

Funding Opportunity No. R23AS00362

WaterSMART Cooperative Watershed Program Phase I

D.2.2.2 Technical Proposal Content

D.2.2.2 Title Page

Project Title: Climate resilience planning and community engagement from the headwaters to the plains



Submitted by:

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D.2.2.2 Executive Summary

Date: December 5, 2023

Applicant Name, City, County, State: Lefthand Watershed Oversight Group, Doing Business as The Watershed Center, Longmont, Boulder County, Colorado.

Summary: The St. Vrain Sub-Basin sits within a priority landscape in the Wildfire Crisis Strategy, and is denoted as a High Risk Fireshed by the U.S. Forest Service. This project will work across the St. Vrain Sub-Basin to expand community and stakeholder engagement across the forests, rivers, and grasslands; inform broader watershed planning across forests and rivers through monitoring; and develop basis of designs for river restoration projects. To expand community and stakeholder engagement, we will conduct novel wildfire preparedness approaches that increase our understanding of fire risk and preparedness across the forests, rivers, and grasslands as well as increase the diversity of stakeholder engagement. We will also assess watershed resilience across time in both the forests and rivers, including in new areas where strategic enhancement of sediment capture may decrease wildfire risk to water resources. In addition, we will conduct long-term ecological and biophysical monitoring in the forests and rivers to inform how climate and wildfire resilience trajectories are changing, in areas both with and without active management. Finally, we will develop between two and three basis of designs for river projects that will help alleviate climate change and post-fire impacts. Together, these activities will address current issues in our watershed related to climate change and wildfire. Support for this project expand existing watershed management planning by allowing us to reach community members not historically engaged in watershed management planning and preparing our communities and ecosystems for multiple future climate scenarios.

Length of Time and Completion Date: We anticipate that this work will require 3 years with an estimated completion date of 12/31/2027.

Federal Facility: The proposed project is not on a Federal Facility.

D.2.2.2 Project Location

The St. Vrain Sub-Basin is located in the South Platte Basin and roughly overlaps with the boundaries of Boulder County, Colorado. The Hydrological Unit Code 8 (HUC8) for the St. Vrain Sub-Basin is 10190005. The proposed project encompasses the entirety of the St. Vrain Sub-Basin.

D.2.2.2 Applicant Category

Applicant Category: The Watershed Center is applying as an *Existing Watershed Group* because we are an established organization that is building on an existing watershed plan we completed in 2019 as part of a separate WaterSMART Cooperative Watershed Program Phase I project. This project will expand that plan to meet the evolving needs of our watershed and community. We were established in 2005, and The Watershed Center is a 501c3 non-profit organization located in



Longmont, Colorado. From 2005 to 2015, we focused our efforts on oversight of local mine cleanup activities in Left Hand Creek. In 2016, we secured over nine million dollars to implement twenty flood recovery projects throughout Left Hand Watershed. These projects aim to reduce flood risks, stabilize streambeds and banks, restore the ecological health of the watershed, and improve human health and safety. In 2019, at the request of stakeholders, we expanded our geographic scope beyond the Left Hand to the St. Vrain Basin Watershed. The purpose of this expansion was increase the positive impact of our successful tools and services for the benefit of watersheds, communities, and environment at a regional-scale. We also updated our mission to reflect this expansion of geography and services. In 2020, we became the lead coordinating entity of the St. Vrain Forest Health Partnership and in 2022 we began planning and managing forest management projects on private land. Today, our mission is to protect and restore watersheds for people and the environment using a collaborative and science-based approach.

Service Area	Project Name	Project Description
Forest Health	St. Vrain Forest	Collaborative that includes 100+ stakeholders
and Adaptive	Health Partnership	across the St. Vrain Watershed, which works
Management		toward community and ecosystem resilience to
		wildfire (2020 – Current)
Adaptive	Adaptive	Collaborative of 50+ members who manage and
Management	Management at	monitor watershed health in the St. Vrain Sub-
	Scale	Basin and are working together to develop and
		implement a shared monitoring framework
Adaptive	St. Vrain Adaptive	Adaptive management at recently completed creek
Management	Management	restoration projects in the St. Vrain Watershed
		(November 2018-December 2019)
Forest Health	Jamestown Fire	Fire mitigation through fuels reduction on 43
	Mitigation Project	private properties across Jamestown, CO (2022-
		2023).
Watershed	Water Quality Data	Analysis of ten years of water quality data collected
Science	Analysis	by the City of Longmont
Watershed	Fish Passage &	Feasibility study to opportunities for improving fish
Science	Education	passage in Left Hand Creek and develop education
		activities and resources related to working rivers
		(2019 – 2023)
Community	Community	Citizen science plan and activities using mobile and
Science	Science	web platforms for collection, management, and
		sharing of data (2018 – 2023)
Restoration	Upper Left Canyon	Flood recovery restoration at eight sites including
		beaver dam analogs, channel grading, floodplain
		grading, asset protection, and bank protection (2018
		- 2020)

The table below provides a summary of our ongoing and recently completed projects.



Adaptive	Left Hand Adaptive	Adaptive management at recently completed creek
Management	Management	restoration projects in Left Hand Creek Watershed
		(2018 - 2023)
Adaptive	Adaptive	Development of plan, framework, and guide for
Management	Management Plan	adaptive management in Left Hand Watershed
		(2018)
Restoration	Three Reaches	Flood recovery restoration at eleven sites including
		channel and floodplain grading, asset protection,
		and bank protection $(2016 - 2017)$
Stewardship	Stewardship	Education resources about watershed stewardship
	Handbook	for creek-side property owners. (2016 – 2017)

D.2.2.2 Eligibility of Applicant

The Watershed Center is an existing 501c3 non-profit watershed coalition in Longmont, CO.

D.2.2.2 Project Description

Task Area(s): We are applying under all tasks; Task A: Watershed Group Development, Task B: Watershed Restoration Planning, and Task C: Watershed Management Project Design.

Project Description:

The following tasks outline the technical aspects and related activities to complete the proposed project and requirements for a Cooperative Watershed Management Program Grant. Task-related timeline and milestones can be found in E.1.3 Evaluation Criterion C.

Task A: Watershed Group Development

Wildfire risk to our community and natural resources is a topic that we have organizational expertise in, and engaged partners on, but has not been incorporated into our existing collaboratively developed watershed management plan. Our existing watershed plan was completed as part of a separate WaterSMART Cooperative Watershed Program Phase I project in 2019. This project will expand that plan to meet the evolving needs of our watershed and community. Each of the following activities will address a different component of wildfire risk to natural resources which are not currently addressed in our watershed management plan – grasslands, residential properties, social barriers to risk reduction, and expansion of stakeholder involvement in healthy headwaters locations.

While fire has long been a topic of conversation in the forested parts of our watershed, the Marshall Fire led Boulder County resident and managers to focus more on thoughtful grasslands management as critical to creating fire-adapted communities. In response, The Watershed Center, in collaboration with The Boulder County Fireshed Grasslands Working Group, developed a story map titled "Grassland Management in Boulder County: Challenges and opportunities following



the Marshall Fire" as a tool for better public engagement about ongoing management in Boulder County. Moving forward, we will coordinate grasslands scientists and managers to identify and address current gaps in knowledge, define characteristics of grasslands that meet multiple objectives (e.g., habitat, reduced wildfire risk, etc.), and identify when different management techniques may be most effective in reaching desired outcomes. This information will address a gap in The Watershed Center's current watershed management plan, and will be incorporated so that the management plan is holistic and addresses the evolving needs of managers and residents. In addition, we will continue to address emergent outreach needs by creating additional educational materials and opportunities for the public.

In addition to expanding our outreach from the forests to the grasslands, we also recognize the need to reach community members who are not already engaged in fire mitigation or do not have the ability to come to events. To address this current gap in our programming, we will partner with the Wildfire Research Center (WiRe) to conduct systematic data collection across the Partnership's geography to understand parcel-level risk and community perceptions of risk and mitigation through a paired rapid assessment and household survey. The WiRē Approach includes two data collection efforts: 1) a rapid wildfire risk assessment based on attributes related to building materials, vegetation near the home, background fuels and topography, as well as access for the fire department to the parcel, and 2) social surveys of the residents of the assessed parcels to investigate homeowners' perceptions of wildfire risk, risk mitigation behaviors, barriers that decrease residents' abilities to conduct mitigation, and responses to incentives to mitigate risk. These data will help guide a fine-scale understanding of how wildfire risk varies across our communities and will provide evidence-based strategies for improving community/watershed wildfire resilience. This effort is especially critical as most wildfire risk assessments treat residential parcels as a "black box", wherein all properties have the same risk. However, we know that risk varies within communities, and understanding patterns of risk at a finer scale is incredibly useful to both emergency responders and mitigation practitioners.

Lastly, there is a need to expand our outreach in our river restoration planning. We have completed over 20 river restoration projects, and have built and maintained extensive partnerships with water districts and providers, municipalities, and landowners across the St. Vrain Sub-Basin. However, there is a need to improve our outreach and engagement in healthy headwater locations. Specifically, we will conduct outreach in areas where there is potential for low-tech, process-based restoration with additional stakeholder groups (e.g., Healthy Headwaters Working Group, Beaver Institute), resource managers, and landowners.

Deliverables: Report on outreach conducted, 1-3 informational tools, and data reports on household survey and rapid assessments conducted with the Wildfire Research Center.

Task B: Watershed Restoration Planning

We will lead a watershed scale analysis and project prioritization effort for the St. Vrain Sub-Basin to identify, prioritize, and develop project plans for healthy headwaters river restoration that are complementary to forest mitigation projects. We will conduct analyses to prioritize river



restoration projects aimed to reduce wildfire impacts to communities and values. Specifically we will lead an advisory group related to post-fire sediment deposition. We will then evaluate sites identified as potential areas for sediment capture in those analyses. Our assessments will catalog ecological conditions, access, and community interest in restoration. Takeaways from these site visits will be used to prioritize a list of potential river restoration projects.

To ground-truth our modeling efforts, and to inform broader planning about the trajectory of watershed health over time, we will continue our long-term monitoring efforts across the St. Vrain Basin. In the rivers, we will conduct ecological monitoring to understand how watershed health is changing with the climate and other disturbances. Data collection will include vegetation, benthic macroinvertebrates, instream habitat, and sediment assessments at more than 30 river sites. These data will be used to define broader watershed conditions and help inform where river restoration projects will be most beneficial. In the forests, we will develop and begin to implement a robust monitoring program for forestry work across both private and public lands, including monitoring sites that have not had mitigation projects occur so that we can track forest trajectories across both treated and untreated sites. This effort is especially important in lodgepole pine dominated forests, where there is considerable disagreement in the scientific and management communities about best management practices related to wildfire mitigation. Findings from data collection in both the forests and rivers will be used to inform future project prioritization and development. We will share the results of each effort publicly and with our partners.

Deliverables: Quarterly collaborative meetings, and a report which includes monitoring data and a prioritized list of potential river restoration projects to inform broader watershed management planning effort.

Task C: Watershed Management Project Design

We will develop basis of design for two to three key river restoration projects identified through collaboration and monitoring under Tasks A and B. Work under this task will include developing 10-30% basis of design reports that incorporate diverse stakeholder input through two review opportunities. We will develop plans by hiring a consultant team to support pre-planning for development of conceptual designs and introductory environmental compliance plans. We will work with stakeholders and consultant teams to identify realistic timelines, milestones, and cost estimates for high priority projects. Designs will focus restoration features that build post-fire impact resilience in river systems and employ low-tech processed based approaches where possible.

Deliverables: Basis of designs (including cost estimates, timelines, milestones, environmental compliance plans, and cost estimates) for 2-3 projects. Specific projects and sites will be identified using information from Tasks A and B.



E.1 Evaluation Criteria

E.1.1 Evaluation Criterion A – Watershed Group Diversity and Geographic Scope

E.1.1.1 Sub-criterion No. A1. Watershed Group Diversity

1. For New and Existing Watershed Groups, a description of the stakeholder groups (e.g., agriculture, municipal, recreation, environmental, Tribal) within the watershed that affect or are affected by the quantity or quality of water within the watershed ("affected stakeholders"). Describe their role in the watershed and how they interact with the water resources and identify specific organizations, entities, or individuals that make up these groups.

Each person that lives, works, or recreates in the St. Vrain Sub-Basin falls in the category of "affected stakeholder." As a stakeholder driven organization, engaging our community in collaborative processes to plan, prioritize, and implement projects is the foundation our approach to building watershed health and resilience. We will use this same approach to complete this project. Specific affected stakeholder groups in the St. Vrain Sub-Basin include agriculture, land development, recreation, environment, municipal water supplies, private property owners, and governments (state, local, and federal).

2. For Existing Watershed Groups, an explanation of the specific individuals, entities, and organizations already participating in the watershed group and whether the current participation is representative of the affected stakeholders within the watershed. In other words, if the watershed group is already diverse, please provide support demonstrating the diversity of the group. Provide a description of the stakeholders that are involved, what their involvement in the group entails, and reference any letters of support or pledges/donations from affected stakeholders and how.

Affected stakeholders currently represented on the Watershed Center's Board of Directors include diverse representatives from our community across a range of sectors and interests. These include landowners and residents, Left Hand Water District (LHWD), Boulder County, City of Longmont, City of Boulder, Town of Lyons, St. Vrain and Left Hand Water Conservancy District, Town of Jamestown, Left Hand Ditch Company (LHDC), Trout Unlimited, and Colorado Division of Reclamation and Mining. The diversity of stakeholders represented on our Board reflects our inclusive approach for stakeholder collaboration and our value of having open communication and cooperation among all affected stakeholders in the watershed.

Beyond our board, the diversity of stakeholders that The Watershed Center engages is exemplified by our leadership of the <u>St. Vrain Forest Health Partnership</u> and <u>Adaptive Management at Scale</u> <u>Project</u>. With both efforts The Watershed Center brings together stakeholders and community members with diverse backgrounds and interests to partner and coordinate on adaptive management, including planning, projects, monitoring, reporting, and adjusting. The St. Vrain Forest Health Partnership focuses on forest management and includes more than 100 stakeholders and community members working toward community and ecosystem resilience to wildfire and climate change. Adaptive Management at Scale includes more than 50 members who manage and



monitor watershed health in the St. Vrain Sub-Basin and are working together to develop and implement a shared monitoring framework.

Affected Stakeholder	Interest Area	Support letter?
Boulder County	Watershed-wide health; Community outreach support.	Yes
City of Boulder	Watershed health on City of Boulder properties; Understanding their properties in the context of the greater watershed; Adaptive management.	Yes
City of Longmont	Watershed health in St. Vrain sub-watershed.	Yes
U.S. Forest Service	Upland watershed health and fire resilience; Balanced stewardship and use of public lands	Yes
Colorado State Forest Service	Watershed health related to fire resilience.	Yes
Trout Unlimited	Recreation; Water quality and quantity; Fish habitat.	Yes
St. Vrain &Left Hand Water Conservancy District	Watershed health in St. Vrain sub-watershed; Agriculture; Recreation; Water rights issues; Expanding our mission and geography.	Yes
Town of Lyons	Watershed health in St. Vrain sub-watershed; Expansion of our mission and geography.	Yes
Left Hand Water District	Municipal; Watershed health in Left Hand Creek; Mining.	Yes
Division of Mining Reclamation and Safety	Water quality; Mining issues; Expanding our mission and geography.	Yes
Town of Jamestown	Watershed health on City of Boulder properties; Understanding their properties in the context of the greater watershed; Adaptive management.	Yes

3. For New and Existing Watershed Groups, if the group does not already represent the full stakeholder diversity of the watershed, provide details on how you plan to target affected stakeholders to ensure that your group will represent a diverse set of stakeholders within the watershed, such as engaging in outreach to include new members, or collaborating with different groups or partners (e.g., outreach or partnership activities, public meetings, newsletters, marketing materials, or recruitment of new members).

When working with specific individuals and organizations, our primary approach for targeting affected stakeholders will be through individual face-to-face meetings. Our work establishing two robust collaboratives (described above; the St. Vrain Forest Health Partnership and Adaptive Management at Scale) has demonstrated that this approach is the most effective way to build trust needed for successful collaboration and partnership. Therefore, our focus in targeting new affected stakeholder as part of this project will be to meet individually with each stakeholder at a time and location that works best for them.



To reach new audiences, we will conduct a household survey in communities across the St. Vrain Watershed, as described in the Project Description Task A. We will also provide public engagement events, which range from field tours, community meetings, and webinars to hands-on stewardship events.

We will also utilize our existing ArcGIS Story Maps, social media accounts, e-mail campaigns, and newsletters to communicate information to a new and diverse audience. Our current mailing list includes over 1,000 recipients. We will build this and leverage our partners' mailing lists to maximize outreach efforts to new affected stakeholders.

4. For Existing Watershed Groups, a description of the structure of the watershed group, and for New Watershed Groups, a description of the anticipated structure of the watershed group. Is there a formal membership process or is participation more informal? If a formal membership process exists, ensure your responses under this criterion make it clear which watershed group participants are formal members and which act as partner organizations. How are decisions made within the watershed group? Does a board of directors make decisions or are decisions made on a consensus basis? If the watershed group has a board of directors, how are board members chosen?

Our Board includes representatives of Left Hand Water District (LHWD), Boulder County, City of Longmont, City of Boulder, Town of Lyons, St. Vrain and Left Hand Water Conservancy District, Town of Jamestown, Left Hand Ditch Company (LHDC), Trout Unlimited, and Colorado Division of Reclamation and Mining. Decisions within the watershed group are made via a collaborative process that includes staff and the Board of Directors (Board). Board member selection is outlined in The Watershed Center's By-Laws. Per the bylaws, the Board shall include a representative from each of the six following agencies: Town of Lyons,, the Town of Jamestown, the Left Hand Water District, Boulder County, the City of Longmont, and the Saint Vrain and Left Hand Water Conservancy District. Each of these agencies appoints a representative to the Board. Per the bylways, the Board may select additional members that have a demonstrated interest or technical expertise in watershed issues. These additional members submit an application and are selected each year a majority vote of the Board. The Board meets monthly. At each meeting, staff provides updates on the status and progress of all projects, program, and organizational initiatives. Staff and the Board identify any decisions that require Board input. Staff presents information to the Board and the Board votes on the decision. All decisions made by the Board must be approved at an official Board meeting by a simple majority of the Board members present.

The Watershed Center leads two formal collaborative groups, which each have their own Charters that define roles and responsibilities for partner engagement (The St. Vrain Forest Health Partnership, and Adaptive Management at Scale). New partners that are not named in the charter are welcome, and engagement can be informal or formal. Many partners also provide program funding. Formal members of our Adaptive Management at Scale program include Mile High Flood District, City of Boulder, City of Longmont, St. Vrain and Left Hand Water Conservancy District, Keep it Clean Partnership, and Boulder County. Members of the St. Vrain Forest Health Partnership include but are not limited to: U.S. Forest Service, Natural Resource Conservation Service, Boulder County, Boulder Valley and Longmont Conservation Districts, Colorado State



Forest Service, City of Longmont, Rocky Mountain National Park, Colorado Forest Restoration Institute, Left Hand Fire Protection District, St. Vrain and Left Hand Water Conservancy District, Town of Lyons, Allenspark Fire Protection District, Lyons Fire Protection District, Left Hand Water District, Cal-Wood Education Center, Colorado Parks and Wildlife, American Forest Foundation, Town of Jamestown, and several community member representatives. Participation is open to the public.

5. Any other support demonstrating that the watershed group will include a diverse membership.

Diverse membership is inherent to our mission. Across all our work, community is at the heart of what we do. Our communities are a part of this landscape, not separated from it. Every person that engages in these efforts brings unique perspectives and skillsets that make our work better and more sustainable. Thankfully, our watershed is home to countless scientists, practitioners, and community members willing to devote time, knowledge, and resources to the goal of improving and applying climate adaptation strategies in our watersheds. We value and respect all community members and beneficiaries of the watershed, and meaningfully demonstrating this is part of our organizational values defined in our 2023 Strategic Plan. Some specific examples of ways we are currently expanding our membership are:

- Bridging the practitioner-researcher divide. We collaborate with university partners to incorporate experimental designs into our watershed restoration projects. In the St. Vrain Forest Health Partnership, we have a Science Team that includes research scientists and resource managers who create adaptive management processes and support the use of best-available science in management.
- Exploring avenues for including Indigenous peoples in the St. Vrain Forest Health Partnership. We have connected with a local elder, and are trying to work with existing organizations such as The Nature Conservancy's Indigenous Peoples Burning Network.
- Collaborating with the agricultural community, and seeking opportunities to achieve environmental benefits while supporting agriculture. We have demonstrated this by developing a close partnership with our local ditch company and we relish the opportunity to continue finding ways for environment and agriculture to collaborate, build trust, and partner to implement on-the-ground project that meet multiple goals.



E.1.1.2 Sub-criterion No. A1. Geographic Scope

1. Provide a map illustrating the geographic boundaries of the area in which the watershed group will work.



Figure 1. Location of the St. Vrain Sub-Basin, St. Vrain Creek Watershed, and Boulder Creek Watershed within the State of Colorado.





Figure 2. Map with locations of affected stakeholders.

2. The map should also identify the location or boundaries of the stakeholder groups within the area and indicate which stakeholders are currently involved in the group and which will be targeted through outreach. If a map of stakeholder locations cannot be provided, please describe the geographic scope of the area to the best of your knowledge, including where specific stakeholders are located within the watershed.

See Figure 2 for map of stakeholder locations, and below for a table of affected stakeholders with their associated geographic interest areas.

Affected Stakeholder	Geographic Interest Area
Private Landowners & Community	Entire planning area (St. Vrain Sub-Basin)
Boulder County	Entire planning area (St. Vrain Sub-Basin), with focus
	on County owned properties
City of Boulder	Entire planning area (St. Vrain Sub-Basin), with focus
	on City of Boulder owned properties.
City of Longmont	Entire planning area (St. Vrain Sub-Basin), with focus
	on City of Longmont owned properties.
Mile High Flood Control District	Boulder Creek Watershed Service Area includes the
	lower portions of Boulder Creek.
Keep It Clean Partnership	Entire planning area (St. Vrain Sub-Basin)



U.S. Forest Service	Western portion of St. Vrain Sub-Basin, with focus on
	USFS owned properties.
Colorado State Forest Service	Western portion of St. Vrain Sub-Basin, with focus on
	State Lands owned properties and private properties.
Trout Unlimited	Entire planning area (St. Vrain Sub-Basin)
Colorado Forest Restoration	Western portion of St. Vrain Sub-Basin and beyond
Institute	
St. Vrain and Left Hand Water	St. Vrain & Left Hand Creek Watershed, which
Conservancy District	encompasses the northern portion of the St. Vrain Sub-
	Basin
Colorado Department of Public	Entire planning area (St. Vrain Sub-Basin)
Health & Environment	
Town of Lyons & Lyons Schools	St. Vrain Creek and tributaries
St. Vrain Creek Coalition	St. Vrain Creek and tributaries
Left Hand Ditch Company	Left Hand Creek
Northern Water	Entire planning area (St. Vrain Sub-Basin) and beyond
Division of Reclamation Mining	Entire planning area (St. Vrain Sub-Basin) and beyond
and Safety	
University of Colorado Boulder and	Entire planning area (St. Vrain Sub-Basin) and beyond
Colorado State University- Fort	
Collins	
Town of Jamestown	James Creek Watershed
Left Hand Water District	Left Hand Creek Watershed
Fire Protection Districts	Cover entire project area (St. Vrain Sub-Basin)

3. Describe the extent to which the planned membership of the watershed group will represent the full geographic scope of the area in which the group intends to work. If applicable, describe the extent to which the watershed group already represents the geographic scope of the area.

Through our robust Board of Directors and collaborative leadership and engagement, our work represents the full geographic scope of the project area in addition to the many stakeholder groups represented. However, when conducting outreach with the public, we have traditionally focused on forested areas with larger acreage and river systems in the transition and plains zones. The proposed project will expand our program of work to encompass the diversity of communities and ecosystems across this sub-basin. We are proposing to work across the St. Vrain Sub-Basin to enhance and broaden our programming in the grasslands, closer to homes and communities in the forests, and rivers in the headwaters in response to a need for additional public outreach and education due to the Marshall Fire and an increased risk of wildfire around headwaters.

4. Describe the efforts that you will undertake to ensure that the watershed group will target stakeholders that represent the full geographic scope of the area in which the watershed group will work. For example, will outreach focus on stakeholders in a certain part of the watershed the have historically not been represented in the watershed group.



We will engage new stakeholders through expansion of outreach in grasslands, rivers in the headwaters, and surveys that reach community members who are not already engaged in wildfire mitigation and planning.

In the grasslands, we will develop new outreach tools for community members, bring together grasslands managers and scientists, and provide education opportunities for broad audiences.

In our wildfire programming, there is a need to engage with community members that don't have the time, means, or ability to attend in-person meetings and/or are not already aware of wildfire. Thus, we will utilize the household survey described to ask a broad array of residents how they want to receive information, what kind of information they want, and their current barriers to mitigation. The Wildfire Research Center's survey response rates range from ~25%-~65%, so we feel confident that we will be able to reach and hear from a more diverse audience that has not been historically engaged.

In the rivers, we will conduct site visits in sub-watersheds that have historically received less attention in watershed management planning efforts due to access impediments and knowledge gaps surrounding issues facing these areas. Despite these challenges, our momentum in our forest programming has resulted in additional relationships in healthy headwaters locations that we can now build upon for river restoration. We will also identify and build relationships with stakeholder groups and community members that we have not engaged with previously through targeted outreach efforts. Our approach which will vary from in-person meetings to mailers with the goal of decreasing barriers to engagement for groups and individuals that are underrepresented in management planning.

5. Describe why you have chosen to work within the watershed area you described. For example, if the watershed group is only working along the river corridor, describe why they are not working within the larger watershed area.

The St. Vrain Sub-Basin is a national priority. This area sits within a priority landscape in the Wildfire Crisis Strategy, and is denoted as a High Risk Fireshed by the U.S. Forest Service. This landscape is one of 10 locations across the Country that were chosen for initial investments from the Bipartisan Infrastructure Law in 2022.

E.1.2 Evaluation Criterion B – Developing Strategies to Address Critical Watershed Needs

E.1.2.1 Sub-criterion No. B1. Critical Watershed Needs or Issues

Climate change and climate change-driven drought, wildfires and post-fire impacts are the most pressing threats that impact water supply, water quality, and watershed health in the St. Vrain Sub-Watershed. These threats are expected to increase in frequency and intensity. This proposed project will build resilience to climate change, drought, and wildfire in communities, rivers, and forests.

Climate-driven wildfire and drought

Climate change and long-term drought threaten water availability, water reliability, and overall watershed health. Though the St. Vrain Sub-Basin did not experience drought conditions in 2023,



this area has been in a long-term drought along with much of the American West for several decades. Drought, along with altered water availability due to changing precipitation patterns are influenced by climate change (EPA 2016). Climate change is expected to lead to more precipitation falling as rain rather than snow, as well as earlier snow melt. This means that the timing of peak high flows will shift to earlier in the year and less flow later in the year. These challenges are made even more apparent during low water years and low flow conditions, which occur from October to April.

In addition to effects on water supplies, climate change is projected to lead to greater fire frequency and intensity, including in areas that have historically had infrequent fire (e.g., upper montane zone). The St. Vrain Sub-Watershed is at risk from high-severity wildfire and post-fire impacts, as measured by multiple tools. Using the Colorado State Forest Service's (CSFS) Wildfire Risk Viewer, the St. Vrain Sub-Watershed has a "high" to "highest" probability of burning. If a fire were to start, it is expected to burn at a high intensity in most areas. With this tool, most communities have a "very high" Building Damage Potential, although collecting rapid risk assessments for residential parcels as proposed will provide us with much more granular and actionable information. The Northern Colorado Fireshed Wildfire Risk Assessment developed by the Colorado Forest Restoration Institute (CRFI) incorporates modelled burn probabilities and relative importance weights of values at risk to identify high-risk areas. This tool projects elevated risk to water resources in the St. Vrain Sub-Basin (CFRI Wildfire Risk Assessment).

Post-wildfire impacts to communities, water resources, and forests

Many residents in our watershed are at high risk during wildfire events. Much of our population exceeds 65 years of age and there is poor egress availability to many homes and communities (one way in/out). Without systematic data collection of the condition of residential parcels, we do not currently have a full understanding of how risk varies across our built environment. In 2021, the Marshall Fire started in the grasslands and became a house-to-house fire, and cause enormous damage due to extreme fire weather conditions (which are forecasted to increase in frequency with climate change). Two people and over 1,000 pets lost their lives, and 1,084 structures were damaged. Many residents were under-insured, and the estimate of damage exceeded \$2 billion.

Decreased post-fire regeneration, and potential ecosystem transformations from forest to grassland, is expected to occur with greater frequency and intensity due to climate-driven unfavorable growing conditions post-fire. For example, the Calwood and Left Hand Fires burned more than 10,000 acres of forest in 2020 in the Left Hand Creek and St. Vrain Creek watersheds. Due to the high-severity of the fires and poor growing conditions post-fire due to a warmer and drier climate, large-scale regeneration of trees has not been observed, and the ground is still dominated by bareground and non-native, weedy species (<u>The Watershed Center 2022</u>).

Impacts from wildfires can also make water management more difficult, affecting municipal and agricultural water users, and can also alter ecosystem processes, affecting watershed health. High-severity wildfires can alter runoff and erosion processes in watersheds, leading to increased risk of flooding, debris flows, and soil erosion (Moench and Fusaro 2023). High severity wildfires are



characterized by near-complete to complete mortality of overstory and understory vegetation. Hydrophobic soils are commonly found in areas devastated by high-severity fires and are caused by extremely high temperatures searing the soil surface (Brooks). Hydrophobic soils, coupled with the lack of vegetation acting as erosion control, lead to large amounts of sediment inputs into downstream waterways. Sediment collects around water infrastructure, especially when bypass channels were not constructed efficiently, causing higher maintenance costs to dredge excess sediment. Increased sediment inputs into rivers after wildfires are a major concern to water managers because it increases the maintenance and cost of water delivery.

Increased sediment inputs also impact lower trophic level species that use the interstitial space between rocks in rivers as habitat as well as all the species that depend on those lower trophic level species as prey, which can impact overall food web stability and watershed health. In 2020, the Calwood and Left Hand Fires led to increased sediment loads and negative impacts to the benthic macroinvertebrate communities, which form the basis of the aquatic food web, in Left Hand Creek and South St. Vrain Creek in subsequent years (<u>The Watershed Center 2022</u>). Similar to decreases in predator fish populations causing cascading effects in aquatic ecosystems, removal of lower trophic level species impacts all species in the food web that rely on those species for prey.

E.1.2.2 Sub-criterion No. B2. Project Benefits

This project will help mitigate the effects of climate change, wildfire, flood, and drought for the benefit of all affected stakeholders through:

Community climate adaptation (Task A)

- Providing meaningful education and engagement opportunities for the public in resource/risk management planning under current and future climate scenarios (a key pathway noted in <u>NOAA's Community Resilience Theory of Change framework</u>).
- Collecting social survey and risk data that will drive wildfire risk mitigation programming so that it is responsive to the needs of, and diverse conditions within, the community. For example, we may learn that financial resources or physical ability is a frequently reported barrier to mitigation for community members. With this knowledge, we will use our resources more effectively and efficiently, with greater benefits for the community by targeting our programming to meet resident needs.

Adaptive management (Task B)

- Collecting ecological monitoring data that will inform which forest and river management activities lead to improved climate resilience. This includes identifying locations on the landscape that may act as refugia for climate-sensitive species and buffers for reducing risk to water resources in future climates.
- Providing insight through ecological monitoring that can inform best management planning for the watershed and uncover emergent needs for management under future climate scenarios.



• Using data to ground-truth modeling efforts which identified areas with opportunity for river restoration to increase sediment capture, which will improve water security and defray post-disaster costs by enhancing the resilience of our water resources to fire and flood.

River restoration (Task C)

- Increasing floodplain connectivity and complexity, which is critical for attenuating fluxes during high flows and provides better habitat for wetland and riparian vegetation for improved water quality. A higher functioning surrounding riparian area will be more resilient against disturbances like floods, wildfires, and drought, which will help nearby water infrastructure function properly in a wildfire scenario.
- Reducing wildfire risk in a watershed that supports water supply for 295,500 people who depend on the watershed for its economic, ecological, recreational, and historical values.
- Improving habitat and benefit endangered or threatened species identified by US Fish and Wildlife Service and state species of concern identified by Colorado Parks and Wildlife. These may include American Peregrine Falcon, Bald Eagle, Mexican Spotted Owl, Lake Chub, Greenback Cutthroat Trout, Canada Lynx, North American Wolverine, Northern Leopard Frog, Preble's Meadow Jumping Mouse, North Park Phacelia, River Otter, and Ute Ladies'-tresses.

Applicants proposing activities under Task C: Watershed Management Project Design

1. To the extent known, describe the project(s) for which the watershed group will complete a design.

We anticipate developing proposed basis of designs will be for 2-3 river restoration projects all aimed to increase geomorphic and ecological resilience and reduce impacts from wildfire on adjacent and downstream water resources, communities, homes, and infrastructure. Projects will be identified through a collaborative and watershed-scale technical analysis that evaluates wildfire risk, opportunities, and community values. The designs will employ nature-based, low tech processed based features where possible to achieve project goals. The designs will also incorporate considerations for project impacts on multiple uses such as impacts to existing water rights or recreation.

2. What type of site-specific project design and engineering will the watershed group complete?

The Watershed Center will complete concept-level (10-30%) basis of design for 2-3 priority river restoration projects as described in Task C: Watershed Management Project Design. Designs will be developed by professional consultants with technical expertise in watershed restoration, design, and nature-based solutions. Given the three-year timeframe and the extensive outreach and technical assessment associated with Tasks A and B, we anticipate only reaching a concept-level design for 2-3 priority projects but expect that supporting information provided by the consultants will include timelines, milestones, and cost estimates that will set us up for obtaining future funding for completing construction designs and implementation.



3. To the extent possible, describe and quantify the potential benefits of the watershed management project that would result from the design process.

We anticipate that the prioritized project areas and designs will be for river reaches in the upper Left Hand and St. Vrain watersheds. As such, the project geomorphic, ecological and wildfireimpact reduction goals will benefit more than 400 square miles of downstream watershed area. These projects will reduce wildfire risk in a watershed that supports water supply for 295,500 people who depend on the watershed for its economic, ecological, recreational, and historical values. These projects will also improve habitat and benefit endangered or threatened species identified by US Fish and Wildlife Service and state species of concern identified by Colorado Parks and Wildlife. These may include American Peregrine Falcon, Bald Eagle, Mexican Spotted Owl, Lake Chub, Greenback Cutthroat Trout, Canada Lynx, North American Wolverine, Northern Leopard Frog, Preble's Meadow Jumping Mouse, North Park Phacelia, River Otter, and Ute Ladies'-tresses.

E.1.3 Evaluation Criterion C – Readiness to Proceed

1. Include a preliminary project schedule that shows the stages and duration of the proposed work including major tasks, milestones, and dates. For each task and milestone, indicate who will have the primary responsibly for completion. Proposals that provide a detailed project schedule broken down by tasks and subtasks with identified milestones will be prioritized.

Milestone/Task/Activity	Planned Start Date	Planned Completion Date	
Task A			
Milestone: Report on outreach conducted			
Track engagement with affected stakeholders	1/2025	12/2027	
Compile report on outreach conducted	1/2025	12/2027	
Milestone: 1-3 informational tools			
Identify education needs	1/2025	4/2025	
Develop draft informational tools	5/2025	5/2026	
Solicit partner feedback on draft informational tools	5/2026	12/2026	
Finalize, publish, and distribute informational tools	1/2027	12/2027	
Milestone: Report on data collected with the Wildfire Research Center			
Identify study areas collaboratively with partners	1/2025	3/2025	
Conduct rapid wildfire risk assessments	4/2025	8/2025	
Solicit partner feedback on draft household survey (already developed by the Wildfire Research Center)	6/2025	8/2025	
Distribute household survey	9/2025	12/2025	

For all of the below tasks, The Watershed Center will be responsible for ensuring completion.



Receive household survey summary from the Wildfire Research Center	4	/2026
Present findings to affected stakeholders, including partners and community members	5/2026	12/2026
Incorporate findings to improve program efficacy	4/2026	12/2027
	Task B	
Milestone: Report with monitor	ring data and prioritized	list of river projects
Collect data to ground-truth models	1/2025	12/2025
Draft list of prioritized river restoration project list	1/2026	3/2026
Conduct site visits with partners at potential project locations	3/2026	6/2026
Develop final list of prioritized restoration projects	6/2026	9/2026
Collect ecological monitoring data in rivers and forests	5/2025	12/2027
Analyze monitoring data	9/2025; 9/2026	12/2025; 12/2026
Develop report	1/2026; 1/2027	5/2026; 5/2027
Distribute report to affected stakeholders	6/2026; 6/2027	12/2026; 12/2027
Milestone: Collaborative meetings		
Develop annual plan for collaborative meetings based on needs	Annually in January	Annually in January
Schedule meetings with affected stakeholders	Quarterly	Quarterly
Solicit partner feedback	Quarterly	Quarterly
Identify lessons learned	Quarterly	Quarterly
	Task C	
Milestone: Basis of design for river restoration projects		
Engage key partners in concept design development	9/2026	12/2027
Hire design firm for basis of design development	11/2026	2/2027
Develop basis of designs for 2-3 priority river restoration projects	2/2027	12/2027
Solicit partner feedback on two draft design iterations for each design	2/2027	12/2027

2. Describe any new policies or administrative actions required to implement the plan or project being designed.

There are no new policies or administrative actions needed to implement the proposed project.



E.1.4 Evaluation Criterion D – Presidential and Department of the Interior Priorities

E.1.4.1 Sub-criterion No. D1. Climate Change

Please provide specific details and examples on how the project will address the impacts of climate change and help combat the climate crisis.

Addressing climate change is a key component to, and benefit of, the proposed project. This project will support climate-adapted communities and ecosystems. Examples of ways this project will help combat the climate crisis include, but are not limited to:

- Providing meaningful education and engagement opportunities for the public in resource/risk management planning (a key pathway noted in <u>NOAA's Community</u> <u>Resilience Theory of Change framework</u>).
- Collecting social survey and risk data that will drive wildfire risk mitigation programming so that it is responsive to the needs of, and diverse conditions within, the community. For example, we may learn that financial resources or physical ability is a frequently reported barrier to mitigation for community members. With this knowledge, we will use our resources more effectively and efficiently, with greater benefits for the community by targeting our programming to meet resident needs.
- Collecting ecological monitoring data that will help us understand which forest and river management activities lead to improved climate resilience. This includes identifying locations on the landscape that may act as refugia in future climates.
- Providing insight through ecological monitoring that can inform best management of the watershed under multiple future climate scenarios.
- Using ground-truthing to identify areas with opportunity for river restoration to increase sediment capture, which will improve water security and defray post-disaster costs by enhancing the resilience of our water resources to fire and flood.

Does this proposed project strengthen water supply sustainability to increase resilience to climate change? Does the proposed project contribute to climate change resiliency in other ways not described above?

This project will result in river project concepts that will strengthen water supply sustainability through features like increased floodplain connectivity, which is critical for attenuating fluxes during high flows, providing better conditions for wetland and riparian vegetation for improved water quality. A higher functioning surrounding riparian area will be more resilient against disturbances like floods, wildfires, and drought, and will help nearby water infrastructure function properly.

Further, public engagement in wildfire mitigation throughout the watershed, as described in Task B, will help to increase social license for forest management activities on private and public lands. Improved public license will help lead to more and better projects, which will reduce the severity of future wildfires thus helping to decrease severe sediment deposition into waterways.



E.1.4.2 Sub-criterion No. D2. Disadvantaged, Underserved, and Tribal Communities

1. Please use the White House Council on Environmental Quality's interactive Climate and Economic Justice Screening Tool, available online at Explore the map – Climate & Economic Justice Screening Tool (https://screeningtool.geoplatform.gov) to identify the disadvantaged communities that will benefit from your project.

The White House Council on Environmental Quality's interactive Climate and Economic Justice Screening Tool shows three tracts (ID #s: <u>08013013505</u>, <u>08013013401</u>, and <u>08013012707</u>), representing nearly 10,000 residents from unincorporated Boulder County and the City of Longmont, that are considered disadvantaged.

2. If applicable, describe how the proposed project will serve or benefit a disadvantaged or underserved community, identified using the tool described above.

This project will benefit these communities by improving public health and safety through addressing wildfire impacts to infrastructure, communities, water supplies, and health (e.g., smoke exposure). Additionally, this project will benefit recreation, which is a large part of the local culture and economy. Through social surveys, we will also learn the barriers that residents are facing to conducting wildfire mitigation, which will enable organizations across the St. Vrain Sub-Basin to better support our communities through an equity lens.

3. Does the proposed project directly serve and/or benefit a Tribe?

This project will not directly serve or benefit a Tribe.

4. Does the proposed project support Reclamation's Tribal trust responsibilities or a Reclamation activity with a Tribe?

No.

D.2.2.3 Project Budget

Table 1 below summarizes all funding sources. A budget narrative is included as an attachment.

Table 1 – Summary of Non-Federal and Federal Funding Sources

FUNDING SOURCES	AMOUNT
Non-Federal Entities	
None	\$
Non-Federal Subtotal	\$0
REQUESTED RECLAMATION	\$299,156
FUNDING	



D.2.2.4 Environmental and Cultural Resources Compliance

- Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.
 - During this planning phase, we do not anticipate affecting the surrounding environment. All planning work will include passive observation and work will be restricted to foot traffic only.
- Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?
 - A list of threatened or endangered species is provided in our application. During this planning phase, we do not anticipate directly affecting these species as all work will include passive observation of habitat and will be restricted to foot traffic only
- Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "Waters of the United States"? If so, please describe and estimate any impacts the proposed project may have.
 - Yes, there are wetlands in the project boundaries. During this planning phase, we do not anticipate directly affecting wetlands. Planning work will be restricted to foot traffic.
- When was the water delivery system constructed?
 - The St. Vrain Sub-Basin has many different water delivery systems throughout the entire watershed. Some are more recent, but older structures date back to the 1860s.
- Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.
 - During this planning phase, we do not anticipate modifying any irrigation features, although planning effort may involve developing plans for modifications as part of the project process with full cooperation from ditch companies and in compliance with all laws.
- Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.
 - Yes, we do anticipate that there are buildings, structures, or features eligible for listing on the National Register of Historic Places. There will be no impact to structures during this planning phase of the project; however, we will work with cultural resource specialists to identify buildings, structures, or features of historic significance in potential project areas during project planning.



- Are there any known archeological sites in the proposed project area?
 - Yes, we know that there are archeological sites identified in the Boulder County Comprehensive Plan. There will be no impacts to these sites during this projectplanning phase, as we will avoid sensitive areas and restrict work to foot traffic only. In addition, as part of planning for future restoration projects, we will work with experts to identify and avoid project sites with archeological artifacts.
- Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?
 - o No.
- Will the proposed project limit access to, and ceremonial use of, Indian sacred sites or result in other impacts on tribal lands?
 - No work will occur on Tribal lands.
- Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?
 - No, this planning project will identify ways to reduce the spread of noxious weeds because it is a key issue for stakeholders.

D.2.2.5 Required Permits or Approvals

At this planning phase, permits and approvals are not required. We will explore the need for permits and approvals as part of the projects in preparation for future implementation phases. For the household survey being administered under Task A, the Wildfire Research Center will obtain IRB approval as necessary. The Watershed Center will not obtain identifiable survey data at any stage, and will only receive reports of aggregated data from the Wildfire Research Center.

D.2.2.6 Overlap or Duplication of Effort Statement

There is no overlap between the proposed project and any other active or anticipated proposals or projects in terms of activities, costs, or commitment of key personnel.

D.2.2.7 Conflict of Interest Disclosure Statement

We have no conflicts of interest to report.

D.2.2.8 Uniform Audit Reporting Statement

The Watershed Center was not required to complete a Single Audit in 2022 and is not be required to complete a Single Audit in 2023 because we did not expend \$750,000 USD or more in Federal



award funds in either year. The Watershed Center completes an annual audit in accordance with auditing standard generally accepted in the United States of America (GAAS) and the standard applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General on the United States.

D.2.3. Unique Entity Identifier and System for Award Management

The Watershed Center is registered and active with SAMs. Our DUNS number is 164605615 and our CAGE Code is 7JZ49. We have included a copy of our active registration page. We currently receive other federal funds and are therefore confident that we will be maintaining an active SAM registration.



Appendix 1: D.2.2.10 Letters of Support



Boulder Ranger District

2140 Yarmouth Avenue Boulder, CO 80301 303-541-2500 Fax: 303-541-2515

File Code: Date: December 4, 2023

RE: Letter of Support for The Watershed Center's Proposal – Climate Resilience Planning and Community Engagement from the Headwaters to the Plains

Dear Review Committee,

I am writing to provide enthusiastic support of the grant application being submitted by The Watershed Center, titled "**Climate Resilience Planning and Community Engagement from the Headwaters to the Plains.**" Completion of this project is vital to our watershed and the communities within as we work to enhance the resilience of our forests, grasslands, and rivers to climate change and wildfire.

The proposed project will expand community and stakeholder engagement across the forests, rivers, and grasslands; track watershed health across forests and rivers; and develop concept designs for river restoration projects. Together, these efforts will result in a greater diversity of engaged community members across a broader geography, inform our understanding of how watershed health is responding to disturbances such as climate change and wildfire, and result in project designs that will improve ecosystem resilience to those disturbances. This project is distinctive in that it will provide useful information and momentum for resource managers and community members alike, and that it is a holistic, inter-disciplinary approach to restoration planning.

The Watershed Center is uniquely situated to capitalize on this funding opportunity, conduct work that is well aligned with the goals of the Bureau of Reclamation, and to make meaningful progress toward a resilient watershed and community. The Watershed Center has a proven record of accomplishment in bringing partners to the table, conducting meaningful public and collaborative engagement, and designing/implementing multi-benefit river restoration projects. We at the US Forest Service look forward to working with them on the proposed efforts. By completing this project, a broader group of stakeholders and community members will be engaged in improving the resilience of our watershed, and will be more adapted to wildfire and climate change.

We are particularly pleased that the proposed project will address broadened community engagement in conjunction with climate and wildfire resilience assessments because these objectives are complimentary to broad-scale planning efforts that we are currently trying to implement as part of USDA's Wildfire Crisis Strategy.

We urge you to put a high priority on this proposed project, and look forward to working with The Watershed Center to improve community engagement and climate resilience across the St. Vrain Basin.





RE: Letter of Support for The Watershed Center's Proposal – Climate Resilience Planning and Community Engagement from the Headwaters to the Plains

Sincerely,

Digitally signed by **KEVIN KEVIN MCLAUGHLIN** XMCLAUGHLIN Date: 2023.12.04 18:26:39 -07'00'

KEVIN D. MCLAUGHLIN District Ranger

cc:

December 1, 2023

RE: Letter of Support for The Watershed Center's Proposal – Climate Resilience Planning and Community Engagement from the Headwaters to the Plains

Dear Review Committee,

We are writing to provide support of the grant application being submitted by The Watershed Center, titled "Climate Resilience Planning and Community Engagement from the Headwaters to the Plains."

The proposed project will expand community and stakeholder engagement across the St. Vrain Watershed's forests, rivers, and grasslands; track watershed health across forests and rivers; and develop concept designs for river restoration projects. Together, these efforts aim to increase community engagement, inform the Watershed Center's understanding of how watershed health is responding to disturbances such as climate change and wildfire, and develop project designs that will improve ecosystem resilience to those disturbances. This project is distinctive in that it will provide useful information and momentum for resource managers and community members alike, and that it is a holistic, inter-disciplinary approach to restoration planning.

The Watershed Center is uniquely situated to capitalize on this funding opportunity, conduct work that is well aligned with the goals of the Bureau of Reclamation and make meaningful progress toward a resilient watershed and community. The Watershed Center has a proven record of accomplishment in bringing partners to the table, conducting meaningful public and collaborative engagement, and designing/implementing multi-benefit river restoration projects. We at the Wildfire Research Center look forward to working with them on the proposed efforts.

We are excited that the proposed project will contribute to the vision and mission of the Wildfire Research Center, which is to support evidence-based community wildfire education efforts so that communities can live with wildfire.

We recommend funding this proposed project and look forward to working with The Watershed Center.

Sincerely,

Collan pourson

President and Project Manager The Wildfire Research Center Colleen@WildfireResearchCenter.org



November 22, 2023

RE: Letter of Support for The Watershed Center's Proposal – Climate Resilience Planning and Community Engagement from the Headwaters to the Plains

Dear Review Committee,

I am writing to provide enthusiastic support of the grant application being submitted by The Watershed Center, titled "Climate Resilience Planning and Community Engagement from the Headwaters to the Plains." Completion of this project is vital to our watershed and the communities within as we work to enhance the resilience of our forests, grasslands, and rivers to climate change and wildfire.

The proposed project will expand community and stakeholder engagement across the forests, rivers, and grasslands; track watershed health across forests and rivers; and develop concept designs for river restoration projects. Together, these efforts will result in a greater diversity of engaged community members across a broader geography, inform our understanding of how watershed health is responding to disturbances such as climate change and wildfire, and result in project designs that will improve ecosystem resilience to those disturbances. This project is distinctive in that it will provide useful information and momentum for resource managers and community members alike, and that it is a holistic, inter-disciplinary approach to restoration planning.

The Watershed Center is uniquely situated to capitalize on this funding opportunity, conduct work that is well aligned with the goals of the Bureau of Reclamation, and to make meaningful progress toward a resilient watershed and community. The Watershed Center has a proven record of accomplishment in bringing partners to the table, conducting meaningful public and collaborative engagement, and designing/implementing multi-benefit river restoration projects. We at the Town of Lyons look forward to working with them on the proposed efforts. By completing this project, a broader group of stakeholders and community members will be engaged in improving the resilience of our watershed and will be more adapted to wildfire and climate change.

We are particularly pleased that the proposed project will address wildfire mitigation. The Town of Lyons has been working on finding funding to evaluate the Town's wildfire risks and as a small Town surrounded by the foothills of Colorado, we have a large area of wildland urban interface. We also have the confluence of the North and South St. Vrain Creeks in the center of Town. This project could directly benefit the Town with strategies and a better understanding of how we continue to move forward with our wildfire mitigation efforts.

We urge you to put a high priority on this proposed project and look forward to working with The Watershed Center to improve community engagement and climate resilience across the St. Vrain Basin.

Sincerely. Holle Roy

Mayor Hollie Rogin





City of Boulder Open Space & Mountain Parks

P.O. Box 791. Boulder, CO. 80306; 303.441.3440 www.osmp.org

November 27, 2023

RE: Letter of Support for The Watershed Center's Proposal – Climate Resilience Planning and Community Engagement from the Headwaters to the Plains

Dear Review Committee,

I am writing to provide enthusiastic support of the grant application being submitted by The Watershed Center, titled "Climate Resilience Planning and Community Engagement from the Headwaters to the Plains." Completion of this project is vital to our watershed and the communities within as we work to enhance the resilience of our forests, grasslands, and rivers to climate change and wildfire.

The proposed project will expand community and stakeholder engagement across the forests, rivers, and grasslands; track watershed health across forests and rivers; and develop concept designs for river restoration projects. Together, these efforts will result in a greater diversity of engaged community members across a broader geography, inform our understanding of how watershed health is responding to disturbances such as climate change and wildfire, and result in project designs that will improve ecosystem resilience to those disturbances. This project is distinctive in that it will provide useful information and momentum for resource managers and community members alike, and that it is a holistic, inter-disciplinary approach to restoration planning.

The Watershed Center is uniquely situated to capitalize on this funding opportunity, conduct work that is well aligned with the goals of the Bureau of Reclamation, and to make meaningful progress toward a resilient watershed and community. The Watershed Center has a proven record of accomplishment in bringing partners to the table, conducting meaningful public and collaborative engagement, and designing/implementing multi-benefit river restoration projects. I look forward to working with them on the proposed efforts. By completing this project, a broader group of stakeholders and community members will be engaged in improving the resilience of our watershed and will be more adapted to wildfire and climate change.

I am particularly pleased that the proposed project will be conducting long-term ecological and biophysical monitoring of both forests and rivers to better understand how climate and wildfire resilience trajectories are changing as this type of information will inform OSMP land management decisions. In addition, the river conceptual designs to reduce wildfire risk will be great examples for OSMP to learn from and apply to our own projects.

I urge you to put a high priority on this proposed project, and look forward to working with The Watershed Center to improve community engagement and climate resilience across the St. Vrain Basin.



Sincerely,

Catherine McAntyre Cat McIntyre

Sr. Wetland & Riparian Ecologist City of Boulder Open Space Mountain Parks



Left Hand Water District

November 30, 2023

U.S. Bureau of Reclamation WaterSMART Cooperative Watershed Management Program

RE: Letter of Support for The Watershed Center's Proposal – Climate Resilience Planning and Community Engagement from the Headwaters to the Plains

Dear Review Committee:

On behalf of the Left Hand Water District Board of Directors, I am writing in support of the Watershed Center's submission titled "Climate Resilience Planning and Community Engagement from the Headwaters to the Plains."

High wildfire risk, as well as other impacts from climate change, in the St. Vrain and Left Hand Watershed threaten many aspects of our community infrastructure, water quality, and life and property. The Left Hand Water District Board of Directors understand the risk posed to being able to provide a high quality drinking water supply under post fire conditions. With assistance from BOR, the proposed project will expand community and stakeholder engagement across the forests, rivers, and grasslands; track watershed health across forests and rivers; and develop concept designs for river restoration projects. The unique position that The Watershed Center (TWC) holds in our watershed is the ability to engage with a greater diversity of community members across a broader geography than water providers such as the Left Hand Water District can on our own. The ability of TWC to reach across multi-jurisdictional boundaries has time and again proven to be the most efficient use of funding important regional projects such as this. We are confident that this project will provide useful information and momentum for our community to prepare for future climate challenges.

The District has come to rely on the expertise of the Watershed Center in outreach, education, and most importantly a rapid response to events in the watershed that can only be accomplished by this type of cross-boundary, community forward approach. Because of this, the Left Hand Water District provides annual financial support as well. We cannot do this alone, and respectfully ask that you put a high priority on this application and look forward to working with the Watershed Center to reduce impacts by preparing in advance of the next event.

Sincerely,

Left Hand Water District Christopher Smith, P.E. General Manger



CITY OF LONGMONT | Public Works and Engineering

November 30, 2023

RE: Letter of Support for The Watershed Center's Proposal – Climate Resilience Planning and Community Engagement from the Headwaters to the Plains

Dear Review Committee,

The City of Longmont enthusiastically supports the grant application being submitted by The Watershed Center, titled "**Climate Resilience Planning and Community Engagement from the Headwaters to the Plains.**" Completion of this project is vital to our watershed and the communities within as we work to enhance the resilience of our forests, grasslands, and rivers to climate change and wildfire.

The proposed project will expand community and stakeholder engagement across the forests, rivers, and grasslands; track watershed health across forests and rivers; and develop concept designs for river restoration projects. Together, these efforts will result in a greater diversity of engaged community members across a broader geography, inform our understanding of how watershed health is responding to disturbances such as climate change and wildfire, and result in project designs that will improve ecosystem resilience to those disturbances. This project is distinctive in that it will provide useful information and momentum for resource managers and community members alike, and that it is a holistic, inter-disciplinary approach to restoration planning.

The Watershed Center is uniquely situated to capitalize on this funding opportunity, conduct work that is well aligned with the goals of the Bureau of Reclamation, and to make meaningful progress toward a resilient watershed and community. The Watershed Center has a proven record of accomplishment in bringing partners to the table, conducting meaningful public and collaborative engagement, and designing/implementing multi-benefit river restoration projects. Longmont looks forward to working with them on the proposed efforts. By completing this project, a broader group of stakeholders and community members will be engaged in improving the resilience of our watershed and will be more adapted to wildfire and climate change. Longmont has been focusing on resiliency since the 2013 flood and now has a department dedicated to resilience. This project will be another significant tool in the toolbox for our city.

We urge you to put a high priority on this proposed project and look forward to working with The Watershed Center to improve community engagement and climate resilience across the St. Vrain Basin.

Sincerely,

im Angstadt

Jim Angstadt, PE Director of Public Works and Engineering



December 4, 2023

RE: Letter of Support for The Watershed Center's Proposal – Climate Resilience Planning and Community Engagement from the Headwaters to the Plains

Dear Review Committee,

I am writing to provide enthusiastic support of the grant application being submitted by The Watershed Center, titled "Climate Resilience Planning and Community Engagement from the Headwaters to the Plains." Completion of this project is vital to our watershed and the communities within as we work to enhance the resilience of our forests, grasslands, and rivers to climate change and wildfire.

The proposed project will expand community and stakeholder engagement across the forests, rivers, and grasslands; track watershed health across forests and rivers; and develop concept designs for river restoration projects. Together, these efforts will result in a greater diversity of engaged community members across a broader geography, inform our understanding of how watershed health is responding to disturbances such as climate change and wildfire, and result in project designs that will improve ecosystem resilience to those disturbances. This project is distinctive in that it will provide useful information and momentum for resource managers and community members alike, and that it is a holistic, inter-disciplinary approach to restoration planning.

The Watershed Center is uniquely situated to capitalize on this funding opportunity, conduct work that is well aligned with the goals of the Bureau of Reclamation, and to make meaningful progress toward a resilient watershed and community. The Watershed Center has a proven record of accomplishment in bringing partners to the table, conducting meaningful public and collaborative engagement, and designing/implementing multi-benefit river restoration projects. We at Boulder County look forward to working with them on the proposed efforts. By completing this project, a broader group of stakeholders and community members will be engaged in improving the resilience of our watershed, and will be more adapted to wildfire and climate change.

We are particularly pleased that the proposed project will address forest and watershed health through a lens of climate resilience because of the need for long term planning that crosses disciplines and helps our community adapt to a changing climate.

We urge you to put a high priority on this proposed project, and look forward to working with The Watershed Center to improve community engagement and climate resilience across the St. Vrain Basin.

Sincerely,

Kevin Peterson Sustainability Specialist Boulder Office of Sustainability, Climate Action & Resilience

Claire Levy County Commissioner Marta Loachamin County Commissioner Ashley Stolzmann County Commissioner



ST. VRAIN AND LEFT HAND WATER CONSERVANCY DISTRICT 1715 Iron Horse Drive, Suite 250 · Longmont, CO 80501 · 303-772-4060 · www.svlhwcd.org

December 1, 2023

US Bureau of Reclamation WaterSMART Grant Program

RE: Letter of Support for The Watershed Center's Proposal – Climate Resilience Planning and Community Engagement from the Headwaters to the Plains

Dear Review Committee:

The St. Vrain and Left Hand Water Conservancy District ("District") is pleased to provide a letter of support for The Watershed Center's "**Climate Resilience Planning and Community Engagement from the Headwaters to the Plains"** project, application for the US Bureau of Reclamation's ("USBR") WaterSMART Cooperative Watershed Management grant program. The District is a member of the St. Vrain Forest Health Partnership ("SVFHP") and a financial partner for the cross-boundary watershed, wildlife mitigation, and community engagement work conducted by The Watershed Center. This project is vital to the St. Vrain and Left Hand watershed and the communities within as we work to enhance the resilience of our forests, grasslands, and rivers to climate change and wildfire.

The proposed project will expand community and stakeholder engagement across the forests, rivers, and grasslands; track watershed health across forests and rivers; and develop concept designs for river restoration projects. Together, these efforts will result in a greater diversity of engaged community members across a broader geography, inform our understanding of how watershed health is responding to disturbances such as climate change and wildfire, and result in project designs that will improve ecosystem resilience to those disturbances. This project is distinctive in that it will provide useful information and momentum for resource managers and community members alike, and that it is a holistic, inter-disciplinary approach to restoration planning.

We urge you to put a high priority on this proposed project and look forward to working with The Watershed Center to improve community engagement and climate resilience across the St. Vrain Basin.

Sincerely,

Sean T. Cronin Executive Director



November 30, 2023

Dear Review Committee,

RE: LETTER OF SUPPORT FOR THE WATERSHED CENTER'S PROPOSAL – CLIMATE RESILIENCE PLANNING AND COMMUNITY ENGAGEMENT FROM THE HEADWATERS TO THE PLAINS

The Town of Jamestown wishes support of the grant application being submitted by The Watershed Center, titled **"Climate Resilience Planning and Community Engagement from the Headwaters to the Plains."** Completion of this project is vital to the James Creek and Left Hand Creek watershed and the communities within. We continue work to enhance the resilience of our forests, grasslands, and rivers to climate change and wildfire and The Watershed Center is an important part of those efforts.

The proposed project will expand community and stakeholder engagement across the forests, rivers, and grasslands; track watershed health across forests and rivers; and develop concept designs for river restoration projects. Together, these efforts will results in a greater diversity of engaged community members across a broader geography, inform our understanding of how watershed health is responding to disturbances such as climate change and wildfire, and result in project designs that will improve ecosystem resilience to those disturbances. This project is distinctive in that it will provide useful information and momentum for resource managers and community members alike, and that it is a holistic, inter-disciplinary approach to restoration planning.

The Watershed Center is uniquely situated to capitalize on this funding opportunity, conduct work that is well aligned with the goals of the Bureau of Reclamation, and to make meaningful progress toward a resilient watershed and community. The Watershed Center has a proven record of accomplishment in bringing partners to the table, conducting meaningful public and collaborative engagement, and designing/implementing multi-benefit river restoration projects. Jamestown is active on The Watershed Center's Board of Directors and will continue to work with them on the proposed efforts. By completing this project, a broader group of stakeholders and community members will be engaged in improving the resilience of our watershed, and will be more adapted to wildfire and climate change.

We urge you to put a high priority on this proposed project, and look forward to working with The Watershed Center to improve community engagement and climate resilience across the St. Vrain Basin.

Thank you,

Roger Loving Trustee for Jamestown Co-Chairman: Jamestown Water Works Board Member: The Watershed Center

Ken Lenarcic Town Administrator Co-Board Member: The Watershed Center



November 30, 2023

RE: Letter of Support for The Watershed Center's Proposal – Climate Resilience Planning and Community Engagement from the Headwaters to the Plains

Dear Review Committee,

I am writing on behalf of St. Vrain Anglers Chapter of Trout Unlimited (SVATU) to provide enthusiastic support of the grant application being submitted by The Watershed Center, titled "**Climate Resilience Planning and Community Engagement from the Headwaters to the Plains."** Completion of this project is vital to our watershed and the communities within as we work to enhance the resilience of our forests, grasslands, and rivers to climate change and wildfire.

The proposed project will expand community and stakeholder engagement across the forests, rivers, and grasslands; track watershed health across forests and rivers; and develop concept designs for river restoration projects. Together, these efforts will result in a greater diversity of engaged community members across a broader geography, inform our understanding of how watershed health is responding to disturbances such as climate change and wildfire, and result in project designs that will improve ecosystem resilience to those disturbances. This project is distinctive in that it will provide useful information and momentum for resource managers and community members alike, and that it is a holistic, inter-disciplinary approach to restoration planning.

The Watershed Center is uniquely situated to capitalize on this funding opportunity, conduct work that is well aligned with the goals of the Bureau of Reclamation, and to make meaningful progress toward a resilient watershed and community. The Watershed Center has a proven record of accomplishment in bringing partners to the table, conducting meaningful public and collaborative engagement, and designing/implementing multi-benefit river restoration projects. We at SVATU look forward to working with them on the proposed efforts. By completing this project, a broader group of stakeholders and community members will be engaged in improving the resilience of our watershed and will be more adapted to wildfire and climate change.

We urge you to put a high priority on this proposed project and look forward to working with The Watershed Center to improve community engagement and climate resilience across the St. Vrain Basin.

Sincerely,

Tyler M. Scott

Tyler M. Scott Vice-President, St. Vrain Anglers chapter of Trout Unlimited Watershed Center Board Member (Ex-Officio)



COLORADO STATE UNIVERSITY

Boulder Field Office 5625 Ute Highway Longmont, CO 80503 303-823-5774

12/4/2023

RE: Letter of Support for The Watershed Center's Proposal – Climate Resilience Planning and Community Engagement from the Headwaters to the Plains

Dear Review Committee,

I am writing to provide enthusiastic support of the grant application being submitted by The Watershed Center, titled "Climate Resilience Planning and Community Engagement from the Headwaters to the Plains." Completion of this project is vital to our watershed and the communities within as we work to enhance the resilience of our forests, grasslands, and rivers to climate change and wildfire.

The proposed project will expand community and stakeholder engagement across the forests, rivers, and grasslands; track watershed health across forests and rivers; and develop concept designs for river restoration projects. Together, these efforts will results in a greater diversity of engaged community members across a broader geography, inform our understanding of how watershed health is responding to disturbances such as climate change and wildfire, and result in project designs that will improve ecosystem resilience to those disturbances. This project is distinctive in that it will provide useful information and momentum for resource managers and community members alike, and that it is a holistic, inter-disciplinary approach to restoration planning.

The Watershed Center is uniquely situated to capitalize on this funding opportunity, conduct work that is well aligned with the goals of the Bureau of Reclamation, and to make meaningful progress toward a resilient watershed and community. The Watershed Center has a proven record of accomplishment in bringing partners to the table, conducting meaningful public and collaborative engagement, and designing/implementing multi-benefit river restoration projects. We at the Colorado State Forest Service look forward to working with them on the proposed efforts. By completing this project, a broader group of stakeholders and community members will be engaged in improving the resilience of our watershed, and will be more adapted to wildfire and climate change.

We are particularly pleased that the proposed project will address engagement in the St. Vrain Forest Health Partnership landscape, including both forests and grasslands, because understanding and communicating with stakeholders in the entire landscape will help improve adaptive management and the resiliency of our landscape and communities.

We urge you to put a high priority on this proposed project, and look forward to working with The Watershed Center to improve community engagement and climate resilience across the St. Vrain Basin.

Sincerely,

Ben Pfohl

Ben Pfohl Supervisory Forester – Boulder Field Office



November 30, 2023

RE: Letter of Support for The Watershed Center's Proposal – Climate Resilience Planning and Community Engagement from the Headwaters to the Plains

Dear Review Committee,

I am Erica Crosby with the Inactive Mine Program of the Colorado Division of Reclamation, Mining and Safety writing to provide enthusiastic support of the grant application being submitted by The Watershed Center, titled "Climate Resilience Planning and Community Engagement from the Headwaters to the Plains." Completion of this project is vital to our watershed and the communities within as we work to enhance the resilience of our forests, grasslands, and rivers to climate change and wildfire.

The proposed project will expand community and stakeholder engagement across the forests, rivers, and grasslands; track watershed health across forests and rivers; and develop concept designs for river restoration projects. Together, these efforts will results in a greater diversity of engaged community members across a broader geography, inform our understanding of how watershed health is responding to disturbances such as climate change and wildfire, and result in project designs that will improve ecosystem resilience to those disturbances. This project is distinctive in that it will provide useful information and momentum for resource managers and community members alike, and that it is a holistic, inter-disciplinary approach to restoration planning.

The Watershed Center is uniquely situated to capitalize on this funding opportunity, conduct work that is well aligned with the goals of the Bureau of Reclamation, and to make meaningful progress toward a resilient watershed and community. The Watershed Center has a proven record of accomplishment in bringing partners to the table, conducting meaningful public and collaborative engagement, and designing/implementing multi-benefit river restoration projects. The Division of Reclamation, Mining and Safety look forward to working with them on the proposed efforts. By completing this project, a broader group of stakeholders and community members will be engaged in improving the resilience of our watershed, and will be more adapted to wildfire and climate change.

We are particularly pleased that the proposed project will include the assessment of legacy mining impacts within the watershed and to help improve lands that have been impacted by mining.



We urge you to put a high priority on this proposed project, and look forward to working with The Watershed Center to improve community engagement and climate resilience across the St. Vrain Basin.

Sincerely,

Elica S. Croston

Erica S. Crosby Senior Project Manager/Environmental Protection Specialist