado.</p>
Empty space for response
<p>Describe how the project engages/leverages Colorado’s innovation community to help solve our state’s water challenges.</p>



Last Updated: May 2021

Describe how the project helps advance or develop a solution to a water need identified through TAP-IN and other water innovation challenges. What is the problem/need/challenge?
Describe how this project impacts current or emerging trends; technologies; clusters, sectors, or groups in water innovation.



Last Updated: May 2021

Colorado Water Conservation Board
Water Plan Grant - Exhibit A

Statement Of Work	
Date:	6/28/2021
Name of Grantee:	Boulder Watershed Collective
Name of Water Project:	Planning and Visual Story Telling
Funding Source:	Colorado Water Plan
Water Project Overview:	
<p>This project includes multiple tasks aimed at increasing public knowledge related to forest and watershed health and inspiring people to take action. A basic understanding of wildfire and forest ecology are integral parts of understanding and supporting forest management, including prescribed fire. As catastrophic wildfire increases, the public and agencies must shift traditional mitigation and response efforts to more innovative methods of adapting to a fire prone landscape. The communication and education strategies proposed here are reflective of what the BWC has learned from previous outreach efforts and strive to be engaging forms of visual storytelling through film, photography and experiential learning.</p> <p>Two restoration planning efforts are also included which strive to protect water resources by prioritizing forest restoration projects on abandoned mine lands and integrating meadow and forest restoration.</p>	
Project Objectives:	
<ol style="list-style-type: none"> 1. Increase public knowledge related to forest and wildfire ecology and their relationship to watershed health. 2. Improve BWC internal capacity for effective communication and outreach. 3. Improve the quality and quantity of public engagement related to wildfire and forest management through innovative, visual techniques. 4. Be responsive to community interests through facilitation of experiential learning opportunities. 5. Increase the pace and scale of forest restoration through collaborative planning. 	



Last Updated: May 2021

Tasks
Task 1 – Communication Strategy Development
Description of Task:
<p>To be most effective BWC needs assistance in formalizing a communication strategy. This strategy will build upon the draft Resilient Forests Outreach and Education Plan. The communication strategy will include a full audit of the BWC brand, the target audience we would like to reach, key touchpoints, and messaging strategies. This project will focus on the use of a new e-newsletter, lead magnets that can attract signups, and how to prime the target audience for action.</p> <p>Effective communication strategies are critically important for the organization. The expansion from the Fourmile Watershed Coalition to the Boulder Watershed Collective has diversified and magnified potential stakeholders. In order to reach new audiences and maximize the effectiveness of outreach and engagement activities the BWC must be more strategic with its communication types and methods (including visual storytelling).</p>
Method/Procedure:
<ol style="list-style-type: none">1. Hire a communication consultant2. Engage the BWC Communications and Education Coordinator in the planning process with the consultant.3. Develop an E-newsletter and social media communications strategy that can support Task 2 & 3, as well as other BWC projects.
Deliverable:
The deliverable is a comprehensive brand and communications guidebook in PDF form.

Last Updated: May 2021

Tasks
<p>Task 2 – Visual Storytelling</p> <p>Description of Task:</p> <p>Working through flood recovery highlighted that often decisions and actions are based more on emotional reactions than rational thought. Visuals are the most effective communications vehicles for evoking emotion and getting people to take action. The proposed tasks strive to combine the art of communications strategy with the science of human behavior.</p> <p>BWC intends on using the communication strategy developed in Task 1 to support three visual storytelling projects. These projects include:</p> <ol style="list-style-type: none"> <p><u>Prescribed fire short films:</u></p> <p>While there is significant momentum right now to increase the pace and scale of forest restoration projects, social license in Colorado still struggles in supporting prescribed fire as a restoration tool. The short films (5-7 minutes) will cover different aspects of prescribed fire from ecology to planning and implementation to what happened when a fire escapes. While other videos do exist in areas where prescribed fire is more common (like the southeast US), we know that local communities respond better to recognizable landscapes and local context. These short films will be conceptualized as educational films with strong emotional narratives and developed with an array of local partners. Initial partners include the Ember Alliance, Big Thompson Coalition and Boulder County.</p> <p><u>Initial footage for a documentary film:</u></p> <p>The BWC and partners have received \$400,000 in local and federal funds to conduct over 100 acres of forest restoration adjacent to the town of Gold Hill. This project was initiated by \$4,200 raised in a local community trail race in 2019 and leveraged for additional grant funds. Since then, the Gold Hill community has rallied around building additional forest restoration projects, is pursuing initiatives for community-based wildfire preparedness and is paving the way for other communities to become empowered to protect themselves and the landscapes they love from catastrophic wildfire. The community and agencies involved want to create a documentary film about the process of planning and implementing community-driven, multi-objective forest restoration and wildfire mitigation projects. This project will capture initial footage of the community planning and beginning of the forest thinning in summer 2021. Other grant funds will be pursued to support next phases of the documentary.</p> <p><u>Photovoice:</u></p> <p>Photovoice pairs pictures with words to achieve the highest impact. The pictures and text are used to reinforce one another. Photovoice engages people who do not usually have a say in the decisions that affect their daily lives as a way for them to deepen their understanding of an issue. The goal of Photovoice is to support the self-empowerment of participants by providing them with the opportunity to express their experiences and “speak” through photographs about community issues, connect with others in their community, and advocate for change (Nova Scotia Participatory Food Costing Project). In a wildfire context, people can document social values associated with forests. This can contribute to the larger conversation with agencies when developing and implementing landscape-scale forest restoration projects.</p> <p>Method/Procedure:</p>



Last Updated: May 2021

<ol style="list-style-type: none"> 1. Hire a consultant/filmmaker. 2. Pre-planning with partners and consultant for films or photovoice project. This task will include building shotlists, developing narratives, organizing logistics and general project planning. 3. Filming. This task will include interview days for subject matter experts and/or local characters who have compelling narratives surrounding the subject. The task supports multiple days in the field collecting footage at forest restoration project sites. 4. Editing: Multiple days for the filmmaker to organize footage, transcribe interviews, find music, and build drafts of the films. 5. Curating photovoice exhibition.
<p>Deliverable:</p> <ol style="list-style-type: none"> 1. Three short films related to forest restoration and wildfire ecology and particularly prescribed fire. The films will be widely shared and available to the public. 2. Initial footage for a documentary that chronicles the multi-year, community experience of planning and implementing a large-scale forest restoration project. 3. Exhibition of the photovoice project sharing community photographs and stories.

Tasks
<p>Task 3 – Experiential Learning</p>
<p>Description of Task:</p> <p>The BWC and partners have hosted and participated in numerous watershed and forest related outreach and engagement projects over the past couple of years. There are two common themes that have been repeatedly raised in Q & A sessions and informal conversations. These include:</p> <ol style="list-style-type: none"> 1. How are agencies integrating Native stewardship practices and Traditional Ecological Knowledge into forest health planning? 2. What innovative methods are being used to expand beyond the traditional or 'business as usual' fire mitigation and response methods? New methods are needed to match the scale of the wildfire issue. <p>In response to these public requests the BWC proposes two experiential learning activities:</p> <ol style="list-style-type: none"> 1. In partnership with the CU Center for Native American and Indigenous Studies (CNAIS) and Right Relationship Boulder we will hold a Stewardship workshop at an outdoor location during 2021 Indigenous People’s Day celebrations in October. The goal of the workshop is to highlight Indigenous relationships with the landscape and how that relationship creates and supports stewardship practices. <p>A Native grad student from CNAIS will be hired to assist in planning the workshop and coordinating with knowledgeable tribal members who can contribute to workshop facilitation. An honorarium will be provided to those who facilitate the workshop or must travel from reservations to participate. The City of Boulder Human Rights Commission has awarded \$1,300 to the project.</p>



Last Updated: May 2021

2. In partnership with the [Ember Alliance](#) we will host two burn pile building workshops in fall 2021. The Ember Alliance will fund pile burning workshops in winter 2022 under appropriate conditions. The goal of the workshops is to empower private landowners to safely manage their forested lands and create a deeper understanding of forest ecology.

The workshops will be held within the forested Boulder Creek watershed on private land. Participation will be open to the public and capped at 30-40 people. Participants will learn pile construction techniques that promote safe and efficient pile burning. Participants will learn this forest management technique in the context of forest and wildfire ecology and how it can enhance watershed health.

Method/Procedure:

1. Project planning with partners. This includes all logistics, locations, advertising and recruiting participants and obtaining supplies.
2. Host workshops.
3. Document workshops through video or photography.

Deliverable:

The deliverable will be a short report documenting learning and film or photography associated with the workshops.

Tasks

Task 4 – Restoration Planning

Description of Task:



Last Updated: May 2021

This task includes conceptual planning for forest meadow restoration at two headwater locations: Middle and South Boulder Creek:

1. Middle Boulder Creek: The City of Boulder is has hired a consultant and is currently spearheading a group of partners (USFS, Boulder County, Nederland, BWC) for forest restoration planning above the Town of Nederland (see map). This area is a critical source water area for both Nederland and the City of Boulder. Within the planning area there are also areas that would benefit from meadow enhancement, as identified in [Sediment Storage Study for Disaster Planning](#). Meadows in this area were used as gravel pits for the development of Gross Reservoir. A consultant will be hired to develop conceptual meadow designs in concert with forest restoration planning. The goal is to implement forest and meadow restoration as one project in the future.
2. South Boulder Creek: Forest restoration is in initial planning stages at Tolland Ranch (see map). Downstream of this area in Gamble Gulch, significant mining occurred in the late 1800's. The area has a draining adit that contributes to impairments in South Boulder Creek. Additionally, there are many mine waste piles that are currently vegetated with grasses and trees. If this area experiences high intensity wildfire, water impairments could increase with contaminated sediments being mobilized into streams. South Boulder Creek is part of Denver Water's drinking water system.

In partnership with Trout Unlimited's Abandoned Mine Lands Team, planning in this area will include an assessment of mine impacted lands, outreach to landowners, collaboration with partners and the development of conceptual planning for forest restoration projects.

Method/Procedure:

1. Coordinate with partners
2. Review existing plans
3. Outreach with landowners
4. Assess existing conditions
5. Develop conceptual plans

Deliverable:

Middle Boulder Creek deliverable: Conceptual meadow restoration design that can be implemented in conjunction with forest restoration project.
South Boulder Creek deliverable: Conceptual forest restoration unit delineations and treatment design.

Budget and Schedule

Last Updated: May 2021

This Statement of Work shall be accompanied by a combined Budget and Schedule that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format.

Reporting Requirements

Progress Reports: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Report: At completion of the project, the applicant shall provide the CWCB a Final Report on the applicant's letterhead that:

- Summarizes the project and how the project was completed.
- Describes any obstacles encountered, and how these obstacles were overcome.
- Confirms that all matching commitments have been fulfilled.
- Includes photographs, summaries of meetings and engineering reports/designs.

The CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

Payment

Payment will be made based on actual expenditures and must include invoices for all work completed. The request for payment must include a description of the work accomplished by task, an estimate of the percent completion for individual tasks and the entire Project in relation to the percentage of budget spent, identification of any major issues, and proposed or implemented corrective actions.

Costs incurred prior to the effective date of this contract are not reimbursable. The last 10% of the entire grant will be paid out when the final deliverable has been received. All products, data and information developed as a result of this contract must be provided to as part of the project documentation.

Performance Measures

Performance measures for this contract shall include the following:

(a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum in-kind contributions (if applicable) per the budget in Exhibit C. Per Water Plan Grant Guidelines, the CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

(b) Accountability: Per Water Plan Grant Guidelines full documentation of project progress must be submitted with each invoice for reimbursement. Grantee must confirm that all grant conditions have been complied with on each invoice. In addition, per Water Plan Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment.

(c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary.



COLORADO

Colorado Water
Conservation Board

Department of Natural Resources

Last Updated: May 2021

(d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.



COLORADO
Colorado Water
Conservation Board
Department of Natural Resources

Colorado Water Conservation Board

Water Plan Grant - Exhibit C Budget and Schedule

Prepared Date:

Name of Applicant:

Name of Water Project:

Project Start Date:

Project End Date:

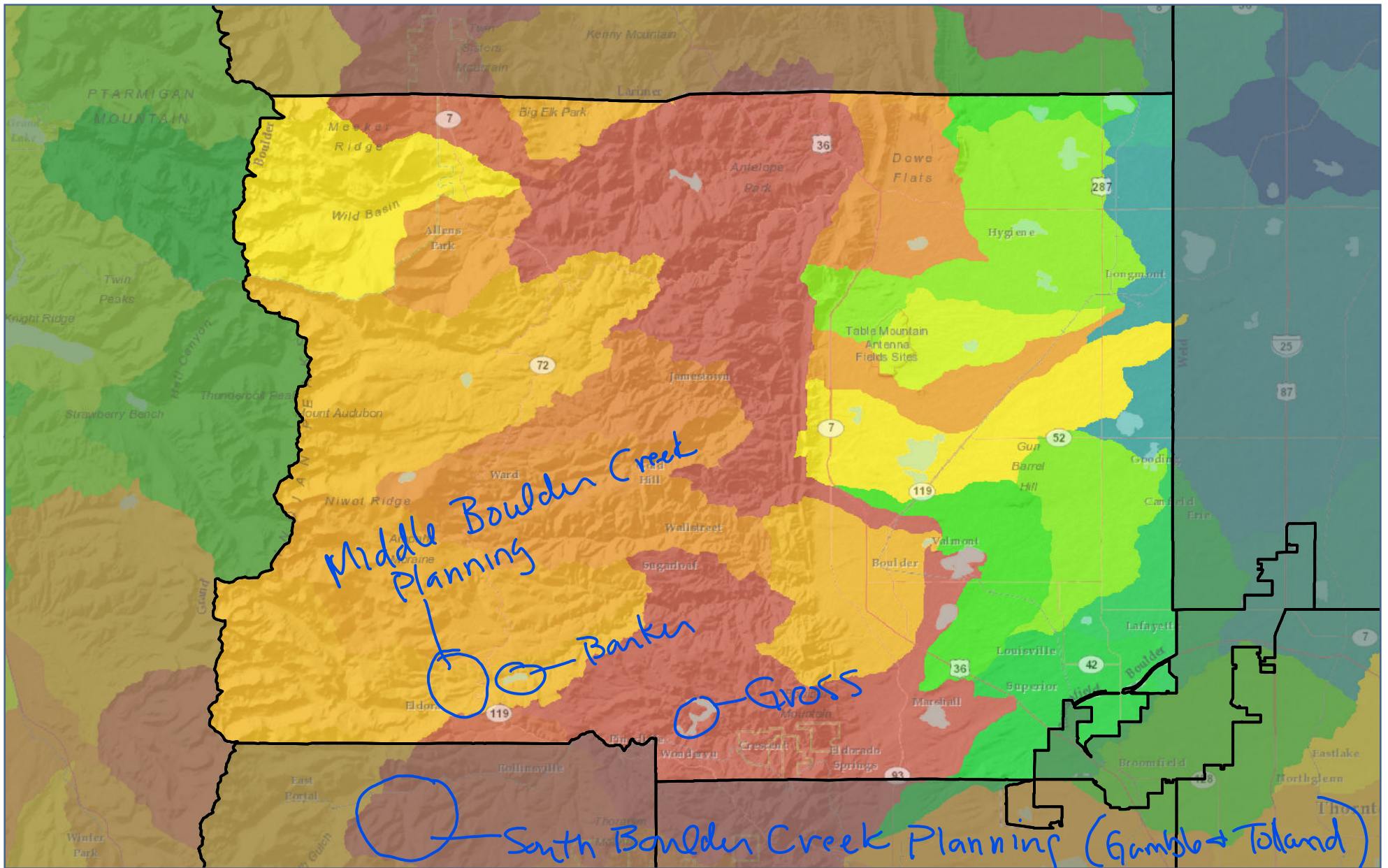
Task No.	Task Description	Task Start Date	Task End Date	Grant Funding Request	Match Funding	Total
1	Communication Strategy Development	Oct 1 2021	Jan 1 2021	5,900	5,000	\$10,900
2	Visual Storytelling	Oct 1 2021	June 30 2022	\$45,000	\$38,796	\$83,796
3	Experiential Learning Workshops	Oct 1 2021	June 30 2022	\$15,900	\$6,300	\$15,900
4	Restoration Planning	Oct 1 2021	June 30 2022	\$20,000	\$20,000	\$20,000
Total				\$86,800	\$70,096	\$156,896



Letter of Match Commitment

There are multiple funding sources matching this grant request. They include:

1. Arapahoe Roosevelt National Forest allocated \$25,000 administered through the Coalition for the Poudre River Watershed.
 - a. Funds are awarded. A contract is available for proof of match.
2. Boulder County has contributed \$20,000.
 - a. Funds are awarded. An MOU is available as proof of match.
3. The Wonder Labs awarded \$10,000
 - a. Funds are awarded. \$5,000 has been received and an additional \$5,000 will be deposited at a later date.
4. The Community Foundation of Boulder County awarded \$2,496.
 - a. The funds have been deposited in our account.
5. The City of Boulder Human Rights Commission awarded \$1,300 for the Stewardship Workshop.
 - a. Email award letter is available.
6. The Ember Alliance is providing \$5,000 in-kind match
7. The City of Boulder Middle Boulder Creek Planning is \$5,000 in-kind match
8. Trout Unlimited's Abandoned Mine Lands Team is providing \$1,300 in-kind match.

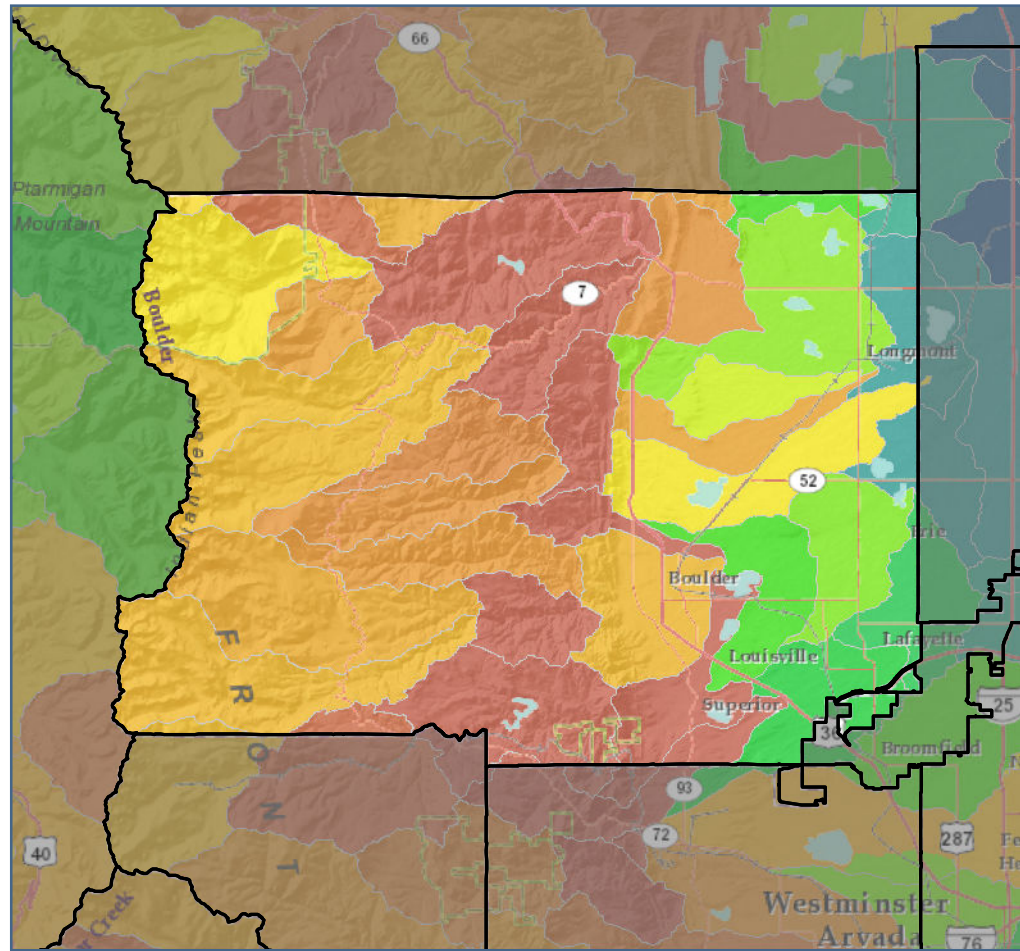


For more information, please visit:
cfs.colostate.edu/forest-action-plan

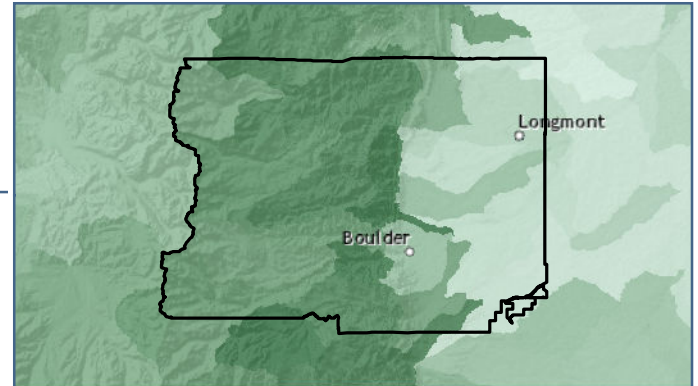


Composite Map

Boulder County

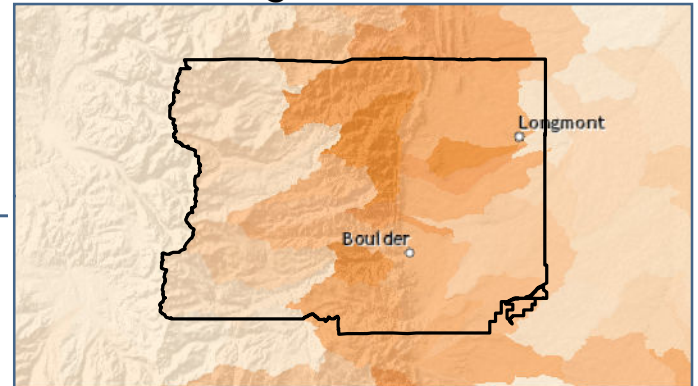


Forest Conditions



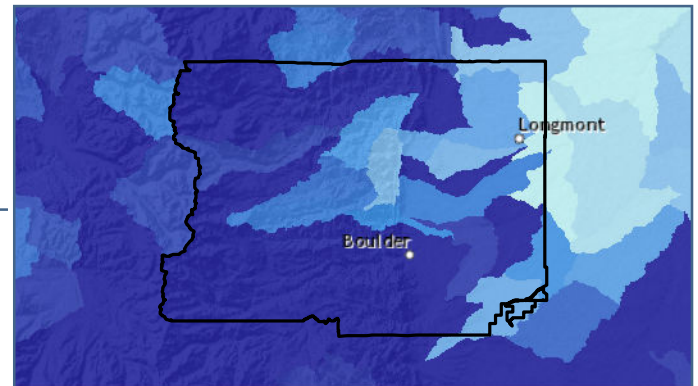
2x

Living with Wildfire



1x

Watershed Protection

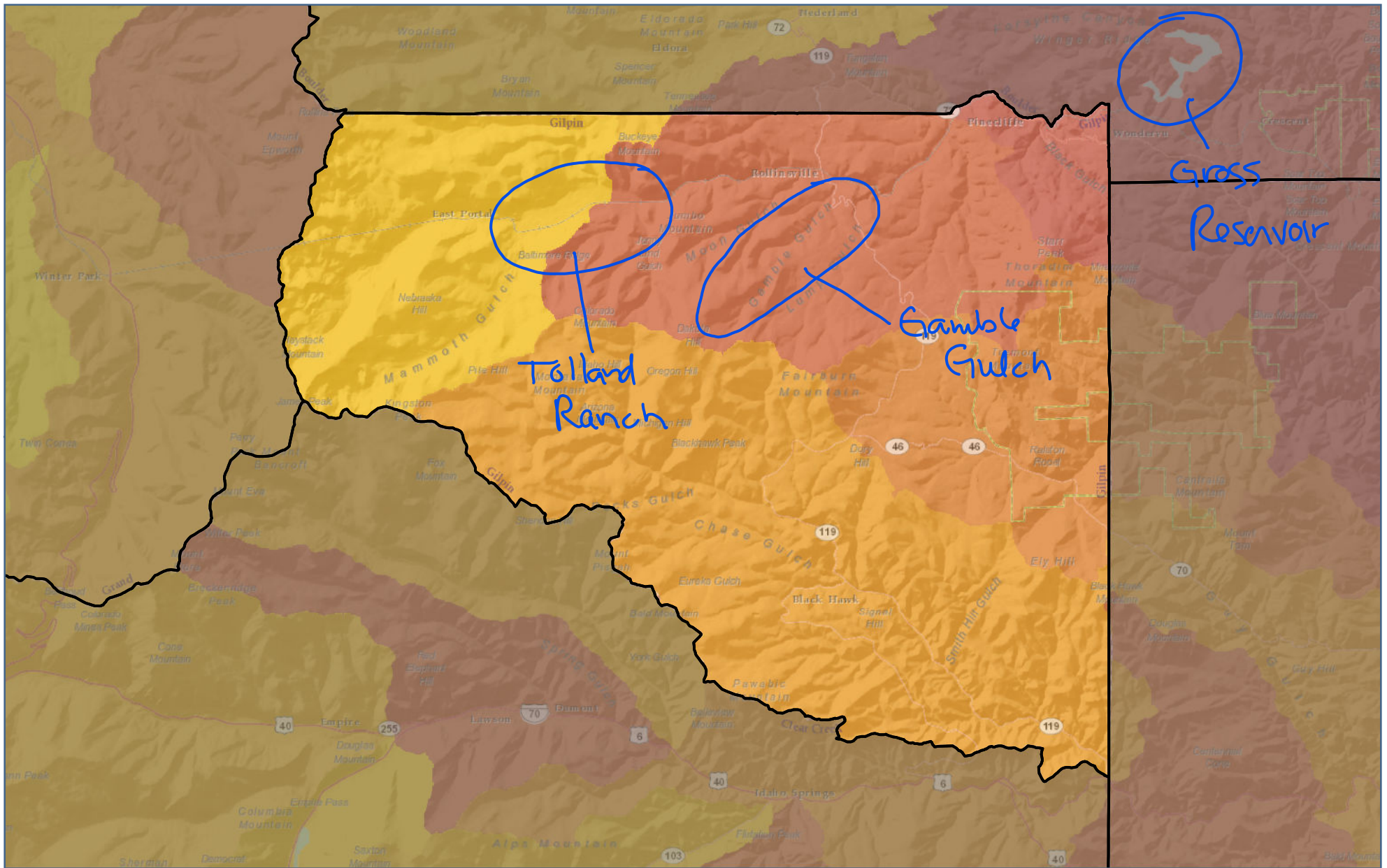


1x



For more information, please visit:
csfs.colostate.edu/forest-action-plan



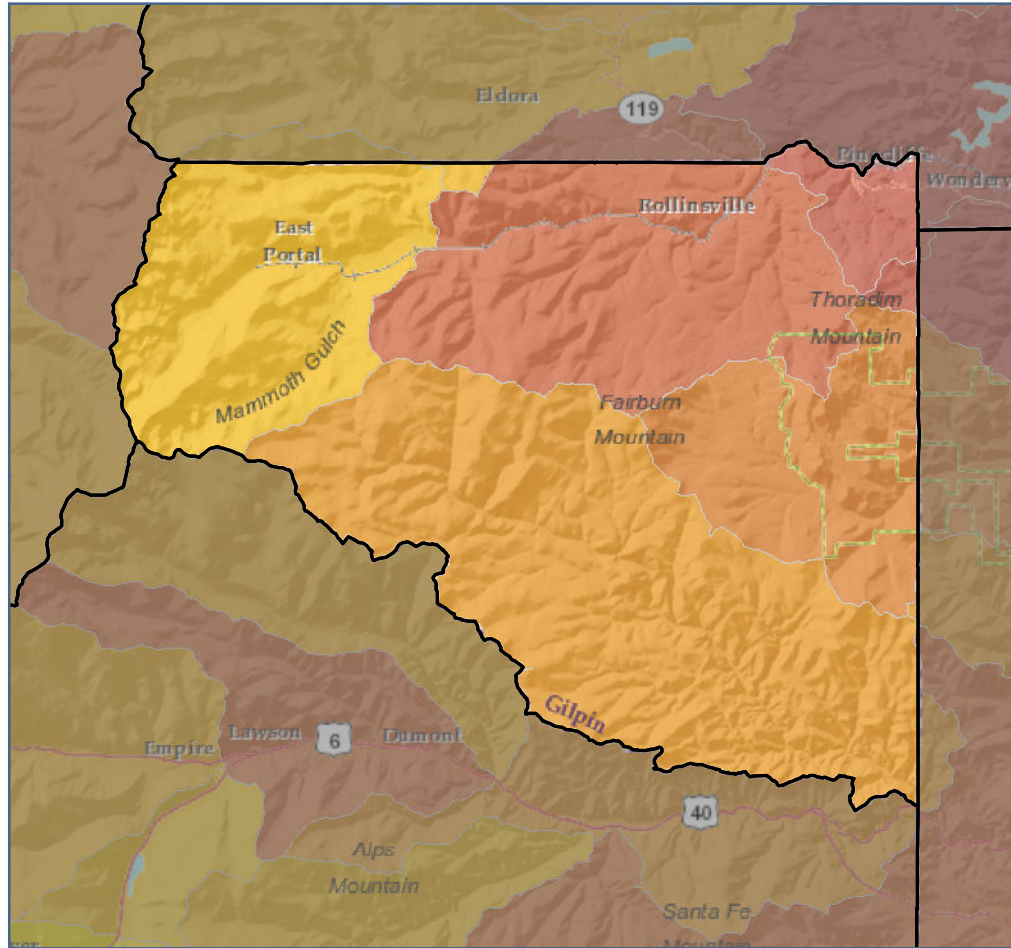


For more information, please visit:
cfs.colostate.edu/forest-action-plan

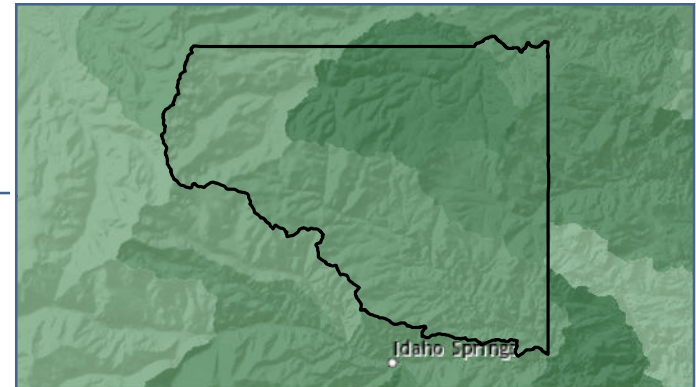


Composite Map

Gilpin County

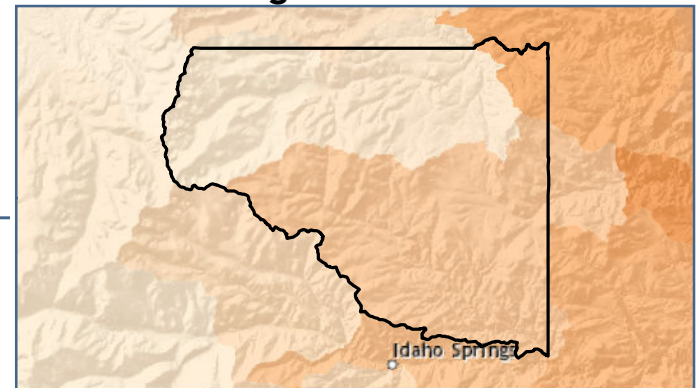


Forest Conditions



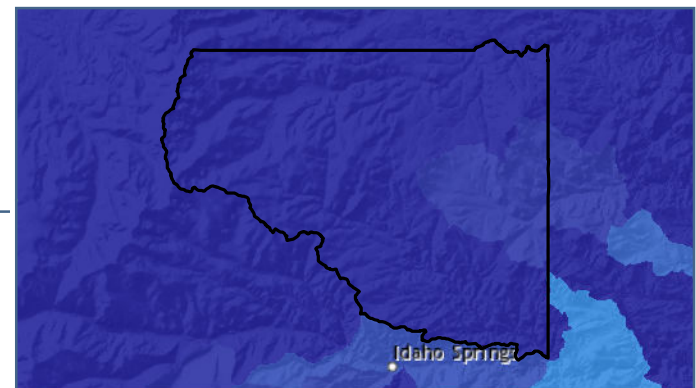
2x

Living with Wildfire



1x

Watershed Protection



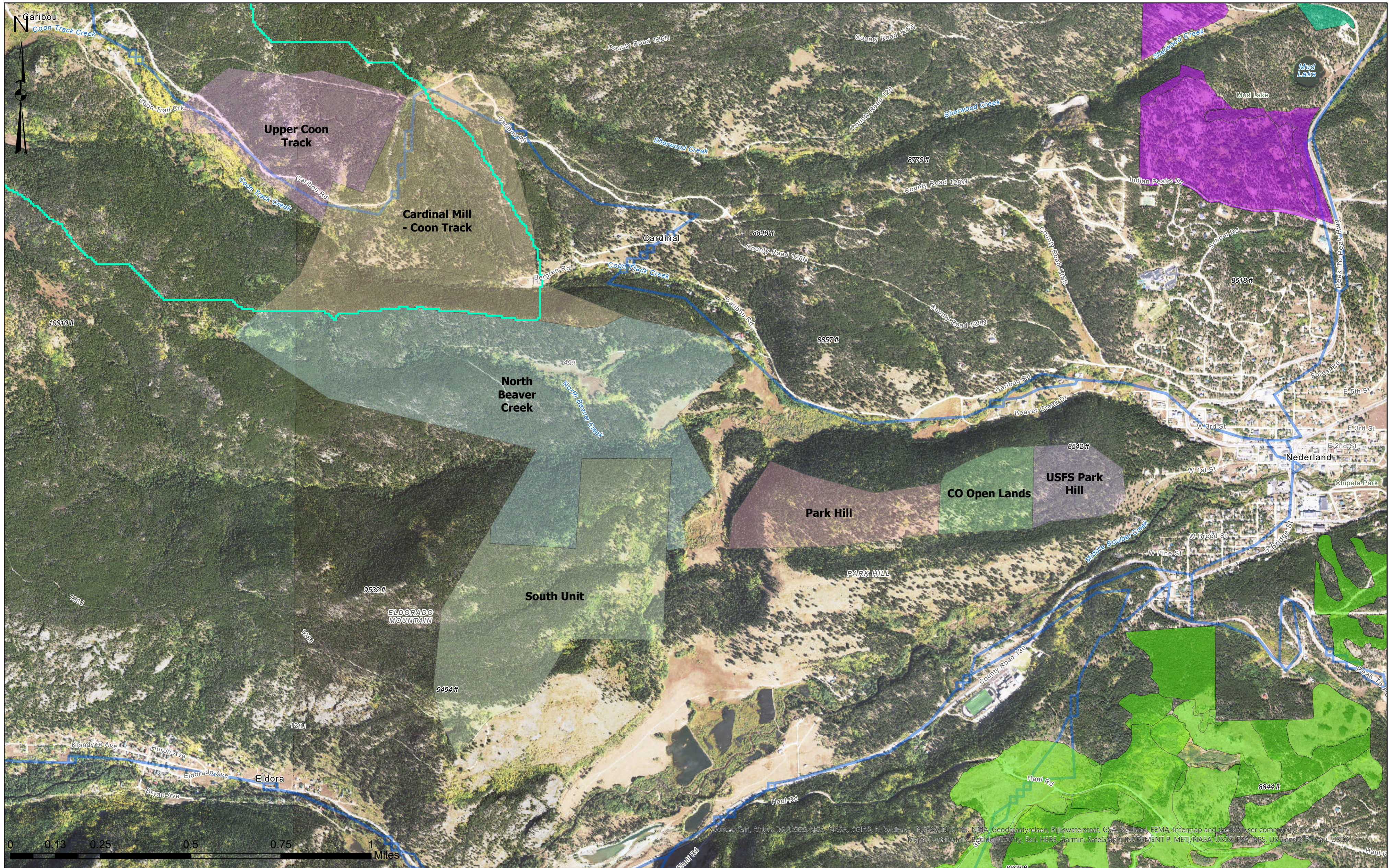
1x



For more information, please visit:
csfs.colostate.edu/forest-action-plan



**MIDDLE BOULDER CREEK
CONCEPTUAL WILDFIRE MITIGATION PROJECTS
AERIAL VIEW
MAY 2021**



- | | | |
|---|---|--|
| <p>Cardinal Mill Treatment Areas</p> <ul style="list-style-type: none"> USFS Park Hill CO Open Lands Cardinal Mill - Coon Track North Beaver Creek Park Hill South Unit Upper Coon Track | <p>Existing Fuel Treatments</p> <ul style="list-style-type: none"> CO State Forest Service Treatments Combined USFS Treatments Boulder County POS Treatments | <p>USFS Potential Ops. Delineations (PODs)</p> <ul style="list-style-type: none"> USFS Potential Ops. Delineations (PODs) Watershed Upstream of Cardinal Mill |
|---|---|--|

NOTE: These are conceptual treatment areas that have not yet been carefully reviewed by landowners, professional forestry staff at the applicable agencies, or the local community. This map is for initial planning purposes only. Any final treatment areas will vary substantially in location and size.



BLUESTEM
CONSERVATION MANAGEMENT



320 E. Vine Drive, suite 317
Fort Collins, CO 80524 USA
(970) 222-5754
www.poudrewatershed.org

August 16, 2021

Colorado Water Conservation Board
1313 Sherman St., Room 718
Denver, CO 80203

RE: Match commitment for the Boulder Watershed Collective's Water Plan
Grant Fund application for Planning and Visual Storytelling

Dear Mr. Wade,

The Coalition for the Poudre River Watershed (CPRW) has allocated \$25,000 to support the Boulder Watershed Collective in forest related outreach and engagement with local communities. This is part of a larger effort through the Northern Colorado Fireshed Collaborative to increase community engagement throughout the Northern Front Range to build support for watershed protection and forest management. Funds from the Colorado Water Plan Grant Fund for Planning and Visual Storytelling will support our collective goal to increase the pace and scale of forest restoration and contribute to watershed and community protection. CPRW looks forward to collaborating on prescribed fire videos and other methods of visual storytelling.

Sincerely,

Hally Strevey



Parks & Open Space

5201 St. Vrain Road • Longmont, CO 80503
303-678-6200 • POSinfo@bouldercounty.org
www.BoulderCountyOpenSpace.org

August 16, 2021

Colorado Water Conservation Board
1313 Sherman St., Room 718
Denver, CO 80203

RE: Match commitment for the Boulder Watershed Collective's Water Plan Grant Fund application for Planning and Visual Storytelling

Dear Mr. Wade,

Boulder County has committed \$20,000 to support the Boulder Watershed Collective in forest related outreach and engagement with local communities. Additional funds from the Colorado Water Plan Grant Fund for Planning and Visual Storytelling will support our collective goal to increase the pace and scale of forest restoration and contribute to watershed and community protection. Boulder County looks forward to collaborating on prescribed fire videos and other methods of visual storytelling.

Sincerely,

Therese Glowacki



Wonder Labs

Wonder Labs LLC
710 S Genevieve Ln
San José CA 95128

August 16, 2021

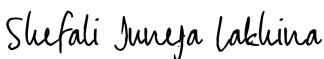
Colorado Water Conservation Board
1313 Sherman St., Room 718
Denver, CO 80203

RE: Match commitment for the Boulder Watershed Collective's Water Plan Grant Fund application for Planning and Visual Storytelling

Dear Mr Wade,

Wonder Labs has allocated \$10,000 to the Boulder Watershed Collective and University of Colorado student partners through our [Living with Fire Design Challenge](#). The objective is to have teams closely engage with communities in processes of reimagining inclusive, just, and sustainable pathways to living with fire. Projects are co-developed with communities at high risk of wildfire impacts in the western United States. Photo/voice is one method of engagement that has been successful in other areas and is an innovative approach that can be tested in Colorado. Wonder Labs looks forward to following the development of this project in the Boulder area.

Sincerely,

DocuSigned by:

A6CDA9368775448...

Dr. Shefali Juneja Lakhina
Co-founder, Wonder Labs

Email: shefali@lakhina.com

Mob: 415-684-3256



Colorado Water Conservation Board
1313 Sherman
Denver, CO 80202

June 19, 2021

Dear Grant Reviewer,

The Ember Alliance is submitting this letter to express support for the Planning and Visual Storytelling project grant application being submitted by the Boulder Watershed Collective.

The Ember Alliance helps communities prepare for wildfires, from preplanning to response to the sometimes long recovery period. The Ember Alliance works with public and private groups to conduct prescribed fires to make sure that when wildfires happen, they burn calmly in healthy forests and grasslands that have been burned previously.

The Ember Alliance has been successful in implementing slash pile building and burning workshops for private landowners in Larimer County. These workshops provide a depth of knowledge that broadly supports watershed stewardship through forest management and encourages the public to participate effectively in managing their own land through collective action. Bringing these workshops to Boulder County is one method in support of the goal to increase the pace and scale of forest and watershed restoration.

The Ember Alliance looks forward to partnering with the Boulder Watershed Collective and other partners to create informative and engaging videos on topics related to prescribed fire, wildfire ecology and watershed health. The video series will compliment the pile workshops and be accessible to people along the Front Range.

The Ember Alliance will commit \$5,000 in-kind to support this project through the development and facilitation of pile burning workshops to take place after the pile building workshops. More information about The Ember Alliance can be found on our website: <https://emberalliance.org/>

Thank you for considering this request.

Sincerely,

A handwritten signature in black ink, appearing to read "DLasky".

Dave Lasky
Fire Management Officer
The Ember Alliance



June 22, 2021

Grant Management Officer
Colorado Water Plan Grants
Colorado Water Conservation Board

Re: Letter of Support for the Boulder Watershed Collective's request for funding for July 1st, 2021 Colorado Water Plan Grant

To Whom It May Concern,

We are pleased to support the Boulder Watershed Collective's grant application for funds to support continued characterization efforts within the Boulder Creek watershed. We have been working with the Collective (formerly the Fourmile Watershed Coalition) for multiple years supporting and engaging in water and soil sampling, mine waste characterization and reviewing designs for mine reclamation and other stabilization projects to minimize downstream sediment loading and improve ecosystem function.

We are excited about the numerous opportunities that this funding will provide for the Collective and area partners. We look forward to supporting the Collective as they identify forest health opportunities in the Gamble Gulch watershed. As they have numerous times in the past, Trout Unlimited is confident that the Collective will thoughtfully oversee and guide engagement, project planning and data sharing at these priority sites in order to ensure successful conservation and restoration at each site.

Trout Unlimited's mission is to conserve, protect and restore North America's coldwater fisheries and their watersheds. We believe watershed-wide, partner-based restoration efforts, like the ones presented by this funding opportunity, are critical steps for promoting long-standing, sustainable environmental resilience.

Our organization values the restoration work conducted by the Collective and looks forward to continuing to partner on these important projects. Trout Unlimited will also contribute \$1,300 in-kind labor to assist with the planning project. We encourage you to consider this grant request.

Sincerely,

Lauren Duncan

Abandoned Mine Restoration Project Manager
lduncan@tu.org/ 720-276-3889

RE: IDP application

Camacho, Mari <CamachoM2@bouldercolorado.gov>

Mon 6/28/2021 1:23 PM

To: Maya MacHamer <maya@boulderwatershedcollective.org>

Cc: Fong, Clay <FongC@bouldercolorado.gov>

Dear Maya,

Congratulations to *Boulder Watershed Collective - Traditional Ecological Knowledge Workshop* Project. This award consists of **\$1300**.

Staff will begin work on drafting the contract and will be reaching out with any questions. If your address or bank information has recently changed, please email our Payments office or if you are a first time grantee, staff will also be reaching out to make sure that you file vendor paperwork with the city at payments@bouldercolorado.gov so that you can get paid.

If you have any questions, please let us know.

Best,

Mari Camacho
Administrative Specialist II
Bilingual (Español & English)



City of Boulder
Housing & Human Services

O: 303-441-3157

CamachoM2@bouldercolorado.gov

Housing & Human Services Department
2160 Spruce St | Boulder, CO 80302
Bouldercolorado.gov

From: Maya MacHamer <maya@boulderwatershedcollective.org>
Sent: Tuesday, June 15, 2021 4:38 PM
To: Camacho, Mari <CamachoM2@bouldercolorado.gov>
Cc: Fong, Clay <FongC@bouldercolorado.gov>
Subject: Re: IDP application

Thank you, Mari. Looking forward to it.

Maya MacHamer
Director

Notice of 2020 Fires Relief Fund - Mitigation - Grant Award

The Community Foundation Serving Boulder County <administrator@grantinterface.com>

Wed 5/26/2021 9:58 PM

To: Maya MacHamer <maya@boulderwatershedcollective.org>

Cc: Sarah@commfound.org <Sarah@commfound.org>

Dear Maya:

On behalf of the Trustees of the Community Foundation Boulder County, I am pleased to inform you that your application has been selected to receive a grant of \$22,496.00 from the 2020 Fires Relief Fund - Mitigation - for mitigation for the Weaver project and related communications efforts.

We appreciate all that you do to make Boulder County a place where all can thrive.

You will receive a check in approximately two weeks, which will include a letter with more details. With acceptance of this grant, you agree to the following terms:

- The grantee is currently recognized by the Internal Revenue Service as an entity described in Section 501(c)(3) or 170(c)(1) of the Internal Revenue Code of 1986 ("the Code"), or has a fiscal sponsor that is.
- There is no substantial benefit to the donor from payment of membership, i.e. tickets or tables for fund raising events, and no goods or services were received in exchange for this grant.
- The Foundation will be sent immediate written notification of any change in the grantee's tax-exempt status.
- This grant will be used for purposes and/or expenses as indicated in this letter. Grants from CFBC are exclusively for activities or projects in Boulder County and for the benefit of Boulder County residents.
- Please submit a final report electronically and **no later than one year (12 mos.) after the date** you received this grant. To submit your final report, go to: <https://www.grantinterface.com/Home/Logon?urlkey=commfound> , use the same log-in as you used for your application and the report form will be available on your Dashboard. If you apply for other grants from the Community Foundation Boulder County, you will need to include a progress report on this grant. If you have any questions, contact either me, or Sarah Mikkelsen, sarah@commfound.org.
- **In any publicity about this grant or program, acknowledgment will be made that funds were received from the Community Foundation Boulder County.**

Endorsement and deposit of this check will indicate your acceptance of the grant and conditions above. Correspondence such as thank you letters should acknowledge the 2020 Fires Relief Fund of The Community Foundation Boulder County, 1123 Spruce Street, Boulder, Colorado 80302.

Sincerely,
Lisa Moreno
VP of Programs



June 22, 2021

Grant Management Officer
Colorado Water Plan Grants
Colorado Water Conservation Board

Re: Letter of Support for the Boulder Watershed Collective's request for funding for July 1st, 2021 Colorado Water Plan Grant

To Whom It May Concern,

We are pleased to support the Boulder Watershed Collective's grant application for funds to support continued characterization efforts within the Boulder Creek watershed. We have been working with the Collective (formerly the Fourmile Watershed Coalition) for multiple years supporting and engaging in water and soil sampling, mine waste characterization and reviewing designs for mine reclamation and other stabilization projects to minimize downstream sediment loading and improve ecosystem function.

We are excited about the numerous opportunities that this funding will provide for the Collective and area partners. We look forward to supporting the Collective as they identify forest health opportunities in the Gamble Gulch watershed. As they have numerous times in the past, Trout Unlimited is confident that the Collective will thoughtfully oversee and guide engagement, project planning and data sharing at these priority sites in order to ensure successful conservation and restoration at each site.

Trout Unlimited's mission is to conserve, protect and restore North America's coldwater fisheries and their watersheds. We believe watershed-wide, partner-based restoration efforts, like the ones presented by this funding opportunity, are critical steps for promoting long-standing, sustainable environmental resilience.

Our organization values the restoration work conducted by the Collective and looks forward to continuing to partner on these important projects. We encourage you to consider this grant request.

Sincerely,

Lauren Duncan

Abandoned Mine Restoration Project Manager
lduncan@tu.org / 720-276-3889

June 29, 2021

Colorado Water Conservation Board
1313 Sherman
Denver, CO 80202

Dear Grant Reviewer,

The Ember Alliance is submitting this letter to express support for the Planning and Visual Storytelling project grant application being submitted by the Boulder Watershed Collective.

The Ember Alliance helps communities prepare for wildfires, from preplanning to response to the sometimes long recovery period. The Ember Alliance works with public and private groups to conduct prescribed fires to make sure that when wildfires happen, they burn calmly in healthy forests and grasslands that have been burned previously.

The Ember Alliance has been successful in implementing slash pile building and burning workshops for private landowners in Larimer County. These workshops provide a depth of knowledge that broadly supports watershed stewardship through forest management and encourages the public to participate effectively in managing their own land through collective action. Bringing these workshops to Boulder County is one method in support of the goal to increase the pace and scale of forest and watershed restoration.

The Ember Alliance looks forward to partnering with the Boulder Watershed Collective and other partners to create informative and engaging videos on topics related to prescribed fire, wildfire ecology and watershed health. The video series will compliment the pile workshops and be accessible to people along the Front Range.

More information about The Ember Alliance can be found on our website:
<https://emberalliance.org/>

Thank you for considering this request.

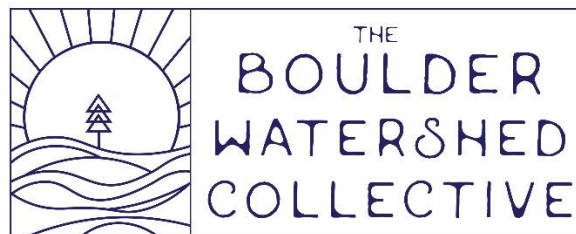
Sincerely,

A handwritten signature in blue ink, appearing to read 'DL', with a long horizontal flourish extending to the right.

Dave Lasky
Fire Management Officer
The Ember Alliance

FOREST RESILIENCY OUTREACH AND EDUCATION PLAN

December 2020



Contributors: David Gillman, Rachel Carlson, Nathaniel Goeckner, Callie Rhodin, Maya MacHamer,
Cat Price, Dr. Lydia Lawhon

1. Executive Summary

The Boulder Creek watershed, like much of Colorado and the American West, has experienced the negative effects of wildfire. As wildfires increase in frequency and severity, planning efforts need to be reinforced to address future challenges. The Boulder County Forest Collaborative (“the Collaborative”) was founded in 2020 to build trust within the Boulder County community and to develop and foster professional networks and relationships in order to improve the county’s wildfire mitigation and prevention strategy. Education of the public, as well as outreach to both the general public and professional organizations is a crucial part of the process; collaboration cannot be successful without communication. A successful education and outreach program will lead to:

1. Increased public awareness of the ecological impacts, good and bad, of wildfires.
2. Increased public awareness of the wildfire risk and risk reduction strategies.
3. Greater incorporation of the public’s values into mitigation and prevention projects.
4. Projects that are more effective and efficient driven by streamlined, cross jurisdictional and communication, planning and partnerships.

This plan outlines different strategies for the Collective to educate and engage both the public and its partners. The plan also outlines the challenges, benefits, and future direction of different strategies. It is designed to be updated at least once a year to always reflect the most current available information.

2. About this Plan

After analyzing issues related to resilient forests, restoration and wildfire mitigation and ideas for effective communication between professionals and the public, the Boulder Watershed Collective, in cooperation with University of Colorado’s Masters of the Environment program, developed the initial Outreach and Education Plan. Throughout the document, first person references (“we”, “us”, “our”, etc.) refer specifically to the members of the team who created this plan. The planning milestones and activities schedule will change each year to reflect the needs of Boulder County to achieve the purpose stated above.

3. Purpose

The purpose of this document is to guide the development and implementation of outreach and engagement practices pertaining to forest health and wildfire within communities in the Boulder Creek watershed. There are many municipal and private organizations engaged in various types of forest-related projects, some of whom work primarily within their own communities and networks. This document outlines strategies and methods for scalable engagement that can be undertaken by multiple groups. The Collective will work with the Northern Colorado Fireshed Science and Adaptive Management Team to provide resources and opportunities to partners in order to have shared messaging throughout the watershed.

Education and engagement are critical components of any initiative and provide a setting for reciprocal listening and learning between groups that, over time, increases trust and cultivates deeper and more functional long-term relationships. Multiple communities have requested educational opportunities and resources related to ecological forest health and the concepts that underly forest restoration practices. This document will present a variety of ways to grow and foster the relationships between communities and organizations working on forest restoration projects as well as ways to provide the public opportunities for further education on wildfires.



This document is intended to be used as internal guidance for the Collective. Outreach and engagement messaging and programs will be generally tailored to a public audience who is assumed to be relatively well informed about wildfire risk. Outreach and engagement efforts intend to expand and enhance partnerships while contributing to a more informed public with a greater public understanding of resilient forests, wildfire risk, prescribed fire and how and why forest treatments are implemented.

Though the Collective anticipates partners and members of the public to be somewhat well informed on wildfire matters, there are knowledge gaps, such as misunderstandings between the public and professionals who work with wildfire about goals and priorities. By having the public

be more engaged in the decision-making process, we anticipate there will be less resistance to certain preventative and mitigation measures. This outreach effort will also support agencies in tailoring restoration and mitigation projects to meet the desires of local communities, as appropriate, rather than a “one size fits all” policy towards wildfire prevention. This shift, from a disengaged community learning about wildfires in the media, to a community that feels involved forest restoration planning, should allow the Collective and its partners to take a more proactive approach to managing the landscape rather than a reactive approach to fighting and recovering from wildfires. Community involvement also allows for increased capacity and capabilities towards planning and project development. More involvement should lead to an increase in volunteering and fundraising, resources which are imperative on such a broad landscape.

The Boulder Watershed Collective’s primary outreach goals include:

- Helping affected communities in Boulder County understand the wildfire risk to their own homes
- Increasing public understanding of the wildfire risk that comes with certain behaviors
- Building trust in the community towards wildfire mitigation and prevention techniques and strategies
- Cultivating open and honest communication and establishing networks with landowners and communities.
- Helping the public better understand why certain measures are necessary and gaining a greater understanding from the public about their own values.
- Shifting the conversation away from fires towards values at risk
- Providing a greater understanding to the public about the ecological importance of wildfires
- Working with the public to clarify and define what a successful future in wildfire mitigation and prevention looks like.

4. Background

In 2019, multiple partners came together across Boulder County with the goal of creating a network of organizations working to improve forest resilience, or the ability of forests to absorb and recover from current and future stressors and disturbances. In their 2018 annual report, the Colorado Forest Restoration Institute (CFRI) stated that “fire is an essential part of how forests renew and sustain.” However, historic land uses and decades of fire suppression have excluded fire from millions of forested acres of in Colorado and across the western United States. Since the early 1990s, the size and severity of wildfires have increased while human land use and development in fire-prone forests have also expanded. This combination of factors has resulted in the loss of life, property, and highly valued natural, social, and economic assets from wildfires. This trend is forecasted to continue due to increases in average annual temperatures and the frequency, duration, and severity of drought.

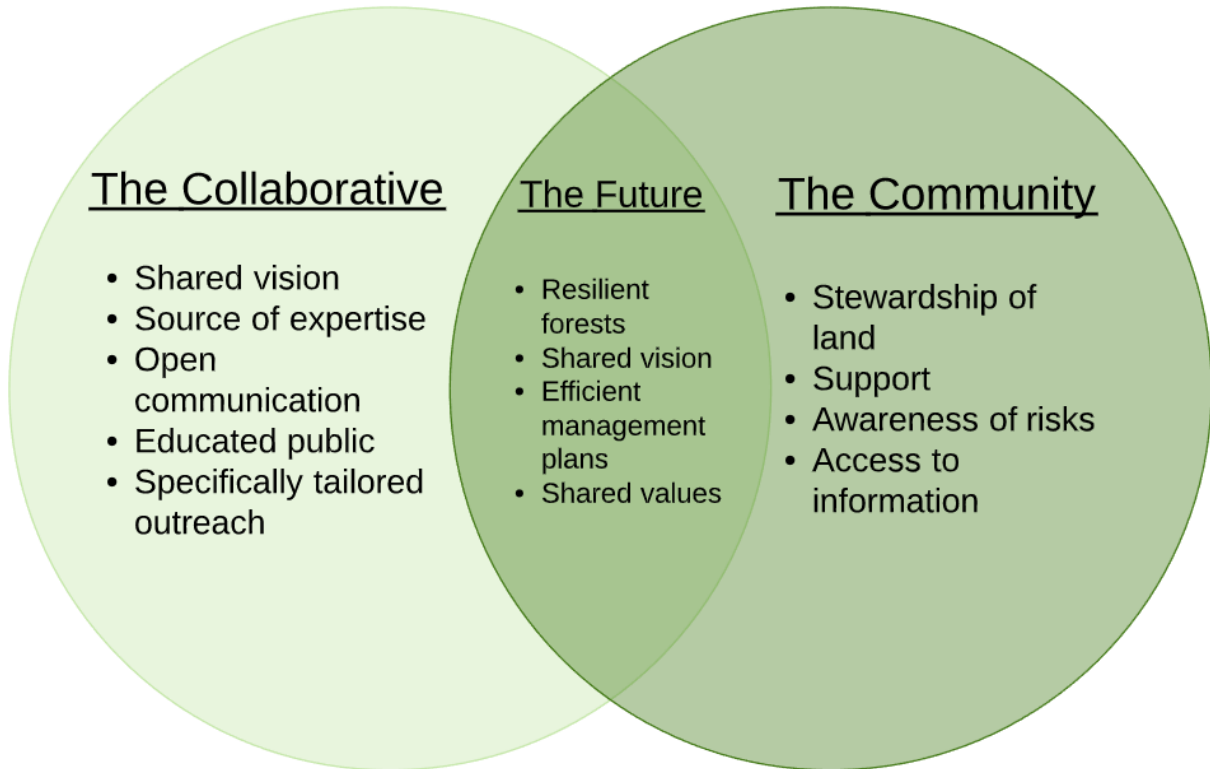
Within this context, multiple Boulder County agencies signed an MOU in August 2020 with a shared vision of what they collectively seek to achieve across the forested areas of the county. Forested communities, downstream communities and stakeholders directly or indirectly impacted by declining forest health and potential catastrophic wildfire should be part of the process over time to refine a vision for the future of forests in the county.

The MOU called for the establishment of a “Communications and Education Team to use the information developed by the Science Team and otherwise support the work of the collaborative organizations and ensure consistent messaging to the public and media by the Parties. Public education focused on proper and improper forest uses related to wildfire prevention and stewardship should also be a focus of the Communications and Education Team.”

Important outreach goals stated within the MOU include:

1. Conducting meaningful and ongoing engagement of stakeholders located in the forest and downstream in the development of strategies to achieve the outcomes and foster support for the implementation of those strategies.
2. Supporting and working with existing and future forest-focused collaborative organizations to outreach and engage stakeholders to increase understanding and together refining the vision and outcomes related to increasing forest health and decreasing wildfire risk.
3. Increasing the capacity of county fire districts so that they can play a greater role in outreach and engagement with stakeholders and in the implementation of small- and large-scale projects that include private land and defensible space/home improvements.

Bringing Together Community and Collaboration for a Better Future



Shared values and goals along with open communication will help Boulder County deal with wildfires and maintain productive forests.

5. Partnerships

The MOU signed in August 2020 formalized partnerships between many organizations including Boulder County, Colorado Parks and Wildlife, Colorado State Forest Service, the cities and communities of Boulder, Longmont, Nederland, Gold Hill, Lyons, Ward, and Jamestown, the Longmont Conservation District, the Boulder Valley Conservation District, the Boulder County Firefighters Association, the Colorado Forest Restoration Institute at Colorado State University, the United States Department of Agriculture, and the US Forest Service.

Partnerships are a crucial component towards accomplishing long term education and outreach goals. A major part of the revision process for this plan will be soliciting data from the various partners as to their roles, and to define those roles accordingly. Based on this information, the Collaborative will develop goals and outcomes that reflect these roles. As we develop new and updated plans annually, we will work with these partners to discuss opportunities for collaboration on projects.

All of these organizations have a vested interest in reducing the impact of wildfires in the area and all have a public-facing element to solicit input. In many cases, partners will take the lead

on certain projects. Informal partnerships will include those with community organizations, environmental non-profit organizations, and schools. One category of organizations with potential for collaborations is youth groups and conservation corps. These types of organizations, comprised of individuals who are committed to enhancing the environment and various ecosystems typically undertake a lot of work at a relatively low cost. However, their time is in demand, and it is therefore important that the Collaborative effectively shows the value of its work.

There are two main challenges that we anticipate will arise from working with partners. The first is the likelihood that some partners will have competing interests and that there will be overlap between planned Collaborative projects and projects that partners are already involved in. For example, a municipality may have to weigh the ecological benefits of a prescribed burn against the economic downside of closing an area down for a certain amount of time. At this time, it is unclear what exactly those competing interests and/or overlap entail, but we recommend that this is consistently addressed at meetings as the Collaborative proceeds into the future.

The other challenge is the shifting priorities of partners and partnerships into the future. This is another challenge that highlights the need for constant communication. At the beginning of each year, the Collaborative will solicit input from partners about the partners' expectations and priorities for the upcoming year. The Collaborative will also request that its partners give feedback if these expectations and priorities change. This will then be addressed at the bi-monthly meetings.

As mentioned, organizational roles are yet to be determined, but broadly, we anticipate the following division of labor:

- Local organizations, such as watershed groups, fire districts, and municipalities, will be the primary outreach components to local communities and private landowners.
 - Specifically, this includes the distribution of surveys. These surveys will be designed either to gauge public opinion on local wildfire management or to gauge the general opinion from organizations within the Collaborative about the success of the partnership(s).
- Municipalities, Boulder County, and the US Forest Service will convey forest and general management plans for open space properties to the public.
- Federal agencies and other professional organizations will look to improve the NEPA approval process and limit public dissatisfaction. One example that is already taking place is the St. Vrain Forest Health Partnership in north Boulder reaching out to local communities before the decision-making process begins.

6. Defining the Revision Process

This document is designed to be dynamic and revised as needed. Values, priorities, budgets, and environmental conditions change over time, and it is necessary to ensure that the Collaborative's plan reflects the most current situation. New stakeholders and organizations are likely to formally join the Collaborative in the future, and their goals should also be considered.

We anticipate that all relevant stakeholders will have a say in the revision process directly or indirectly. The direct process, largely involving professional organizations, should be straightforward, as revising this document can be on the agenda at any meeting of the Collaborative.

The indirect process of revision, which will primarily involve the general public, will be similar to the Planning Rule that each National Forest has to abide by when gathering input. Tailored to our particular collaborative, those methods include:

- **Informing:** Providing members of the general public and other relevant stakeholders with objective information based on the best science and help them in understanding documents and other relevant data that factor into any given decision.
- **Consulting:** Obtaining feedback from relevant stakeholders at multiple points in the process, ensuring no significant steps are taken without a consensus, or at the very least, an understanding from all parties. In addition to the bi-monthly meetings, the Collaborative plans on meeting with each partner at least once a year individually, in order to ensure there is a mutual understanding on values and priorities.
- **Involving:** Working and engaging with stakeholders consistently to make sure that their various points of view are always being taken into consideration, and to make sure that the perspective of the Collaborative is not skewed towards certain values. Essentially, the Collaborative needs to ensure that the values of those who don't want to be actively interested in the consultation process are still involved indirectly in the decision-making process. This can be done through surveys, polls, or reaching out to organizations that represent different groups.
- **Collaborating:** Work directly with stakeholders not only in preparing decisions, but also in development of alternative plans and identifying preferred alternatives that may represent a compromise for some groups. This will help to identify and establish common ground that, over time, will be incorporated into all decisions. The previous three steps are ultimately different forms of information exchange; this step is where the information is all put together to come up with specific plans for projects.

Outreach Planning & Delivery

2

Consult

Obtain feedback from stakeholders to ensure understanding of all significant steps.

1

Inform

Provide the public and other stakeholders with objective information to help understand factors in any given decision.

3

Involve

Work and engage with stakeholders consistently to ensure all viewpoints are taken into consideration and ensure that the Collaborative is maximizing a diversity of values.

4

Collaborate

Prepare decisions, identify commonalities, and develop plans with stakeholders. This will help strengthen partnerships that enhance all decision making processes.

5

Impact

Create projects that are effective, efficient, and inclusive.

Created by
The Fourmile Watershed
in partnership with
The Masters of the Environment Graduate
Program

7. Measuring Success

A successful forest collaborative is one that increases public knowledge- about the risks that wildfire poses to themselves and their communities, about why certain mitigation and prevention techniques are performed, and about what they can do to contribute. It also strengthens the network of professionals in order to make projects more efficient and effective. Measuring whether or not certain outreach efforts are successful is one of the biggest challenges the collaboration will face at the onset (as described in the following section), and data collection is paramount to addressing this challenge. As data collection increases over time, the Collaborative will be able to assess trends.

8. Challenges

We recommend that the plan be reviewed twice per year as stakeholders' priorities and opinions are likely to shift over time, especially among certain groups. Changing demographics, politics, budgets, views of environmental protection, and/or increases or decreases in wildfire prevalence and severity over time are among the factors that would contribute to a shift in the views of stakeholders. Some of the primary challenges include:

- **The unpredictability of future resources.** Creating a proposal for the future without knowing availability of funds and time is difficult. The Collaborative expects that both types of resources will increase in the future, but that is not a given. Furthermore, future funding may be earmarked for specific projects and increases may actually exceed expectations, which would necessitate a reevaluation of resource allocation.
- **Reliance on unmeasurable data.** Many outreach and education efforts will produce measurable results (attendance totals, donation increases, shifting survey results, etc.), but many will also be difficult to quantify. For example, if a large wildfire occurs during an extensive and sustained outreach effort, it may be impossible to quantify whether the fire itself or the previous outreach effort played a bigger role in increasing awareness among members of the public who identify both as increasing their individual awareness.
- **New stakeholders.** Through partnerships and networks, the Collaborative will be able to generally access diverse audiences for our outreach efforts. However, there are audiences with whom the Collaborative and its partners will not have worked with previously. A key way to identify these audiences will be through surveys that include demographic questions. Based on these surveys, demographic trends are likely to emerge with certain groups participating more than others. With limited resources, the communications and outreach team will need to figure out ways to reach these audiences. For example, if young people aren't involved, the team can target schools. If senior citizens aren't involved, the team can target retirement communities.

- **Lack of a template.** The Collaborative has been able to review the best practices of and challenges faced by other forest management collaboratives in the state of Colorado and the western United States. However, no two areas are the same ecologically or demographically, and this is the first attempt at a collaborative of this nature on such a large scale in Boulder County. Current collaboratives are generally limited to smaller areas or smaller groups. The Collaborative will review the strengths and weaknesses of current strategies in the county. It is very important for the Collaborative to assess the weaknesses in any strategies it implements in order to avoid wasted resources. This will be difficult at first, but over time, projects can be compared to previous versions. It is also important to identify aspects of current strategies that the Collaborative can supplement rather than replace entirely to efficiently use resources.
- **Public resistance, historical conflict, and differing priorities.** Disagreements over value prioritization may necessitate compromises among stakeholders in determining how to move forward with management options on a particular landscape. In many cases, particularly among private landowners or in aesthetically valuable areas, science may suggest that mitigation techniques such as prescribed burns or removal of vegetation are the best measures, yet there will be resistance to doing so because of other values (e.g., aesthetics, shade, wildlife habitat, etc.) Furthermore, there are disagreements among experts about what constitutes best practices or whether or not active measures should be taken at all. Regardless of the nature of the disagreement, the Collaborative can make sure decision makers are equipped with as much knowledge as possible.

9. Next Steps

Before undergoing the planning phase of our Education and Outreach plan, the Collective assessed the education and outreach efforts that have already been completed or are in progress. The goals of this assessment are to:

1. Identify opportunities, strengths, and weaknesses in our efforts
2. Establish the information and data that the organization already has, as well as information we need to create an effective plan
3. Better understand the points of view of our partners and other relevant stakeholders, such as they were until this point in time.

Our Education and Outreach plan started by creating a vision statement that describes our goals for the Collaborative's education and outreach efforts:

“The Collaborative aims to provide education and outreach in order to help the residents of, and visitors to, Boulder County understand and value the benefits of forests and responsible wildfire management in ways that support a sustainable future.”

We then focused on the goals of our plan. In order to achieve these goals more effectively, we attempted to put this vision statement into proper context to decide the specific outcomes we hope the Collaborative achieves. To help guide this process, the team created a stakeholder analysis, which broke down each stakeholder by type and assessed the best methods and tactics to reach out to them based on the priorities and attitudes they may have towards wildfire mitigation. In addition to guiding the actions of the Collaborative, one of the main purposes behind creating the stakeholder analysis is to create a “roadmap” for future members of the Collaborative who may not be as familiar with specific stakeholders.

Once we clearly established the outcomes (see section 10) we hope the Collaborative achieves with its education and outreach efforts, we reviewed the stakeholder analysis to establish common priorities among stakeholders. We then tailored specific techniques and messages designed to reach broader audiences. With finite resources, it is imperative that the Collaborative increases the number of people reached with each education and outreach initiative and that it maximizes the effectiveness of its messaging. By undertaking this analysis, we were able to identify the stakeholders that had common ground with other stakeholders in many areas. This will assist the push for efficiency- we were able to identify groups that can be effectively approached in a wide variety of ways and focus on the measures that include others.

Because this plan was created in the early stages of the Boulder County Forest Collaborative’s existence and in parallel with the finalization of the MOU, research still needs to take place on the specifics of work planning and resource allocation. However, the creation of a Communications and Education Team will allow the Collaborative to work towards a long-term implementation plan.

The responsibilities of the Communications and Education Team as it relates to this matter are as follows:

1. Create a plan to define success for individual projects
2. Develop a system to plan for work schedules and resource allocation, in coordination with the Collaborative as a whole
3. Act as the expert and point of contact on all matters relating to education and outreach resources, activities, and training

We recommend that the first steps towards achieving these goals include:

- Creating a budget using the minimum amount of funding the Collaborative can expect to be able to allocate towards outreach and education, including identification of areas affected by an increase or decrease in said budget (Responsibility #2)
- Implementing standardized methods for collecting qualitative data (Responsibility #1)
- Defining success using specific metrics (Responsibility #1)
- Creating a framework that defines the roles and responsibilities of each partner in the Collaborative as it relates to outreach and education (Responsibility #3)

10. Planning Milestones

This section broadly outlines outreach and education goals which will need to be updated as projects are completed, deadlines are adjusted, and deliverables become more specific.

Distribution of surveys and interviews with the public	Spring 2021
Collection of surveys, creation of web site, storybook maps, and social media presence	Fall 2020
Development of Education and Outreach Plan	Fall 2020
Creation of Communication and Education Team, assignment of specific outreach roles	2021
Hosting panel discussions with experts and community members	Beginning in Fall 2020; ongoing
Soliciting community members to assist with pre- and post-plan monitoring	2021
Analyzing data and developing standards of success	2021

Needs for Evaluation

As previously stated, the ability to evaluate plans and define success is a crucial component of education and outreach efforts, as it helps provide an understand of what is work and what is not working. Most importantly, the following information needs to be clearly defined:

1. Availability of resources, both time and money
2. The most efficient and effective methods of reaching specific audiences and communities
3. The impact of different actions on desired outcomes

At this time, these are information gaps that need to be addressed to move forward with detailed planning. To improve the Collaborative's ability to plan work for the future and evaluate success, some or all of the following measures can/should be taken:

- Tracking education and outreach efforts, time, and money spent
 - Timesheets that specify time spent on different activity types
 - Monthly reports of time and money spend on outreach and education
 - Annual reports from each division
 - Annual reviews from individuals outlining why an activity took place, whether or not it was a success, and what the individual would have done differently
- Identify stakeholders' needs and priorities in order to increase efficiency
 - Surveys
 - Interviews
 - Review of comments on social media/web site

- Discussions with people who attend workshops and panels
- Identify future resources needed to increase the success of programs or surplus resources that can be allocated elsewhere
 - Invest in a graphic designer as necessary for a specific outreach campaign.

11. Stakeholders

The table below outlines stakeholder groups. Different stakeholders play different roles in a successful forest collaboration and require different forms of communication to reach them most effectively. Those are also outlined below.

Stakeholder	Effective Ways to Communicate with Stakeholder	Role in Outreach and Education
Residents, landowners, tourists	<ul style="list-style-type: none"> ● Web sites/blogs ● Social media ● Newspaper articles ● Podcasts/vlogs/webinars ● Print and digital ads ● Informational workshops 	Spreading information to peers and colleagues
Municipalities including Nederland, Boulder, Eldorado Superior, Lafayette, Louisville, and Erie and unincorporated communities.	<ul style="list-style-type: none"> ● In-person/virtual committee meetings ● Panels ● Email 	<ul style="list-style-type: none"> ● Public meetings/town halls ● Budget allocation ● Promoting policy ● Building trust with local communities
Print and digital media	<ul style="list-style-type: none"> ● Social media ● Email 	Outsized impact on public opinion
Fire and water districts	<ul style="list-style-type: none"> ● Committee meetings ● Email listservs ● Established networks 	<ul style="list-style-type: none"> ● Meetings: individuals/small groups ● Building trust with local communities ● Identify priorities from an anthropogenic perspective
Watershed and other conservation groups	<ul style="list-style-type: none"> ● Social media ● Email ● Committee meetings ● Networking events 	Communicate priorities from an ecological perspective

University of Colorado, Colorado Forest Restoration Institute (CSU)	<ul style="list-style-type: none"> • Email • Internal meetings • Social media 	<ul style="list-style-type: none"> • Information dissemination • Incorporation of priorities into related projects and research
US Forest Service, CO Forest Service, CO Parks and Wildlife	<ul style="list-style-type: none"> • Email listserv • Committee meetings • Social media 	Soliciting public opinion on management projects

12. Communication Strategies and Tools

For key milestones and during periods of change, the Collective should develop updated messages with partners based on lessons learned, a shift in priorities, or a change in strategy. If there is lack of clarity related to an issue messaging should be altered for clarity and directness.

Types of Communication

- **Internal communication:**
 - Committee meetings (science, education, operations and executive committees).
 - Email list serves
 - Through existing collaborative organizations: Boulder County Fire Fighters Association (BCFFA), Boulder Watershed Collective, Left Hand Watershed Center, St Vrain Forest Health Partnership, CU Center for Sustainable Landscapes and Communities.
- **External Communication:**
 - Social media, blog posts, newspaper articles, street banners, print and digital ads.
 - Focus on education, not purely trying to garner community support for a project.

The Deschutes Collaborative Forest Project utilizes social media effectively, either directly or indirectly. On the following page are three examples: one highlights their work, one seeks to educate the public on general wildfire knowledge, and the other simply informs the public about an upcoming project.



Years of planning go into each burn we complete on the Forest. Thanks to Deschutes Collaborative Forest Project for helping us tell our story.
m.youtube.com/watch?v=796DtK...



7:26 AM · Apr 30, 2019 · Twitter for iPhone

1 Retweet 2 Quote Tweets 28 Likes



"Scientific research has taught us much about wildfire in recent decades. That knowledge will help us live with fire, just as we live with hurricanes, earthquakes, and other extreme weather. The right policies will reduce risk to people and property while improving forest health and generating timber income in rural areas."



BENDBULLETIN.COM
Guest Column: Learning to live with wildfire in the West
 Reactions to recent megafires have been long on blame and short ...

5



Some prescribed fire coming up on the Deschutes.



CENTRALOREGONFIRE.ORG
Deschutes National Forest Plans Prescribed Burns East of Bend and Near ...
 Bend, Ore.- If conditions remain favorable, Bend-Fort Rock Ranger District fuels specialists plan to implement a series of prescribed burns east of...

Like Comment Share

Preliminary Planning within the Boulder County Community Wildfire Protection Plan

In September 2010, the Fourmile Canyon Fire became the most expensive wildfire in Colorado at the time (it has since been passed). In 2011, the Boulder County Community Wildfire Protection Plan (“CWPP”) was released. Within the CWPP, lessons from the Fourmile Fire were outlined, including some that relate to education and outreach. These specific lessons include:

Educating Homeowners About Under-Insurance: Educating homeowners about the problem of underinsurance may be the most cost-effective wildfire protection initiative contained in this plan. The trauma and financial hardships associated with underinsurance can be avoided with successful education and outreach. Dissemination of the video and the information it presents should be a priority for future community wildfire protection efforts.

Promote Defensible Space: A goal of virtually every Community Wildfire Protection Plan, including the one created in 2011, is to encourage homeowners to create effective defensible space. Creating defensible space is often noted as one of—if not—the most important actions individuals can take to protect their home from wildfire.

- The Wildfire Partners Program does this already effectively. However, there are many homes that still do not have it.

Specific engagement Strategies recommended in the Boulder County Community Wildfire Protection Plan:

Centralized Grant Processing: Create a central clearinghouse online for private landowners and community groups, such as fire protection districts, neighborhoods, and homeowners associations, to access funding resources and grant programs for mitigation and forest restoration projects. Both funders and applicants would make use of this service.

Wildfire Education and Outreach Coordinator: Assign a current county employee to be the Community Wildfire Protection Plan Education and Outreach Coordinator for the County or hire for this position. This position will coordinate a long list of programs, including an October Wildfire Awareness Month, and implement activities identified in this plan throughout the county.

Disseminating Fire Education Event Information: Continue “The Fire Series” and help create “Fire Net.” The Fire Series is a program of ongoing, monthly community educational presentations on all aspects of wildland fire. Fire Net is envisioned to be a countywide, interagency, umbrella calendar/blog/group which serves as a clearinghouse for all the fire education going on in the county.

Low-Interest Loan Program for Private Property Mitigation Efforts: This program would provide a resource to complement efforts to educate landowners about the individual and community-wide benefits of making fire safety improvements to their property. Landowners would be able to avail themselves of low-interest loans to fund improvements. The program is could be modeled on the existing EnergySmart program that is being administered by the County.

Wildfire Awareness Month: Promote and participate in Wildfire Awareness Month every May.

Engagement Strategies that have emerged since the CWPP was created:

- The communications and education team should create a document laden with visuals that outlines the goals of the Collaborative and how those goals can be supported. This document, if needed, can be presented to executive directors or key individuals involved with various organizations. The Collaborative can then use and/or support these organizations to access specific communities:
 - Sustainability Groups (Lyons, Jamestown, Nederland, Ward). Gold Hill Mountain Steward Group.
 - Saws and Slaws
 - Inter-Mountain Alliance
 - Boulder County Firefighters Association and/or individual fire district board meetings

- Nederland: Parks, Recreation and Open Space Advisory Board, Wild Bear Ecology Center, Peak to Peak Forest Group, Nederland Inter Agency Council for Homeless Encampments.
- Lyons: Ecology Group
- Leverage existing relationships with the following academic partners:
 - CU Center for Sustainable Landscapes and Communities
 - Ecosystem Trends Report
 - Colorado Forest Restoration Institute
 - Naropa University
- Develop Interactive Story Maps to communicate the intersection of ecology and fire management.
- Host virtual and in-person panel discussions on various topics with experts/community members.
- Involve community members in pre- and post-project monitoring to foster greater understanding of projects as well as an investment in long-term success.
- Create a website with a collection of resources and links to science-based best practices and funding opportunities.

13. Expectations of Members

- The Collective is an inclusive organization, where everyone's opinions will be heard and respected. All points of view will be seen as valuable, as the point of this organization is to solicit as many opinions as possible.
- Disagreements will be cordial and professional.
- Members will be honest and fair.
- Members will talk about their own opinions and thoughts, and not analyze the motivations of others.
- Members will respect each other's schedules.
- Members will commit to sharing all of their ideas- there's no such thing as a bad idea, as it may spark a thought in others.