The Watershed Center
Strategic Plan for 2023-2027

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Adopted by:
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HISTORY

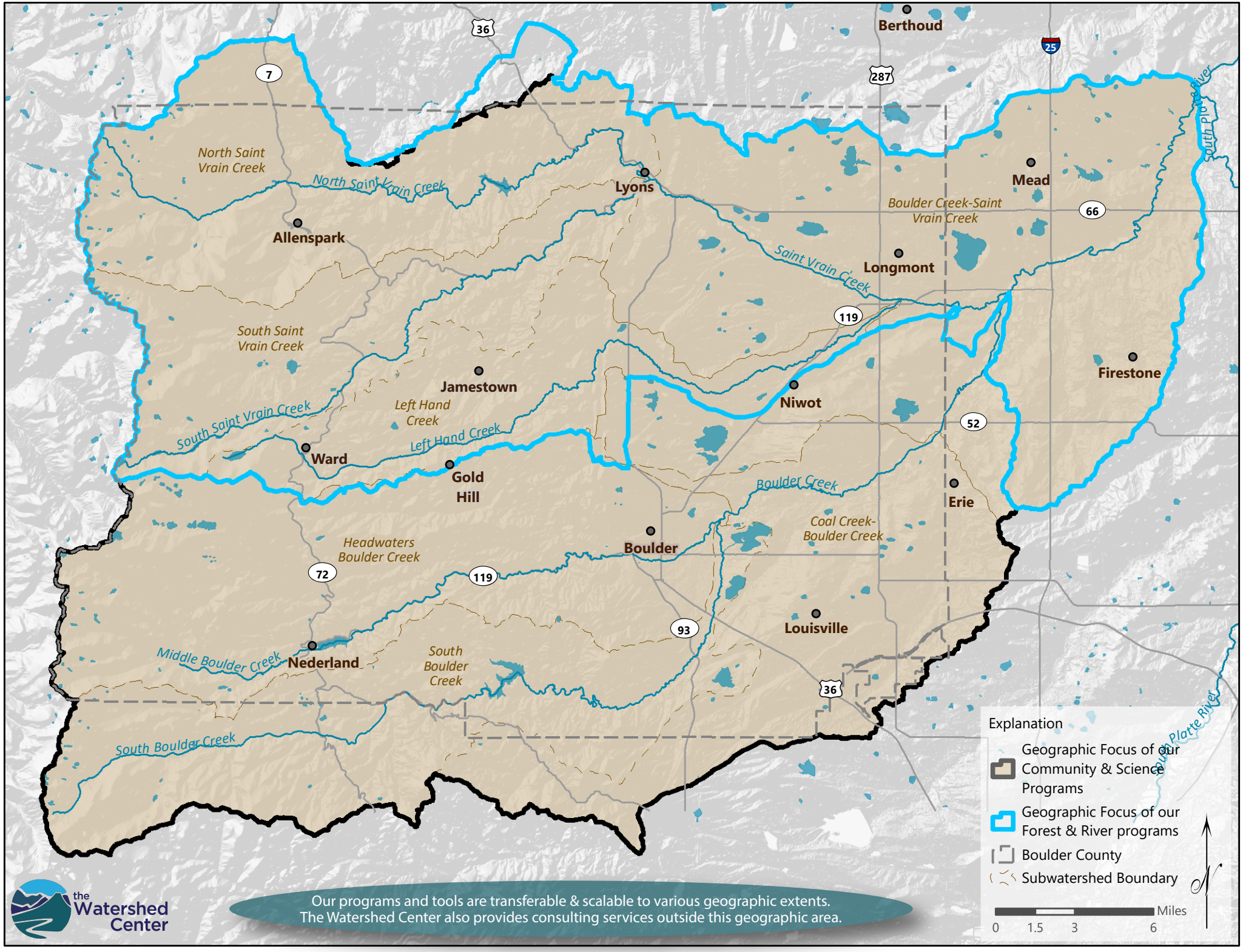
Established in 2005, the Watershed Center has strong roots in Boulder County and is led by a diverse board of enthusiastic stakeholders. We value science and community, and embrace these values to implement on-the-ground projects to protect and restore ecosystems. While we maintain our roots in the St. Vrain Basin, we apply our locally-developed tools regionally for the benefit of all Front Range watersheds and communities.

Our history as an organization has three phases related to three watershed events: legacy mining, floods, and wildfires (Table 1). From 2005 to 2015, we focused on oversight of local mine clean-up activities in Left Hand Creek, helping ensure the community and watershed were protected from legacy mining impacts. From 2015 to 2019, we grew as an organization by leading the long-term flood recovery across twenty projects in Left Hand Watershed. In 2019, we expanded our geography to include the St. Vrain Basin (all Boulder County watersheds) and we incorporated forest restoration into our services. In 2020 we increased our leadership of forest restoration in the St. Vrain Basin by coordinating the St. Vrain Forest Health Partnership and managing fire mitigation efforts in Jamestown. We also increased our leadership of collaborative science by developing a basin-scale adaptive management plan for assessing watershed conditions across ecosystems.

Today, we continue to expand our capacity, expertise, and partnerships to address the challenges and opportunities facing watersheds now and in the future.

Table 1. Snap shot of our history of growth

Timeline	Finances	Staff	Organization and Program Highlights
2005-2015	$20,000 Annual budget. 2 funding sources. Carryover-$0	0.5 FTE	Focus on Captain Jack Mine reclamation & Water quality sampling
2016-2019	$8,493,093 budget in 2017; 99% federal grants with 50K in local grants/donations. Carryover-$56,000	2-3 FTE	Completed 20 flood recovery projects. Began building Adaptive management and science focus. Began building community science and stewardship tools.
2020-2022	$1,034,781 budget in 2020; 60% federal grants, 20% state and 20% local grants. Carryover- $306,551	3-4 FTE	Started Forest program (SVFHP), led Cal-wood fire recovery on private lands, and expanded adaptive management to County-scale. Expanded community engagement with K-12 education, watershed days, and community science programming.
2022	$1,098,975; 8% federal grants, 50% state grants, 40% local grants/donations. Carryover-$619,453	6 FTE	Grew forest, river, science, and community programming capacity. Restructured staffing/org chart.


Berthoud
36
7
287
25
North Saint Vrain Creek
North Saint Vrain Creek
Lyons
Mead
South Platte River
Boulder Creek-Saint Vrain Creek
66
Allenspark
Saint Vrain Creek
Longmont
119
South Saint Vrain Creek
Jamestown
Left Hand Creek
Niwot
Firestone
South Saint Vrain Creek
Left Hand Creek
52
Ward
Gold Hill
Boulder Creek
Erie
Coal Creek-Boulder Creek
Headwaters Boulder Creek
Boulder
72
119
93
Louisville
Middle Boulder Creek
Nederland
South Boulder Creek
36
South Boulder Creek
South Platte River
Explanation
Geographic Focus of our Community & Science Programs
Geographic Focus of our Forest & River programs
Boulder County
Subwatershed Boundary
Miles
0
1.5
3
6
the Watershed Center
Our programs and tools are transferable & scalable to various geographic extents.
The Watershed Center also provides consulting services outside this geographic area.

MISSION, VISION, AND GOALS

Mission

With roots in the Left Hand Watershed, the mission of the Watershed Center is to protect and restore watersheds for people and the environment using a collaborative and science based approach.

Vision

We envision a future where watersheds remain healthy and resilient for generations to come. This includes:

- Growing collective understanding of watershed conditions and the best strategies to improve resilience with climate change and other challenges.
- Maintaining the integrity of unique land and water systems that balance ecological, cultural, social, and economic benefits.
- Adapting to the impacts of climate change by building resilience in advance of the next flood, fire, or drought.

Goals

The Watershed Center works towards the following goals in pursuit of our mission:

1. **Science**: Use collaboration and the best available science to understand watershed conditions across ecosystems and the solutions needed to increase watershed resilience to climate change and other challenges.
2. **People**: Build a shared stewardship ethic among stakeholders, scientists, and community members through engagement, collaboration, outreach, and connection.
3. **Solutions**: Plan and implement cross-boundary projects that protect healthy ecosystems, mend impaired ecosystems, and prepare watersheds for the impacts of climate change.

VALUES

The core values of the Watershed Center are preserving the environment and working together as a community of stakeholders.

Environment

We value preservation of the watershed as a working and living resource and a place of beauty, from the pristine headwaters to the agricultural valley bottom to urban areas. When watersheds are healthy, then people, wildlife, agriculture, businesses, and communities all benefit.

- Science: We rely on a science-based approach to assess and monitor the conditions of the watershed so we understand what we have and how to protect it, restore it, and adapt to climate change.
- Stewardship Ethic: We strive to build a lasting stewardship ethic among the community and are committed to protecting the watershed.
- Culture: We value the multi-use nature of watersheds, including the elements of a “working river” and a rich history including mining and recreational opportunities.
- Climate Adaptation: We strive to adapt to climate change and build resilience in the watershed in advance of the next flood, fire, and drought.

Community

We value and respect all community members and beneficiaries of the watershed. We strive to be a place where everyone is welcomed and all voices are heard. We develop relationships based on shared goals/shared vision/shared values and trust.

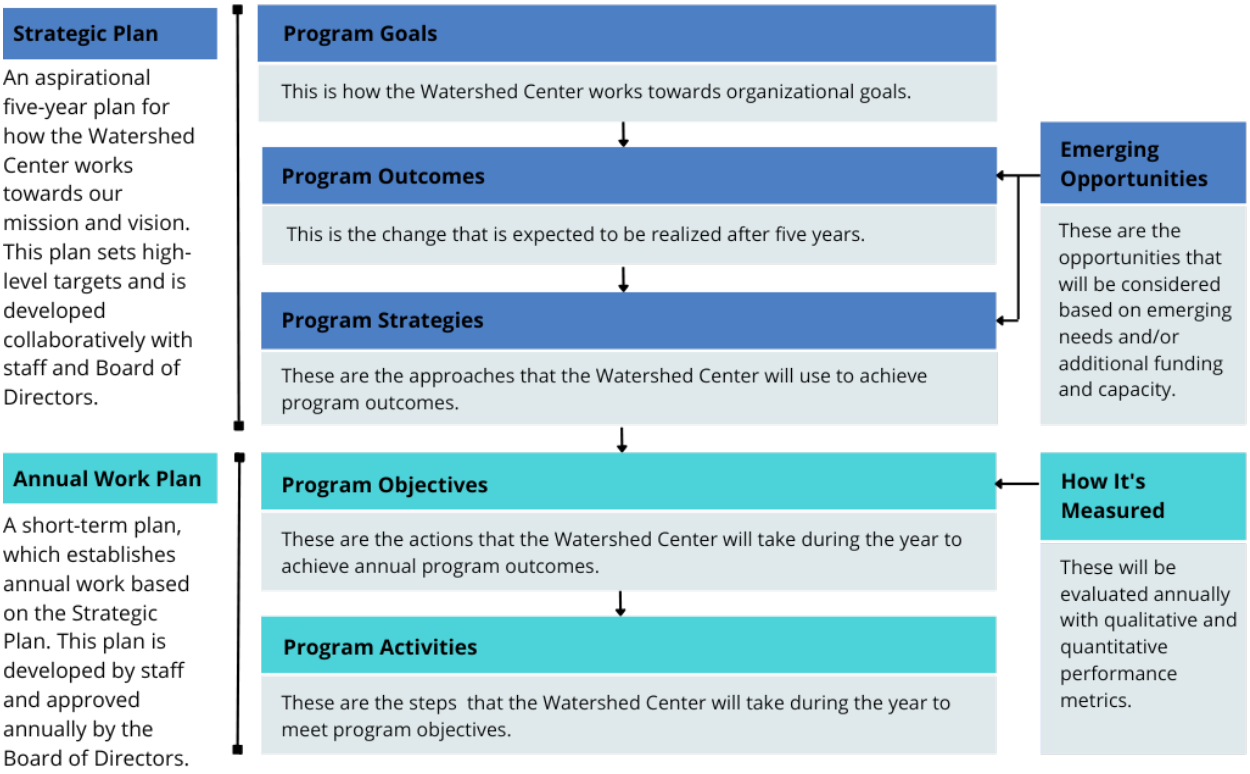
- Collaboration: We work together to accomplish our mission and implement programs. We bring scientists together to develop solutions using the best available science. We bring stakeholders together to develop cross-boundary solutions that extend the impact of limited resources.
- Sustainability: We endeavor to sustain the watershed and our organization, with strong financial and public support.
- Inclusivity: We are committed to elevating all voices and reducing barriers to participation for all people because we know that these strategies are imperative for creating lasting solutions that benefit the environment and community.

PLAN PERSPECTIVE

This five-year strategic plan defines program goals, outcomes, and objectives for 2023-2027. This plan was developed through a collaborative process led by staff and the Strategic Planning Committee Members. Additional input from the board of directors was provided at a Strategic Planning Meeting. Together, the Board of Directors and staff identified an ambitious suite of program outcomes, objectives, and opportunities for next five years. In support of these programs, the Board of Directors and staff identified organizational initiatives that will support capacity across all programs. This plan will serve as a strong guide while allowing flexibility to explore emerging needs and opportunities that align with our goals. We will update this plan as needed throughout the 5-year period.

Plan Workflow

The workflow below describes the information provided in the strategic plan and how this information is further refined in the annual work plan.



Criteria for Work

As this plan was developed, the following list of guiding questions helped us prioritize strategies and weigh each opportunity. The criteria will guide decision-making related to emerging needs and opportunities.

1. Does it align within our existing services and strengths?
2. Does it leverage the Watershed Center's unique capacities, approaches, and resources?
3. Does it lead to lasting positive outcomes for the environment and community?
4. Is it scale-able, repeatable, or usable in other watersheds or communities?
5. Would it serve as an important learning opportunity to apply to our future work in the watershed?
6. Does the current and expected future funding environment support this pursuit?

PROGRAMS

Science Program

Program Goal

What is the five-year program goal?

Use a science-based collaborative process to assess and manage watersheds from headwaters to the plains to build resilience in the face of climate change.

Purpose and Need

What is the pressing need that this program is striving to address?

Watersheds are experiencing an increased frequency of climate driven events such as floods, fires, and droughts. These events threaten ecological, cultural, social, and economic values of watersheds and communities. The impact of these events can be mitigated through climate adaptation strategies. However, more scientific information is needed to understand watershed conditions, potential solutions, and the effectiveness of applied climate adaptation efforts. Given the complexity of land ownership across watersheds, collaboration across boundaries is needed for a unified approach to watershed management. Further, collaboration must go beyond land ownership to incorporate scientific advances and discoveries, so that scientists, managers, and policy makers are working together on innovative solutions. Therefore, the pressing need for this program is that science-based collaboration must be used to inform how and where we build climate adaptation solutions.

Program Outcomes

What are the program's measurable outcomes that can be evaluated after five years?

1. Did the scientific information collected by the Watershed Center through monitoring and collaboration enable assessment and increase understanding of watershed conditions and climate adaptation strategies across the St. Vrain Basin?
2. Did the Watershed Center collaborate with stakeholders and scientist on climate adaptation project and monitoring priorities in advance of funding opportunities?
3. Did the Watershed Center serve as a thought leader in development and implementation of science and collaboration processes that lead to actionable projects?

Program Strategies

What are the approaches that we will use to get to the program outcomes?

1. Conduct monitoring and research of watershed conditions across the basin as defined in Adaptive Management at Scale Plan and St. Vrain Forest Health Partnership Project Guidance Plan.
2. Develop a list of actionable watershed management projects with input from stakeholders, scientists, and community.
3. Collaborate with stakeholders, scientists, and community on project and monitoring priorities in advance of funding opportunities.
4. Translate knowledge gained through science and collaboration into reports for stakeholders and community.

5. Use knowledge gained through science and collaboration to evaluate and provide feedback on plans and policies.
6. Develop and share reports with local and/or state wide audiences.
7. Collaborate with regional, national and/or global partners to understand and support emerging climate resilience and adaptation solutions.
8. Advance our understanding of climate adaptation strategies and knowledge gaps for emerging challenges and opportunities. These include, but are not limited to, desired conditions in high elevation forests, stage zero restoration strategies and benefits, mitigation of legacy mining impacts in watersheds, mitigation of fire risk in plains grasslands, and forest management impacts to soil moisture and invasive species.

Emerging Opportunities

What are the opportunities that may be considered in the next five years based on emerging needs and/or additional funding and capacity?

1. Expand the science and collaboration process, or elements of the process such as monitoring, to other geographies.
2. Expand grassland restoration programming to address needs and opportunities related to reducing fire risk and improving ecological resilience with climate change.
3. Develop multi-benefit projects that integrate regenerative agriculture, water delivery, river restoration, and/or forest management connections.
4. Incorporate carbon sequestration into the science and collaborative process.
5. Create a science and collaboration toolkit that others may use to develop their own science and collaboration process or adapt our existing process.
6. Consider fee for service opportunities to develop plans and/or answer research questions.
7. Publish findings, models, and program processes in peer reviewed journals or white papers.

Community

Program Goal

What is the five-year program goal?

Build a community-wide stewardship ethic rooted in watershed science and place-based participatory learning through community engagement, collaboration, stewardship action, and education.

Purpose and Need

What is the pressing need that this program is striving to address?

Watersheds are increasingly impacted by climate-driven events, and, as a result, so are the people who depend on them. As an integral part of watersheds, people benefit from and rely upon many ecological, cultural, social, and economic services offered by their watersheds. Given the interconnected relationship between watersheds and people, it is imperative that people are given opportunities to participate in making decisions and taking actions to improve watershed health and resilience. In order to inspire and enable people to participate in these processes, we must utilize tools such as outreach, engagement, and education to build a stewardship ethic founded in appreciating watersheds, understanding scientific processes that take place in watersheds, and applying knowledge to impact positive change. We must also recognize that, while a diversity of thought and experience is crucial to

creating lasting solutions that benefit the environment and community, watersheds are made up of diverse voices that lack equal access to resources, information, and opportunities. Therefore, the pressing need for this program is that more voices are elevated and more opportunities are offered to increase the scientific understanding and stewardship ethic of all community members.

Program Outcomes

What are the program's measurable outcomes that can be evaluated at the end of five years?

1. Did the Watershed Center increase the collective population of watershed stewards that understand the potential solutions to protect watersheds in the face of increased fires, floods, and droughts?
2. Did the Watershed Center take steps to elevate diverse voices, identify and reduce barriers to participation, and increase equity and inclusion across our programs?
3. Did the Watershed Center increase scientific literacy related to watershed health and climate change in K-12 and higher education?

Program Strategies

What are the approaches that we will use to get to the program outcomes?

1. Develop, support, and share events and materials that raise community awareness, engagement, and education about watershed health and climate resilience.
2. Set goals, identify strategies, and implement strategies that elevate diverse voices, identify and reduce barriers to participation, and increase equity and inclusion across our programs.
3. Partner with schools, education groups, and educators to provide place-based and participatory science learning opportunities for students.
4. Increase place-based and participatory science learning opportunities for underserved students.

Emerging Opportunities

What are the opportunities to consider in the next five years based on emerging needs and/or additional funding and capacity?

1. Build new partnerships at the state and/or national level.
2. Develop a state of the watershed annual public presentation and forum.
3. Host or support new regular volunteer and/or community science opportunities.
4. Host large public events such as Watershed Days or Earth Day.
5. Develop new curriculums and/or teacher training opportunities.

Rivers Program

Program Goal

What is the five-year program goal?

Bring together diverse stakeholders, scientists and community members to plan and implement multi-benefit on-the-ground projects that advance watershed restoration practices and incorporate climate change scenarios.

Purpose and Need

What is the pressing need that this program is striving to address?

Climate change is impacting the ability of river and riparian ecosystems to provide clean, reliable water sources, and habitat for people and wildlife. Snowpack in Colorado is expected to decrease by 60% in the next 30 years, resulting in a decrease in water availability in rivers. In addition to lower water availability from snowpack, intermittency is expected to become more frequent, threatening habitat for fish communities, hydrological connectivity, and water delivery. Rivers are also vulnerable to increased sediment inputs, debris flows, and severe floods that can follow high-severity wildfires. Species habitat ranges (such as the red-bellied dace) are shifting further upstream as temperatures increase and rainfall bands shift with climate change. Temperature increases are also expected to exacerbate impacts of legacy mining on water quality. Promoting the ability of riparian systems to attenuate flows and fluxes in water availability and increase habitat connectivity is a key climate-adaptation response to mediate climate change effects. Therefore, the pressing needs for this program is that watershed restoration and management actions are implemented to create a climate adapted-corridor that can sustain multiple uses and the impacts of climate driven events including flood, fire, and drought.

Program Outcomes

What are the program's measurable outcomes that can be evaluated after five years?

1. Did the Watershed Center design and implement three river restoration projects that incorporate and demonstrate benefits of climate adaptation strategies?
2. Did the Watershed Center conduct adaptive management of completed river restoration projects?
3. Did the Watershed Center oversee legacy mine reclamation and pursue a tracer study of legacy mine inputs?
4. Did the Watershed Center support or lead multi-benefit projects that incorporate fish habitat connectivity with ditch or diversion enhancements?
5. Did the Watershed Center identify locations where river and riparian restoration projects will have the greatest impact on minimizing threats to communities, water supplies, and ecosystems considering future floods and fires?

Program Strategies

What are the approaches that we will use to get to the program outcomes?

1. Conduct planning, outreach, engagement, and implementation of three on-the-ground projects.
2. Identify on-the-shelf projects based on the Colorado Water Conservation Board's "Wildfire Ready Watersheds" approach.
3. Apply and evaluate climate adaptation strategies including but not limited to sediment catchment, flood attenuation, carbon sequestration, and changing wildlife distribution.
4. Continue overseeing mine related reclamation activities and reporting on water quality monitoring results in Left Hand Creek.
5. Share accomplishments and lessons learned with state-wide audiences.

Emerging Opportunities

What are the opportunities to consider in the next five years based on emerging needs and/or additional funding and capacity?

1. Implement more than three on-the-ground projects.
2. Complete a tracer study to understand legacy inputs throughout Left Hand Creek Watershed.
3. Pilot test and evaluate new adaptive management and restoration methods.
4. Explore and pursue opportunities to complete additional multi-benefit projects.
5. Explore and pursue opportunities to develop projects with a research lens and/or as case studies for others.
6. Implement pilot study for flow modification in dry up reaches.
7. Increase staff capacity to use additional tools such as drones for long-term monitoring.
8. Develop a recovery playbook in advance of next flood so that the stakeholders in St. Vrain Watershed are ready to respond effectively and everyone understands the likely roles and responsibilities in recovery.
9. Lead future flood recovery projects on private lands.

Forests Program

Program Goal

What is the five-year program goal?

Bring together diverse stakeholders, scientists, and community members to collaboratively plan and implement cross-jurisdictional landscape-scale forest restoration in the St. Vrain Watershed that will prepare the landscape and community to receive wildland fire as a natural part of the ecosystem.

Purpose and Need

What is the pressing need that this program is striving to address?

Overly dense forests, longer fire seasons, more frequent warm periods, and extended drought are increasing the likelihood of high-severity wildfire, which puts our communities, water, and forests at risk. A history of fire suppression has caused fuels to build up on the forest floor, contributing further to high-severity wildfires. When high-severity wildfires occur, tree survival and regrowth are limited, and soils repel water, increasing the flow of sediment and debris into streams. Non-native invasive plants also emerge. A landscape-scale strategy to restore historical tree spacing, species diversity, and a range of habitat types is needed make the entire watershed more resilient to wildfire. Therefore, the urgent need for this program is to increase the pace and scale of forest restoration and management in the St. Vrain Watershed.

Program Outcomes

What are the program's measurable outcomes that can be evaluated after five years?

1. Did the Watershed Center develop at least 4,000 acres of cross-boundary forest management plans for increasing fire resilience and reducing impacts to water supplies, communities, and forests by 2026?
2. Did the Watershed Center help raise at least $1,000,000 annually with other stakeholders for implementing forest restoration in the St. Vrain Watershed?

3. Did the Watershed Center support operations planning, project prioritization, and project implementation in the St. Vrain Watershed to help meet partner's forest restoration acreage goals within the county?
4. Did the Watershed Center implement post-fire adaptive management in areas impacted by the 2020 Cal-Wood Fire and Left Hand Fire?

Program Strategies

What are the approaches that we will use to get to the program outcomes?

1. Maintain a robust, engaged, and motivated St. Vrain Forest Health Partnership that works collaboratively to meet scope of work for increasing the pace and scale of forest restoration defined in the St. Vrain Forest Health Partnership Charter.
2. Provide landowners, community members, and stakeholders with education, resources, and support to implement small forest restoration and management projects.
3. Provide notice and forum for community members to learn about projects across Boulder County.
4. Support a successful USFS NEPA process, including implementation of an annual adaptive management process that utilizes the best available science and input from the community.
5. Support (and lead as appropriate) implementation of forest restoration projects in Boulder County.
6. Conduct planning, outreach, engagement, site visits, and technical analysis to develop 4,000 acres of cross-boundary forest management plans.
7. Conduct post-fire adaptive management of areas impacted by the 2020 Cal-Wood and Left Hand fires.

Emerging Opportunities

What are the opportunities to consider in the next five years based on emerging needs and/or additional funding and capacity?

1. Build additional internal capacity to increase our ability to lead implementation projects on public and private lands.
2. Since the United States Forest Service and other entities often use the St. Vrain Forest Health Partnership as a model for others, we could develop tool kit for others to use and develop their own Forest Program in different geographies.
3. Lead future fire recovery projects on private lands.
4. Develop a recovery playbook in advance of next fire so that the stakeholders in St. Vrain Watershed are ready to respond effectively and everyone understands the likely roles and responsibilities in recovery.
5. Coordinate prescribed fire (broadcast burn and/or pile burning) opportunities on private lands and/or within cross boundary (agency-private land) projects.

ORGANIZATIONAL INITIATIVES

Reaching program goals requires significant capacity. The following initiatives will help ensure that we have the people, resources, and policies to meet these needs.

- Increase organizational stability by diversifying revenue streams and decreasing reliance on state and federal funding sources.
  - Increase individual giving to a minimum of $100,000 annually by 2027.
  - Increase foundation giving to a minimum of $100,000 annually by 2027.
  - Increase local government partner revenue to $500,000-$600,000 annually by 2027.
- Succession planning to ensure that the organization can maintain continuity of operations when faced with unexpected disruptions, job vacancies, and/or board member vacancies.
- Secure long-term office space solution.
- Financial planning to consider ways to increase income through investments.
- Evaluate ways to increase staff capacity for individual fundraising by hiring development staff person or re-allocating duties among existing staff.