

# Building Continued Capacity and Long-Term Benefit for the Big Thompson Watershed

Submitted by:



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# Technical Proposal

## Executive Summary

November 13, 2019

Big Thompson Watershed Coalition  
Loveland, Larimer County, Colorado

The Big Thompson Watershed Coalition (BTWC) formed in the aftermath of the 2013 Floods. The BTWC is a stakeholder-based local watershed organization that convenes a diverse set of interests. To date, BTWC has planned and implemented over 15 large-scale multi-purpose projects that provide long-term benefit to the Big Thompson Watershed. The BTWC is requesting \$62,762.15 in Cooperative Watershed Management Program WaterSMART funding to expand on this successful foundation. WaterSMART funding will be used to create an organizational strategic plan, conduct stakeholder outreach to further diversify representation in the organization, and perform pre-planning watershed activities focused on identifying watershed projects and priorities for forest health improvements. Specific activities include creating and implementing a strategic organizational plan, conducting outreach to a diverse set of stakeholders in expanded areas of the watershed, gathering additional forest health and related watershed parameters baseline data, identifying gaps, concepts and potential projects, and gaining stakeholder input on these potential actions and projects. WaterSMART funding will enable BTWC staff to build on initial successes and provide a strategic path forward that bolsters additional capacity of the organization. It will also allow BTWC to build on existing watershed planning efforts to create science-based and stakeholder-supported plans and projects that cover a broad suite of Big Thompson Watershed management issues. The continued development of the BTWC contributes to the goals and priorities of the WaterSMART program. Similar to many western watersheds, the Big Thompson Watershed has a range of land and water uses that require a careful balance for effective watershed management. The proposed project focuses on further deepening diverse stakeholder representation and support of the BTWC's watershed programs and the Cooperative Watershed Management Program's conservation stewardship principles. The BTWC and its programs support the sustainable development of watershed resources for multiple uses and ecological improvements for a range of watershed parameters. The proposed project will occur over a two-year period. The proposed project is not located on a Federal facility.

## Background Data

### Watershed and Organizational Background

From its sparkling headwaters in Rocky Mountain National Park to its confluence with the South Platte River, the Big Thompson Watershed provides critical community resources. These include high quality drinking water for approximately 1 million people in over 30 communities, irrigated agriculture for over 600,000 acres, fishing and wildlife habitat, recreational opportunities and aesthetics that are enjoyed by millions as the gateway to the one of the most-visited national parks in the country. The watershed holds special value to

the livelihoods and communities throughout its over 80 miles of waterways and 500,000 acres.

Like several other Front Range Colorado watersheds, the Big Thompson was significantly impacted by the floods of 2013. While flood events are expected and needed for the long-term health and function of riparian ecosystems, without sufficient preparation and system resilience, the impacts of the 2013 events were severe and led to federal disaster declarations throughout the region. In the Big Thompson, two lives were lost and over 6,000 homes, 1,000 businesses, numerous bridges, roadways and other infrastructure were damaged or destroyed. Post flood conditions in the river corridor included severely eroded river banks, millions of tons of soil and deposition that were up to 10 ft. deep in some locations, and significant degradation of ecological, recreational and economic resources. The overall damage in the region was estimated at over \$2 billion. As the state and its many stakeholders prepared for next steps, many wondered who would lead the detailed long-term recovery efforts that crossed numerous land ownerships and types of expertise to create a cohesive and resilient watershed better prepared for future events.

In response to this need, soon after the flood a handful of volunteers met at a local fly shop and formed the group that later became the Big Thompson Watershed Coalition (BTWC) to help private and public groups collaborate over improvements to the health of this treasured area, its wildlife and its communities. The grassroots group formalized into a 501c3 organization in 2016. The overarching goal of the BTWC is to foster resilience in the watershed by providing multi-purpose and multi-stakeholder benefits to water and forest resources, as well as the wildlife and people who depend on them. Since 2013 the BTWC has helped raise over \$10 million dollars in federal, state, and local funds for watershed improvement projects, developed multiple large-scale river management and restoration plans to guide implementation, completed 15 major river, forest and infrastructure improvement projects, and worked with over 150 private landowners and organizations in the process. The BTWC serves a unique function of bringing together public and private land managers and infrastructure owners, agriculture and irrigators, local business, and recreation and tourism interests, and recognizes these sectors as key parts of the Big Thompson Watershed's unique identity, economy, and health.

The BTWC was instrumental in formulating a master plan (Big Thompson River Restoration Master Plan – BTRRMP, which can be found at: [https://bigthompson.co/wp-content/uploads/2019/03/BTWC\\_Master\\_Plan.pdf](https://bigthompson.co/wp-content/uploads/2019/03/BTWC_Master_Plan.pdf)) to guide river recovery projects and implement numerous high priority projects in partnership with multiple federal, state and local groups. Looking to the future, the BTWC and its members are actively and enthusiastically engaging in a holistic, long-term assessment of the watershed. With its initial track record of success and regarded reputation among a diverse set of stakeholders, the BTWC is well-poised to build on this foundation and strategically expand into additional watershed issues as well as expanded geographical areas within the overall watershed.

## **Watershed Description**

The Big Thompson Watershed contains over 80 miles of waterways and 500,000 acres of surrounding lands that serve a diverse set of stakeholders. The system includes headwaters in Forest Canyon of Rocky Mountain National Park and the Glen Haven Area (Upper Big Thompson, Upper North Fork, West and Fox Creeks) and two main tributaries (North Fork of the Big Thompson and Buckhorn Creek.). These tributaries flow into the main stem of the Big Thompson which meets the South Platte River near Milliken, Colorado. Elevations in the watershed range from 11,300 ft. at the headwaters to 4,670 ft. near the confluence with the South Platte. The river system contains canyon, transitional and plains areas throughout the watershed.

The river corridor is heavily managed for water users, including those served by the Colorado Big Thompson (C-BT) project. Co-managed by the Bureau of Reclamation (BOR) and Northern Water, the C-BT project delivers more than 200,00 acre feet of water each year to water users through an extensive set of infrastructure including reservoirs, tunnels, canals, hydroelectric plants and transmission lines. The Big Thompson Watershed also supports over a dozen public and private irrigation companies and related infrastructure through the City of Loveland and surrounding areas, which serve municipalities, agriculture and other industries in the watershed (Figure 6). In addition to serving a range of water user needs, the area provides aquatic and riparian habitat that is enjoyed by millions of recreationalists, residents and visitors, which according to Colorado Parks and Wildlife generates over \$4 million annually to the local economy. Balancing competing uses and interests in the watershed is necessary for overall health and function of the natural and constructed systems.

Similar to other watersheds in the region, the Big Thompson Watershed faces a diverse set of stressors and issues impacting the long-term health and function of the ecosystem. In addition to flood risk and associated impacts, the watershed faces the threat of catastrophic wildfires and its myriad of ecological, community and water resource impacts. The watershed contains municipal and adjacent rural areas that are expected to undergo significant population growth and development over the next 20 years. To prepare for this development, additional planning is needed to ensure that watershed resources can continue to be delivered to community members in a balanced way, including municipal, agricultural and industrial water resource needs, as well as recreational and environmental considerations and land uses. A changing climate further exacerbates these issues. It is anticipated that a changing climate will lead to additional challenges in balancing the multiple land use needs across the watershed and the ability of the natural systems to continue to provide benefits to the diverse sectors.

## ***Future Opportunities for Watershed Enhancement***

Although a great deal of work has been completed and accomplished over the last 5 years, significant opportunities exist to continue to improve and maintain the Big Thompson Watershed into the future. Strategic opportunities exist for additional river and forest health improvements, particularly those with a water quality enhancement focus, as well as collaborative, community-involved planning for future projects and provision of watershed benefits.

Responding to these watershed needs, the BTWC has developed four organizational program areas: River, Forest, Planning, and Community Involvement. In its first years of operation, the BTWC focused primarily on its river program. BTWC river work collaboratively involved diverse stakeholders and community members in projects that aimed to mitigate the impact of future floods to existing infrastructure, while also providing ecological uplift and improvement in the function of the river system. Work focused on highest priority sites identified by the BTRRMP (primarily located in the canyon area of the river corridor), as funds allowed. Opportunities exist for BTWC to partner with stakeholders on similar projects in the future in additional strategic locations.

More recently, the BTWC initiated its Forest Health program, which seeks to reduce the risk of catastrophic wildfire damage and improve forest health through scientifically based best management practices. Prior to the 2013 floods, stakeholders and community members were primarily concerned with declining forest health and the risk of catastrophic wildfire impacts on the wildland urban interface (WUI). After spending considerable time and effort on projects with a flood-related and river ecology focus, there is a desire among BTWC's diverse stakeholders to continue to expand its efforts on planning and implementing forest health and wildfire mitigation projects. With its steep terrain and limited access to many forested areas, the Big Thompson Watershed contains many challenges as well as opportunities for strategic projects. As BTWC continues to build its Forest program, additional outreach and involvement of stakeholders with forest health interests in the heavily forested areas of the Upper Watershed and Buckhorn is needed. Additional efforts are needed to plan and prioritize strategic, scientifically sound forest management projects. Collaboration with partners is also needed to evaluate how these practices impact other related Big Thompson Watershed issues, such as water quality improvements.

A diverse set of stakeholders are interested in further protecting and enhancing the water quality of the Big Thompson River. Currently the watershed contains a high quality source of water for many downstream municipalities. BTWC is interested in working with its close partners at Northern Water and the Big Thompson Watershed Forum (BTWF) to maintain and improve water quality throughout the watershed. The Big Thompson Watershed contains several river segments and tributaries that are classified as impaired on the Clean Water Act State 303(d) list, as well as additional parameters of concern on the CDPHE state monitoring and evaluation list for water quality (See Table 2 for more information). Impairments include a range of metals such as copper and arsenic and temperature issues, and other issues like elevated selenium levels. There is a well-documented link between forest management and water quality. The BTWC and its partners seek to prioritize locations for forest health projects to positively impact water quality issues, determine specific forest management practices that are most advantageous for the watershed, as well as monitor results.

The BTWC has recently partnered with a diverse set of stakeholders, including municipal, irrigation and agricultural, industry, environment, and recreational interests to launch a more in-depth planning process to help balance water resource needs in the Big Thompson

over the next 20 years. Titled the Big Thompson River Envisioning Project, the goal of the stream management planning effort is to develop a collaborative multi-objective and voluntary plan to balance competing water use needs and protect and enhance the river corridor. The plan will collaboratively involve diverse stakeholders, and incorporate a range of scientific assessments (hydrology, geomorphology, aquatic and riparian habitat, water quality, etc.) to further identify key stressors currently impacting the river corridor, those anticipated in the future due to land use and climate change, and opportunities for beneficial long-term projects. The plan is currently focused on a 15-mile segment of the Big Thompson River, with the hope of expanding the project in the future to additional areas of the watershed, based on stakeholder interest and support. In addition to geographic expansion, the BTWC and partners also desire to build on the current effort and to fill a critical gap by assessing and integrating upland watershed issues and their connection to the river corridor, water quality, and holistic watershed management.

The proposed project for CWMP funding, titled “Building Continued Capacity and Long-Term Benefit for the Big Thompson Watershed” would allow the BTWC to build on its foundation of collaborative watershed management and initial successes, and expand its work to focus on these additional watershed issues and geographies. The proposed project and funding would support BTWC to engage in strategic planning for the organization with its stakeholders for this next phase of Big Thompson Watershed work. In addition, it would allow BTWC to conduct further outreach and diversify its representation across the watershed. Finally, CWMP funding would be used to conduct critical pre-planning activities related to forest health. These planning efforts would complement other BTWC and partner efforts to assess the condition of the watershed and develop strategic projects and actions to benefit the watershed and its communities.

#### **Prior work with Bureau of Reclamation**

As part of its flood recovery efforts, BTWC partnered with multiple stakeholders on a two-year planning process for a large-scale US34/Big Thompson Canyon restoration project. This project collaboratively rebuilt and restored large sections of US-34 roadway and associated infrastructure, while restoring key sections of the main stem of the Big Thompson River. Key partners included Colorado Department of Transportation (CDOT), BTWC and a broad set of state, federal and local agencies. Representatives from Bureau of Reclamation (BOR) were part of this large stakeholder and collaborative design process that was conducted in 2016-2017. BTWC plans to involve BOR representatives, as time and interest allows, to participate in the forest pre-planning activities described as part of this CWMP grant, given their importance to the C-BT water system and infrastructure located in the Big Thompson Watershed.

#### **Project Location**

The BTWC currently works in the Big Thompson Watershed, HUC 10190006, located primarily in Larimer County, Colorado, with some southern and eastern portions of the watershed located in Boulder and Weld Counties. The watershed contains Rocky Mountain National Park and multiple small mountain communities located in the upper watershed, dispersed subdivisions in the Buckhorn area (northwest of Loveland), the City of Loveland

and it surrounding urban corridor, as well as several small municipalities in the Eastern/Lower portion of the watershed.

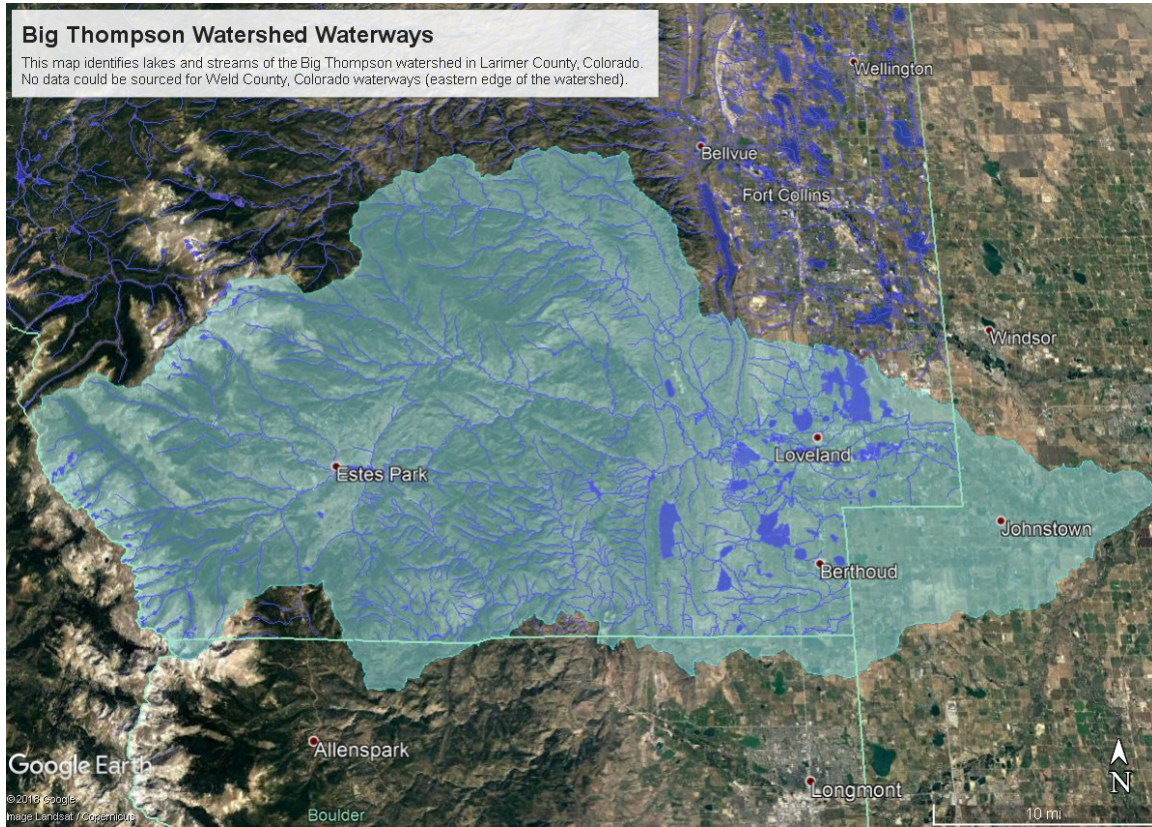
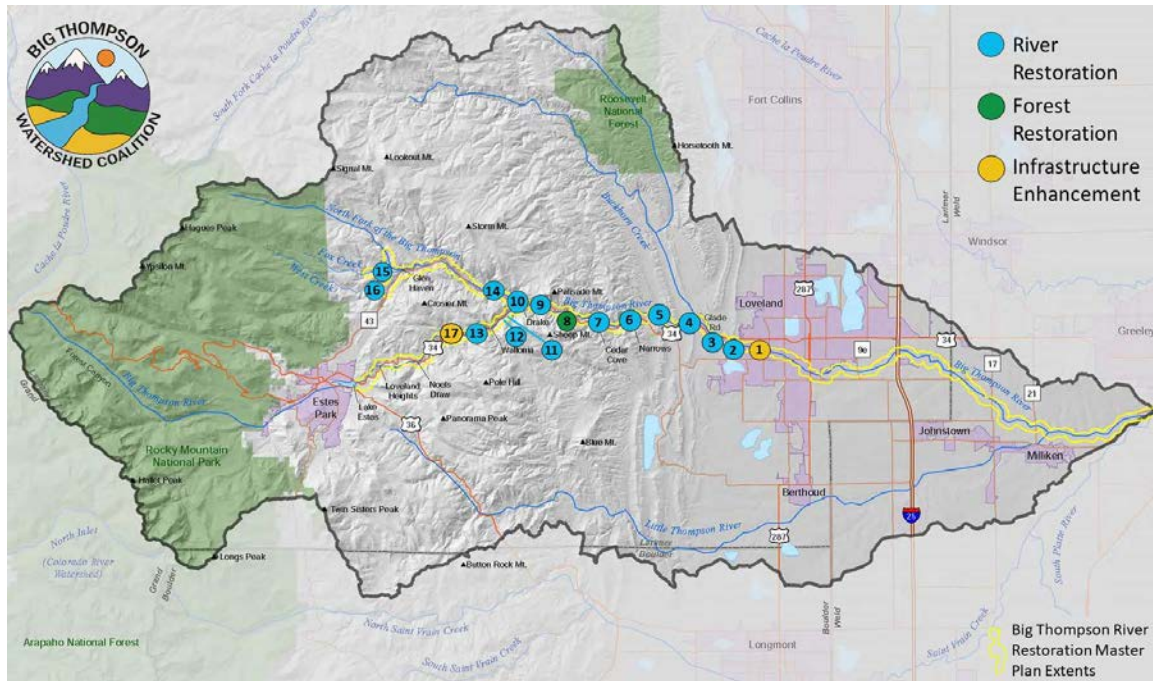


Figure 1 Big Thompson Watershed Overview Map





**Figure 2 - BTWC Projects in the Big Thompson Watershed**

The BTWC’s founding master plan (BTRRMP) covers the main stem of the Big Thompson to its confluence with the South Platte River and key tributaries. To date, BTWC implementation projects have primarily focused on areas in the Upper watershed areas (Big Thompson Canyon and associated small communities, Glen Haven and tributaries, North Fork of the Big Thompson Tributary) through the City of Loveland portion of the watershed, an approximate 30-mile stretch of river. See Figure 2 for more information on past project locations.

The proposed CWMP project would expand BTWC presence and projects to additional sections of the Big Thompson Watershed, such as the forested areas of the Upper watershed and Buckhorn, and the Lower portion of the watershed out to the confluence with the South Platte River.

**Technical Project Description**

**Applicant Category & Eligibility**

The BTWC is applying for the BOR Cooperative Watershed Management Funding as an existing entity. The BTWC is an existing grassroots watershed group that is non-regulatory. The BTWC focuses on watershed health, including issues related to water availability and quality and promotes sustainable and balanced use of water resources in the watershed. The BTWC is governed by a voluntary Board of Directors with a governance structure focused on consensus-based decision making. Currently, the Board of Directors and Advisory Committee includes representatives from a broad set of stakeholders, including municipal government reps (City and County), a water resource organization (Northern Water), recreation and environmental interests (Local Trout Unlimited Chapter), a local nonprofit focused on water quality (Big Thompson Watershed Forum) and

restoration (Wildlands Restoration Volunteers), a local Fire Authority (Loveland Fire and Rescue), and several private property owners who reside in multiple locations in the watershed, including the Upper Watershed, City of Loveland and Buckhorn areas. Additional partners who have been closely involved in collaborative BTWC projects include federal and state agencies (US Forest Service, Natural Resources Conservation Service, Colorado State Forest Service, Colorado Water Conservation Board, Colorado Division of Water Resources, CDOT, and Colorado Department of Local Affairs), a working ranch and environmental center (Sylvan Dale Ranch and Heart J Center for Environmental Education), local businesses (Loveland Ready Mix – a gravel pit and cement company, Sweet Heart Winery), and local irrigators and ditch companies (Southside Ditch, Greeley Loveland Irrigation Company). The BTWC is a 501c3 organization that serves a unique role as the primary convener of stakeholders, gaining collaborative input from the diverse sectors, organizations, and representatives in each BTWC project.

### Goals and Objectives

The BTWC's mission is to protect and restore the ecological health of the Big Thompson Watershed for the use and enjoyment of our community today and for future generations. The organization's overall goal is to create a healthy and resilient Big Thompson Watershed that benefits the fish, wildlife and people it serves. The overarching organization objective is to foster resilience by providing multi-purpose and multi-stakeholder benefits to water and forest resources, as well as the ecological and human communities that depend on these resources. BTWC's guiding values include: 1) Restore watershed function; 2) Sustain resources for the watershed; 3) Partner for an all-lands approach; and 4) Engage the community through participation, outreach and education.

Within the proposed CWP project, the following goal, objectives and tasks will be utilized.

**Goal:** Strategically plan for long-term work in the Big Thompson watershed in a scientifically sound and collaborative manner.

**Objective 1:** Ensure group consensus around a specific set of goals, objectives, tasks and strategies in an organizational strategic plan to guide future programmatic work;

- **Tasks include:** Hire third party facilitator to guide process, conduct stakeholder outreach and input to inform planning process, develop strategic plan and gain consensus on final draft, conduct initial implementation, and evaluate outcomes of initial implementation.

**Objective 2:** Use past project successes and partnerships to establish trusted relationships and involvement of an expanded set of stakeholders in the BTWC.

- **Tasks include:** Conduct outreach to potential new BTWC board members, refine existing informational resources such as the website, quarterly newsletters, handouts and brochures, and develop new resources that communicate key information on BTWC programs and projects.

**Objective 3:** Conduct scientifically based pre-planning activities that build from existing plans and data to identify baseline conditions, gaps, needs, and future project opportunities for forest health watershed management.

- **Tasks include:** Review existing plans and data, compile data and produce visualizations to assist in communication, gather stakeholder and community input on existing data and future opportunities, conduct site visits to gain on the ground perspective on potential projects, and create summary report highlighting potential projects and actions for further development.

### **Approach**

To accomplish these project goals and objectives, the proposed project will focus its efforts on a set of activities identified in the CWMP Funding Announcement as “Task A Water Group Development.”

### **Organizational Development Background**

Soon after forming, the BTWC conducted some initial strategic planning for the organization, which included establishing a mission, vision and initial work plan. In 2016 the organization was in the process of managing millions of dollars of federal flood recovery implementation funds with very short durations and demanding timelines for completion, providing limited time for the development of the organization itself. Despite these challenges, the BTWC conducted some initial organizational development activities, including completing the process of becoming a 501c3, creating organizational bylaws, an official governance structure and policies and procedures for conducting operations. BTWC Board and staff also revisited the mission and vision and formed guiding principles and goals that informed its subsequent work plans and projects. BTWC conducted initial outreach activities, including creating an annual outreach plan and informational materials such as brochures, the website ([www.bigthompson.co](http://www.bigthompson.co)) and the organization’s first Annual Report (<https://bigthompson.co/wp-content/uploads/2019/03/BT-Annual-Report-final.pdf>). BTWC established bimonthly Board meetings that are open to the public, and a broad list serve of over 500 stakeholders, which receive notices for each public meeting and other organizational and programmatic updates. BTWC also conducted project specific meetings to gather information from diverse stakeholders about watershed issues and needs in specific locations. Finally, BTWC conducted additional pre-planning activities, including researching existing data and plans and other baseline information. From these efforts, the organization developed the BTRRMP, which guided its subsequent flood recovery and river improvement projects and has served as a foundation for other expanded master and stream planning efforts. These plans have provided a scientifically sound foundation for the organization and partners to conduct initial restoration work.

As the BTWC enters the next phase of work and development, the organization needs to revisit and refresh its strategic plan to guide future efforts in a thoughtful manner. The proposed project will provide resources to cover this critical gap, as well as conduct expanded stakeholder outreach and pre-planning watershed activities to complement planning efforts currently underway and support future expanded efforts. These critical items will set the stage for continued success for the BTWC and its many watershed partners on a range of watershed issues and geographies.

## *Approach & Methodology*

### **Task 1: Conduct Organizational Strategic Planning to guide future organizational development and work**

The BTWC will use established processes and resources from the Council of Non-Profits<sup>1</sup> and Washington NonProfit Institute<sup>2</sup> to guide its organizational planning process. The overall process will follow the Strategic Planning in Nonprofit<sup>3</sup> elements, including: Prepare, Listen, Envision, Plan, Execute, and Evaluate. BTWC will hire a third party facilitator to lead the planning process, which will include soliciting and incorporating stakeholder input. The stakeholder input process will utilize tools such as focus groups, community meetings, and surveys to gain input. This critical component of the planning process will build on prior BTWC Board efforts from 2018 where a BTWC Board committee conducted interviews with several stakeholders from diverse sectors, including agricultural, municipal, environmental, recreational and business communities, to gauge interest in future watershed work. In addition to consulting with an experienced strategic planning facilitator, BTWC will harness internal knowledge from current Board Directors who are experienced in non-profit management and strategic planning processes. The planning process deliverable will be a strategic framework and plan that contains an updated mission, vision, strategic priorities, and SMART objectives tied to each priority. After completing the plan, BTWC Board and Staff will conduct initial implementation of the plan, which will include creating a public version of the plan and periodic updates on related progress. Finally, the BTWC Board and Staff will conduct initial evaluation of the plan, creating indicators and processes to help the group learn whether organizational activities are producing the desired results the group seeks to accomplish.

### **Task 2: Implement Outreach Plan to establish diverse representation in organization**

A critical part of past BTWC efforts has been the creation and implementation of an annual outreach plan. It is expected that one of the outputs of Task A will be a revised stakeholder outreach plan with related tasks and deliverables. BTWC will use the organizational strategic planning process, as well as the Advisory Committee recently formed for its Big Thompson River Envisioning Project, to engage additional stakeholders and fill gaps that currently exist within representation on the BTWC boards.

As BTWC enters its next phase of watershed work, the organization's Forest Program requires the organization to target the participation of landowners and stakeholders in the Upper and Buckhorn portions of the watershed who manage forested areas in need of forest health and wildfire mitigation actions. For the BTWC's expanded River and Planning Programs, it is important for the organization to enhance the participation of representatives from the Lower portion of the watershed, which includes several ditch companies with senior water rights, local business and industries, small municipalities, and agricultural and ranching interests. The Big Thompson River Envisioning project is successfully starting to engage many of these stakeholders and BTWC will need to continue

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<sup>1</sup> <https://www.councilofnonprofits.org/tools-resources/strategic-planning-nonprofits>

<sup>2</sup> <https://www.wanonprofitinstitute.org/planning/>

<sup>3</sup> <https://www.wanonprofitinstitute.org/wp-content/uploads/2018/01/@SPiN-KIT.pdf>

to develop these relationships for additional work in this portion of the watershed. To help build these new and expanded relationships in expanded portions of the watershed, BTWC staff and board members will familiarize stakeholders with its story, mission and accomplishments to date, as well as provide information as to how these groups can participate in relevant BTWC programs and projects. To achieve these objectives, BTWC staff will continue to refine and develop informational materials that communicate key information about the organization and its programs, including the BTWC website, newsletter, videos, and other engagement materials.

**Task 3: Execute Watershed Restoration Pre-Planning Activities: Identify Forest Health and Water Quality issues and develop watershed restoration needs.**

A watershed restoration planning effort is underway in the BTWC's Big Thompson River Envisioning project, which focuses on river corridor health components in a 15-mile stretch of river through the City of Loveland Growth Management area boundaries. This project focuses on planning and assessment that covers both water quantity and water quality issues in the area to the extent possible. To complement that effort and start to cover gaps the project's current scope, BTWC staff will conduct pre-planning activities related to forest health and related watershed management considerations. These activities will help inform completion of a future planning effort that aligns with EPA guidance on watershed plans, and will include key components such as: characterize the watershed's forest health conditions, identify and prioritize forest management actions and projects, and create a monitoring plan to determine impacts on water quality concerns.

BTWC staff will compile and review existing plans, reports and restoration activities focused on forest health, water quality and other related watershed management and health impacts. BTWC will work with project partner BTWF closely on this task given their expertise and existing extensive dataset related to water quality in the watershed. The Project Manager will work with partners including USFS, CSFS, Loveland Fire Rescue and Authority and CSU CFRI to create a visual representation of restoration activities implemented throughout the watershed. Key information will be made available on the BTWC's website. These initial desktop analyses and representations will help in part to characterize baseline conditions in the watershed related to forest health considerations.

The Project Manager will engage its diverse stakeholders and community members to gain input and identify additional forest restoration needs in the watershed. BTWC will work with partners in the watershed engaged in forest health and wildfire planning, such as the Loveland Fire Rescue and Authority's Community Wildfire Protection Plans CWPP) to implement community planning events and obtain input in a collaborative and transparent manner. BTWC staff will spearhead a collaborative process to: review available data, identify information gaps, refine information needs, identify relevant restoration concepts, and develop potential collaborative restoration projects. As part of this process, BTWC will develop and host a minimum of two community workshops and conduct up to 20 site visits on private properties to gain site-specific input. BTWC will also contract with a forestry consultant to assist with analyzing current plans and data related to forest health and restoration activities, accompany staff on key site visits and provide additional learning and capacity building for BTWC staff on forest health issues. The culmination of this task

will be a report summarizing baseline data, information gaps and needs, and initial restoration concepts and projects.

***Key Milestones and Implementation Timeline***

Key activities and milestones, as well as estimated cost and overall timeline for implementation are provided in Figure 3 for each of the overall tasks described in the previous section. Note that the timeline for implementation is flexible and can be adjusted depending on needs of the grant administrator.

Activity	Milestones	Timeline								
		2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	
<b>Task 1: BTWC Strategic Plan - Task Total Est Cost is \$22,279.68</b>										
Hire facilitator	Facilitator in place to execute planning process									
Conduct stakeholder outreach & input	Summary of methods used and input received									
Develop strategic plan	Approved plan in place including goals, objectives, strategies									
Conduct initial implementation	Public version of plan and periodic updates on progress									
Evaluate initial implementation	Report with indicators gauging progress and outcomes to date									
<b>Task 2: Stakeholder Outreach - Total Est Cost is \$20,916.50</b>										
Outreach to potential new BTWC Members	New BTWC members engaged in org, programs and projects									
Refine existing informational resources	Updated website, quarterly newsletter and brochures									
Develop new informational resources	New videos on key programs and projects									
<b>Task 3: Watershed Restoration Pre Planning Activities - Total Est Cost is \$19,565.97</b>										
Review existing plans and data	Data compilation and visualization									
Gather stakeholder and community input	Executed community workshops and site visits									
Create summary report	Final draft report incorporating stakeholder input									

Figure 3 - Implementation Timeline

## Evaluation Criteria

### Evaluation Criterion A— Watershed Group Diversity and Geographic Scope

#### *Sub-criterion No. A1 Watershed Group Diversity*

Over the past five years, BTWC has worked with a diverse set of partners to plan and implement multi-objective and multi-benefit watershed projects. Partners have included:

**Federal Agencies:** US Forest Service, NRCS, The Nature Conservancy

**State Agencies:** CDOT, Colorado Water Conservation Board, Colorado Department of Local Affairs, Colorado Parks and Wildlife, Colorado State Forest Service

**Local Agencies:** Larimer County, City of Loveland, Big Thompson Conservation District, South Platte Basin Roundtable, City of Greeley, Loveland Fire and Rescue Authority

**Water Resources:** Northern Water Conservancy District, CO Division of Water Resources

**Environmental and Recreation:** Rocky Mountain Flycasters (Local Trout Unlimited Chapter), Wildland Restoration Volunteers, Big Thompson Watershed Forum, Colorado Open Lands, Peaks to People Water Fund; Estes Valley Watershed Coalition, Little Thompson Watershed Coalition and several other local watershed coalitions in the region

**Agriculture and Irrigators:** Loveland Ready Mix, Sylvan Dale Guest Ranch, Southside Ditch, Greeley Loveland Irrigation Company

**Local Businesses:** Loveland Ready Mix, River Forks Inn, Sweet Heart Winery

**Academia:** CSU, Colorado Forest Restoration Institute

**Private Property Owners:** Over 150 private property owners

Continuing to develop diverse partnerships is a primary focus of current and ongoing BTWC projects and planning efforts.

BTWC organizational membership in its volunteer Board of Directors and Advisory Committee is fairly diverse. The organization's first Board of Directors was composed primarily of private property interests. In 2017 the BTWC began a process to revise its bylaws and governance structure to allow for greater diversification. As the organization considers and plans for future work in expanded geographies in the watershed and for a broader array of watershed issues, further diversification to represent these entities is desired.

Current representation within the BTWC Board includes the following organizations as shown in Table 1.



**Table 1 - Current Representation on the BTWC**

Organizational Structure	Representation
<b>Board of Directors</b>	<ul style="list-style-type: none"> <li>• Private Property Owners (Upper watershed, City of Loveland, Buckhorn areas)</li> <li>• At-Large Community Members</li> <li>• Larimer County Dept. of Emergency Mgmt.</li> <li>• Northern Water</li> <li>• Rocky Mountain Flycasters/Trout Unlimited</li> <li>• Big Thompson Conservation District</li> </ul>
<b>Advisory Board</b>	<ul style="list-style-type: none"> <li>• City of Loveland</li> <li>• Big Thompson Watershed Forum</li> <li>• Wildlands Restoration Volunteers</li> <li>• Loveland Fire Rescue Authority</li> <li>• Sylvan Dale Guest Ranch</li> </ul>

BTWC staff will conduct outreach to additional stakeholders in the expanded geographies and watershed issue areas to solicit participation in the organization. This will include outreach to downstream municipalities such as the towns of Evans, Johnstown, Milliken and Greeley, additional agricultural and irrigation interests, forest health and wildfire mitigation interests, and additional private property owners in the Buckhorn, Lower and Upper portions of the watershed that have not yet engaged with BTWC programs and projects. Some of these groups have participated in specific BTWC projects in the past or are starting to engage with BTWC on current projects and initiatives, but have not participated in the governance of the organization itself. Stakeholders from some of the watershed geographic areas, such as many of the Buckhorn and Lower watershed stakeholders, have not engaged with the BTWC and may not be aware of the organization and its mission, past accomplishments and current priorities. BTWC staff will continue to produce and disseminate information and materials that further describe the BTWC and its programs and key projects. The BTWC provides a unique function in convening a range of public and private interests on a regular basis to discuss watershed issues and come together on projects that benefit the watershed and its many land uses and interests. Increasing the diversity of those represented within the organization itself will help the BTWC better serve the long-term health of the watershed. The Big Thompson Watershed, similar to other western watersheds, has a range of watershed uses such as municipal, agricultural, industrial, ecological, and recreational, among others. Finding balance among these interests has been a focal point of BTWC projects in past and current projects. Increased diversity on the BTWC Board will help bolster long-term effectiveness of the organization on a range of watershed issues and projects.

***Sub-criterion No. A2 Geographic Scope***

The BTWC currently serves a large portion of the Big Thompson Watershed (HUC 10190006). Neighboring local coalitions serve other portions of the watershed in the Estes Valley and Little Thompson sub-watershed areas, and the BTWC has

collaborated with these groups in the past on projects that serve the greater region as a whole, such as the Regional Stream Stewardship & Recovery Handbook for Private Property Owners (<https://watershed.center/wp-content/uploads/2017/10/Website-version-Stream-Stewardship-and-Recovery-Handbook.pdf>).

While many groups contain general interests in watershed health and function that span the full geography of the watershed, there are several areas within the watershed that have some specific interests and areas of focus for the BTWC and its partners. Federally owned lands comprise a large portion of the Upper watershed, which also includes the Estes Valley, Glen Haven, Storm Mountain, and Drake communities. The Upper watershed also contains numerous private property owners, the C-BT water system that serves over 30 downstream communities, and a sport fishing/trout fishery of great interest for recreationalists and that contributes significantly to the local economy. The Buckhorn area, similar to the Upper watershed, contains a mix of federally-owned lands (primarily USFS lands), County roads and infrastructure, and a diverse set of private properties. Both the Upper and Buckhorn portions of the watershed are heavily forested, dominated by ponderosa pine systems, and of interest to forest health and wildfire mitigation partners. The City of Loveland area contains a mix of city-owned and private properties serving diverse land uses, local business and industry, as well as multiple local irrigation companies and infrastructure. The Lower portion of the watershed contains additional irrigation companies and infrastructure, several small municipalities, and agricultural, ranching and other private property interests.

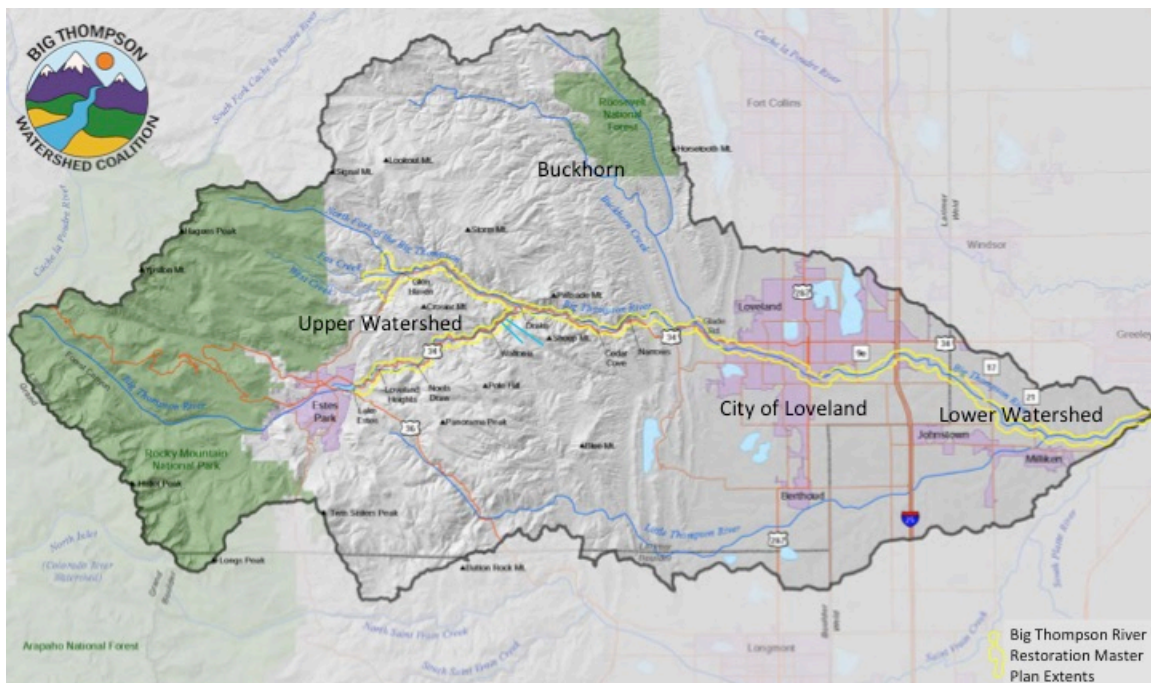


Figure 4 - Big Thompson Watershed Overview & Focal Areas

The BTWC Board Governance Committee has recognized a need for greater diversity in representation within the organization. The BTWC originally contained representatives primarily from private property, ecological and recreational interests in the Upper watershed areas. Over the last few years, the BTWC broadened representation to include entities with interest in additional watershed issues, such as Northern Water and Big Thompson Watershed Forum, as well as to include local agency representation. The Board is interested in recruiting representatives from the Lower portion of the watershed including local businesses, irrigators and private property owners, as well as entities with forest health and wildfire mitigation interests in the Upper and Buckhorn watershed areas, such as USFS, CSFS, BOR, local Volunteer Fire Departments and others. These additional representatives will allow the organization to more fully cover the geography and related watershed management issues across the watershed.

## **Evaluation Criterion B — Addressing Critical Watershed Needs**

### ***Sub-criterion No. B1 Critical Watershed Issues***

Critical issues in the Big Thompson Watershed include a range of impacts from severe disturbances, such as floods and fires, and potential impacts from forecasted changes to the area including land-use changes, development and climate change. These issues will likely have significant impacts on water quantity and water quality issues, which are currently facing challenges to ensure a balance for diverse set of stakeholder and land use needs. BTWC conducted stakeholder interviews and initial assessments over the last five years in partnership with federal, state and local agencies and other watershed groups to identify critical issues and opportunities for future improvement. Pre-planning activities conducted in the watershed will continue on this trajectory and will involve the input of these stakeholders to further identify issues and develop future potential projects.

### **Natural Events and Ecological Resilience**

As evidenced by impacts from the 1976 and 2013 Floods and the Bobcat Fire in 2000, the Big Thompson Watershed faces significant impacts and challenges from large disturbances such as floods and fires. This is in part due to the multiple, and at times competing, land uses throughout the watershed and the heavy influence of infrastructure (including road, bridges, homes, businesses, irrigation infrastructure, and other structures) located in the floodplain and in the WUI. The BTRRMP conducted post-flood assessments of flood and geomorphic risk, which evaluated the presence of infrastructure in the floodplain and the past history and trends of severe erosion, deposition and avulsion. The plan characterized the river reaches in the Upper watershed as having a higher risk for damage during flooding events due to its steep topography and high concentration of infrastructure located in the floodway and floodplain. The BTRRMP also evaluated impacts to the ecology of the river system from the 2013 flood, including riparian and aquatic habitat. Although many segments' ecology recovered fairly quickly with few interventions post-flood, other areas throughout the watershed had a complete lack of natural communities to effectively rebound. Additionally, many segments throughout the watershed

contained fish passage barriers posed by infrastructure, which made recovery more difficult without restoration intervention and treatment. Multiple stakeholders have worked together on a variety of projects to thoughtfully restore and recover many sections of the river in a manner that will incur less damage during the next flood event and to promote enhanced river function during normal flow years.

The Big Thompson Watershed is also at risk for large-scale and high severity wildfire. Over a century of fire exclusion has resulted in overly dense forest conditions that are more prone to pests, disease, and destructive high-intensity wildfire. The Big Thompson Watershed has been identified as a high wildfire threat area and a high priority forest management zone on the Colorado Wildfire Risk Assessment Portal<sup>4</sup>. Likewise, the BTWC has worked with forest health organizations, such as the Peaks to People Water Fund and Colorado Forest Restoration Institute at CSU, to utilize a Watershed Investment Tool that estimates the benefits of forest fuels reduction in the Big Thompson Watershed<sup>5</sup>. This tool focuses factors that will reduce the risk of wildfire impact on critical water supplies and infrastructure. In the Big Thompson Watershed, a major concern is potential impact to the C-BT infrastructure primarily located in the Upper watershed area. An initial risk assessment provided by the tool is pictured in the map in Figure 5. The tool and resulting map estimates risk from a given pixel in terms of the likelihood of sediment delivery based on data from CFRI and Peaks to People Water Fund, and does not account for direct wildfire risk to infrastructure, which is also likely significant. The proposed CWMP project will build on these assessments of risk to characterize existing conditions, identify current and ongoing project locations, and develop restoration actions and future projects to improve forest health.

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<sup>4</sup> <https://csfs.colostate.edu/wildfire-mitigation/cowrap/>

<sup>5</sup> <https://peakstopeople.org/watershed-investment-tool/>

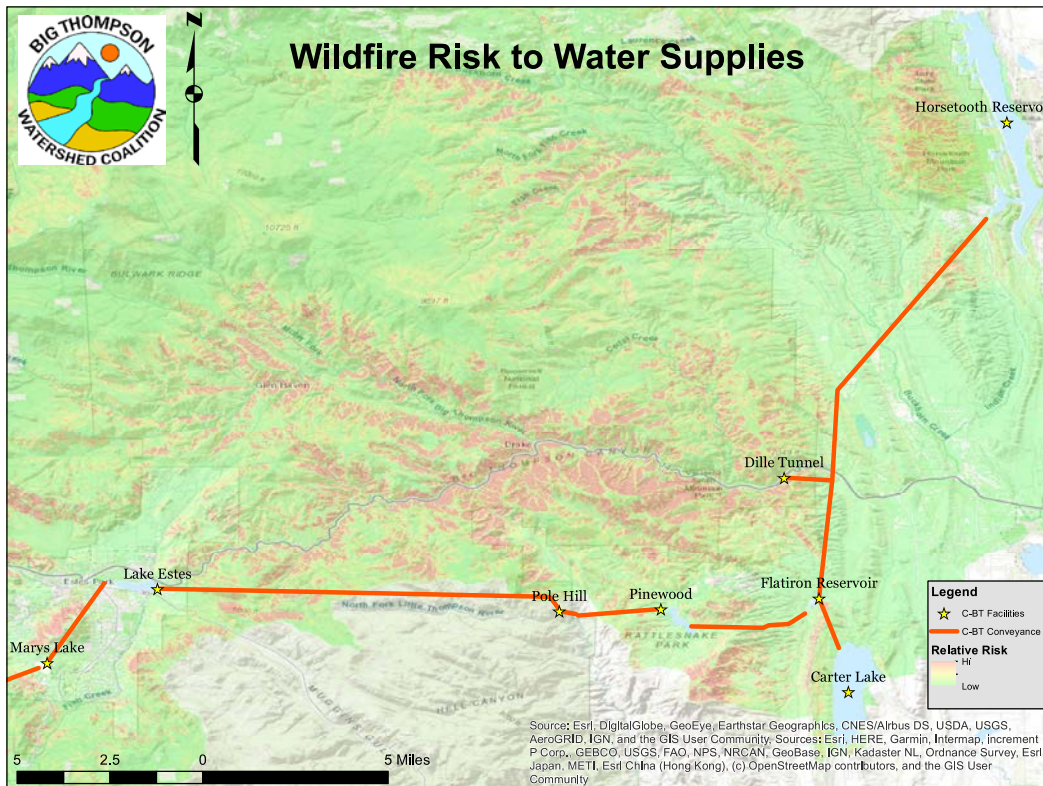


Figure 5 - Potential Risk to the C-BT Water System from Wildfire in the Big Thompson Watershed

### Future Changes to Land-Use and Climate

Similar to other watersheds in the Front Range of Colorado, the Big Thompson Watershed is expecting significant population growth over the next 20 years, which will lead to land-use changes and a range of impacts in the watershed. Strategic growth and development is needed to allow for sufficient protection of the riparian corridor and to avoid development in heavily forested and areas at high risk for wildfire. Additionally, climate change is likely to further exacerbate challenges in balancing water use needs. Currently the watershed has a diverse set of water and land uses and water supply is already stretched thin to support these diverse uses. Climate change will likely impact systems that capture and manage flows from the snow-melt driven system to support year round water uses. Land-use and climate changes also have the potential to impact water quality in the Big Thompson by further exacerbating trends in a range of parameters. Finally, a warming climate has the potential to exacerbate trends in forest health conditions and increase wildfire risks. Future development, land use and climate change are a component of the Big Thompson River Envisioning Project that is currently underway, and will lead to further characterization of the potential impacts these issues may play on watershed management and resources. Forest health and wildfire mitigation plans should take these factors and their potential impact on forest conditions into account.

## Water Quality

Based on information from project partner BTWF, who has developed a high quality dataset spanning 20 years, the Colorado Water Quality Control Division has identified 12 river segments on the Big Thompson Watershed and its tributaries on the impaired list and monitoring and evaluation list per section 303(d) of the Clean Water Act<sup>6</sup>.

**Table 2 - Big Thompson River and Tributary Segments with Water Quality Impairments**

WBID	Segment Description	CO Monitoring & Evaluation Parameters	Clean Water Act Section 303(d) Impairment
COSPBT01	Mainstem of the Big Thompson River including all tributaries and wetlands, within RMNP		Cu, As
COSPBT02	Big Thompson River and tribs, RMNP to Home Supply diversion		As, Macro invertebrates, Cu, Temp, pH
COSPBT03	Mainstem of the Big Thompson River from the Home Supply to the Big Barnes diversion		Cu, As
COSPBT04a	Mainstem of the Big Thompson from the Big Barnes Ditch of the GLIC diversion.		Se
COSPBT04b	Big Thompson River, GLIC diversion to CR11H		Se
COSPBT05	Big Thompson River, I-25 to S. Platte River	E. Coli	Se
COSPBT07	Mainstem of the North Fork of the Big Thompson from RMNP to confluence; Buckhorn Creek	Mn	Cu, As
COSPBT08	Mainstem of the Little Thompson River, from source to the Culver Ditch diversion.	Temp	As
COSPBT09	Little Thompson River, Culver Ditch to Big Thompson River		Se, E. coli (May-October)
COSPBT10	Tributaries to the Little Thompson River	D.O.	
COSPBT11	Carter Lake		Hg, As
COSPBT16	Lakes and reservoirs tributary (RMNP to Home Supply)		Cu, Pb

<sup>6</sup> Big Thompson Watershed Forum Cooperative Monitoring and Assessment Program 2019 Sampling and Analysis Plan

Upper watershed water quality issues include elevated levels of heavy metals and temperature and are potentially due in part to forest health conditions and management. Moving downstream in the watershed, water quality issues include elevated selenium and nutrient levels, temperature and aquatic life impairments. These issues may result in part from low discharge levels, dewatering, and agricultural and livestock practices. Further assessment and continued monitoring can help to clarify causes and identify potential management actions to help improve parameters of concern.

### Water Quantity

The Big Thompson Watershed water supply serves multiple water uses, including municipal, agricultural, industrial, ecological and recreational uses. Dewatering events occur in the City and Lower areas of the watershed during low flow periods after peak flows have occurred. Water diversions providing supplies to multiple sectors have the water rights and ability to dewater sections of the river during these times. In addition to the C-BT system infrastructure located primarily in the Upper watershed, there are several major irrigators and infrastructure in the City and Lower watershed areas, as shown Figure 6.

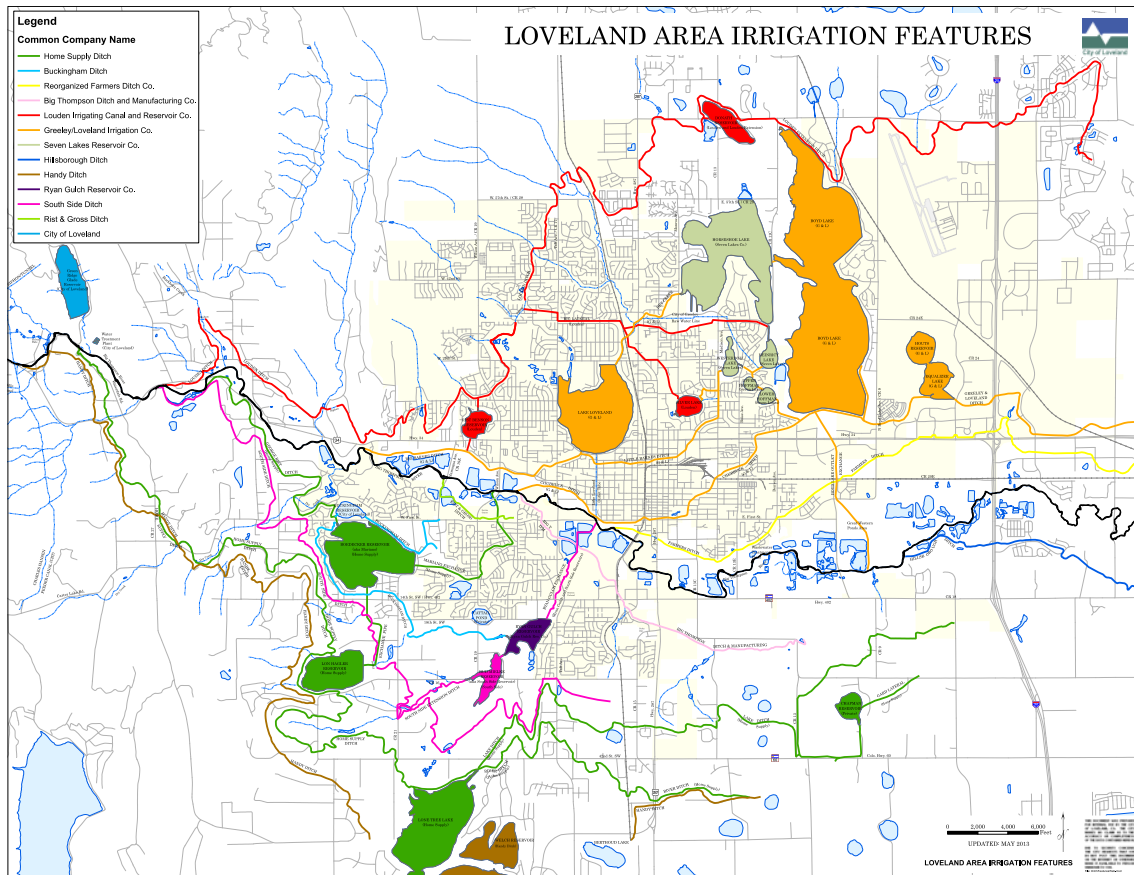


Figure 6 - Irrigation Companies and Infrastructure in the City and Lower Watershed Areas

Evaluating flows and potential strategies for improvements during low flow periods is a component of the Big Thompson River Envisioning Project. Further characterization of constraints and opportunities to balance water quantity for municipal, agricultural and ecological and recreational needs will be developed in partnership with a diverse set of stakeholders as part of this project.

### **Aquatic and Riparian Habitat and Species of Concern**

The Big Thompson Watershed is a transitional zone that contains cold-water habitat dominated by salmonids to warm water habitat dominated by native, small-bodied fishes. Species include multiple sport fishing, non-native trout species (Rainbow and Brown Trout) and native fish species (Long-nose Sucker, Long-nose Dase, Fathead Minnow and other species). Colorado Parks and Wildlife has conducted fish counts in multiple locations in the watershed, primarily in the Upper watershed areas, and determined that in many locations sport fish populations are starting to rebound after the 2013 Flood and the significant construction and repair efforts that extended into 2018. Factors inhibiting healthy populations of sport-fishing and native species include a lack of geomorphic bedforms and riparian habitat, as well as multiple fish barriers posed by infrastructure located in the floodplain. These factors, particularly fish passage barriers, are a focus of additional planning efforts for future restoration. Invasive species are primarily vegetative and include crack willow, Russian olive, Siberian Elm, cheatgrass, mullein, and invasive thistle species. Species of concern in the watershed include the Preble's Meadow Jumping Mouse, which is designated as a federally threatened species under the Endangered Species Act. Although not documented to be present within the Big Thompson Watershed, it is a keystone riparian species in the region and potential habitat for the species is found within the watershed.

### *Sub-criterion No. B2 Developing Strategies to Address Critical Watershed Issues*

#### **Stakeholder Outreach and Partnership Building**

The BTWC will address this diverse set of critical watershed issues by further developing stakeholder relationships and incorporating stakeholder input into the development and strategy of the overall organization, as well as into watershed management project concepts. Specific stakeholder and outreach strategies include: Expand diversity of representation on the BTWC Board of Directors and Advisory Committee, build additional BTWC capacity for outreach to diverse groups, develop and present outreach and informational materials, hold stakeholder meetings and workshops, and conduct pre-planning activities related to forest health issues, including gaining stakeholder input on existing data and potential projects.

In its relatively short existence as an organization, BTWC has developed strong relationships with a diverse set of public and private land managers and organizations. This includes federal, state and local municipal agencies, as well as other non-profit and watershed organizations. Through these partnerships, BTWC has established organizational practices focused on collaboratively developing projects and using best-available science to base watershed management actions.



These partnerships and track record of successful on multi-objective projects help the BTWC serve as an effective convener for planning efforts and implementer of on-the-ground projects that benefit the watershed.

BTWC will continue to build relationships and partnerships with local conservation groups that advocate for balanced stewardship, including Rocky Mountain Flycasters/ Trout Unlimited, Wildlands Restoration Volunteers, and Colorado Open Lands. These organizations currently have representatives on the BTWC Board and Advisory Committee, and/or are actively engaging with other BTWC led planning efforts. BTWC plans to further engage additional organizations with a forest health focus in pre-planning activities, including the local Conservation District, Colorado Forest Restoration Institute (CFRI), and BTWF. These entities will provide baseline data and analysis (where applicable), participate in stakeholder meetings and provide comments on potential forest health projects and concepts.

### **Forest Health and Watershed Pre-Planning Activities**

BTWC staff will conduct activities to gather existing information on critical needs related to forest health and management in the watershed. Working with key partners, like CFRI, BTWF, CSFS, USFS, Loveland Fire and Rescue Authority and others, BTWC staff will review existing plans, studies and data related to forest conditions, risks, and management actions. BTWC will also conduct community workshops to gain input on existing data and future opportunities, in tandem with concurrent Community Wildfire Protection Plan (CWPP) events being conducted in multiple Upper watershed communities. BTWC will also conduct site visits with private properties located in forested areas that contain potential for beneficial forest management actions to gain on-the-ground perspective. From this data and stakeholder input, BTWC will draft a list of potential forest restoration projects and concepts to help inform additional future planning work.

To support effective and scientifically based pre-planning activities, BTWC will consult with project partner BTWF to better understand its water quality dataset and analysis. BTWC will also hire a consultant with expertise in forest health issues and projects. This technical consultant will help build knowledge and capacity of BTWC staff and community members to undertake additional planning and forest restoration efforts. During the pre-planning activities and stakeholder input process, BTWC will identify opportunities to help reduce potential conflicts. Strategies will focus on providing additional education on forest health science and concepts to ensure group understanding of watershed issues, and seeking to identify multi-purpose projects that can meet a variety of land use needs.

The pre-planning activities conducted as part of the CWMP grant will complement the recently initiated Big Thompson River Envisioning Project, a stream management-planning project that is focused on better understanding consumptive and non-consumptive needs in the watershed. The Big Thompson River Envisioning Project is focused on further characterizing current and future constraints, identifying voluntary projects and opportunities for beneficial stream management,

and engaging in dialogue with diverse stakeholders. This will provide a good foundation to integrate additional pre-planning activities and inform future work.

### **Evaluation Criterion C— Implementation and Results**

#### ***Sub-criterion No. C1 Understanding of and Ability to Meet Program Requirements***

This criterion is addressed in the Project Description section under the Approach and Key Milestones and Implementation Schedule sub-sections.

#### ***Sub-criterion No. C2 Building on Relevant Federal, State, or Regional Planning Efforts***

##### **Colorado Water Plan and South Platte Basin Implementation Plan**

The Colorado Water Plan states a goal of promoting watershed health, supporting the development of watershed coalitions, watershed master plans and stream management plans that address the needs of a diverse set of local stakeholders. The South Platte Basin Implementation Plan aligns with the state plan and outlines additional basin goals, such as protecting and enhancing environmental attributes, proactively managing water quality for a diverse set of water users, promoting multi-purpose and benefit projects, and conducting outreach and educational programs to develop baseline public awareness and support. The proposed CWMP project will lead to additional development of the BTWC and related watershed management planning activities that help accomplish goals outlined in both the state and basin plans.

##### **Big Thompson River Master and Stream Management Plans**

The proposed project will build on previous master planning efforts completed in the Big Thompson, including the BTRRMP and the City of Loveland River Corridor Master Plan. The BTRRMP provides important post-flood assessments and characterization of the watershed and provides high-level restoration concepts. The City River Corridor Master Plan builds on the BTRRMP and further integrates additional infrastructure and community interests and potential project concepts. Finally, the recently initiated Big Thompson River Envisioning Project aims to characterize current and future conditions and long-term opportunities for the river corridor. The proposed CWMP project will use these plans as a foundation for additional planning and outreach. The proposed CWMP project will also help fill a critical gap in assessing and integrating upland watershed management issues, such as forest health, and evaluating related management actions and impacts on watershed health parameters.

##### **Forest Health Assessments and Plans**

The proposed CWMP project will build from current forest health assessments and plans for the Big Thompson Watershed. These include the Arapaho Roosevelt National Forest Plan, the state's COWRAP assessments, CFRI assessments of risk to water supply infrastructure in the watershed, and additional CWPP processes underway for the Loveland Fire and Rescue Authority jurisdiction in the Upper and City portions of the watershed. Utilizing these tools and data will ensure future planning efforts and projects have a technically-sound scientific foundation. BTWC

will build upon these analyses and help advance priority project concepts and locations that are feasible and supported by a diverse set of stakeholders.

**Evaluation Criterion D— Department of the Interior Priorities**

Utilizing best available science is a core value of the BTWC and its programs and associated projects, and a foundational component of each of its past and current planning efforts. This core value and guiding principles aligns well with the DOI priority to “Create a conservation stewardship legacy second only to Teddy Roosevelt” and as part of that priority to “Utilize science to identify best practices to manage land and water resources and adapt to changes in the environment”. BTWC planning efforts incorporate multi-disciplinary scientific assessments to characterize conditions and trends of watershed health parameters and prioritize project locations based on assessment results. BTWC is also committed to the ongoing learning necessary for the effective long-term management of ecosystems. In 2018 BTWC initiated a monitoring and adaptive management program to help promote evaluation and learning of project outcomes. In the proposed CWMP project, BTWC will continue this trajectory, incorporating scientific assessments, data, and monitoring to plan forest health projects that positively impact watershed health long-term.

**Environmental and Cultural Resources Compliance**

Environmental and cultural resources compliance is not required for work associated with the CWMP grant.

**Required Permits or Approvals**

No permits or approvals are required for work associated with the CWMP grant.

**Project Budget**

**Budget Proposal**

Table 3 - Summary of Federal and Non-Federal Funding Sources

SOURCE	AMOUNT
Costs to be reimbursed with requested Federal Funding	\$62,762.15
Costs to be paid by applicant	\$-
Value of third-party contributions	\$-
<b>TOTAL PROJECT COST</b>	<b>\$62,762.15</b>

## Budget Proposal Detail

Table 4 - Budget Proposal Detail

Budget Item Description	Computation		Quantity Type	Total Cost
	\$/Unit	Quantity		
<b>Salaries and Wages</b>				
BTWC Director	\$34.20	425	Hours	\$14,535.00
BTWC Project Coordinator	\$24.04	275	Hours	\$6,611.00
<b>Fringe</b>				
BTWC Director	\$8.55	425	Hours	\$3,633.75
BTWC Project Coordinator	\$6.97	275	Hours	\$1,916.75
<b>Travel</b>				
Local travel	\$0.58	2000	Mile	\$1,160.00
<b>Equipment</b>				
N/A				
<b>Supplies and Materials</b>				
Printed Materials	\$0.50	1300	Pages	\$650.00
Misc. Office	\$400.00	1	Misc. Items	\$400.00
Video Production	\$6,000.00	1	Lump Sum	\$6,000.00
GIS License	\$100.00	2	License	\$200.00
Events Food and Beverage	\$50.00	4	Event	\$200.00
<b>Contractual</b>				
Facilitator	\$150.00	75	Hours	\$11,250.00
Water Quality Consulting	\$50.00	40	Hours	\$2,000.00
Forest Health Consulting	\$85.00	100	Hours	\$8,500.00
<b>Other</b>				
N/A				
<b>TOTAL DIRECT COSTS</b>				<b>\$57,056.50</b>
<b>Indirect Costs</b>				
Type of rate	10%		Admin	\$5,705.65
<b>TOTAL ESTIMATED PROJECT COSTS</b>				<b>\$62,762.15</b>

## Budget Narrative

### Salaries and Wages

The BTWC currently employs two full-time staff members that include a Director and Project Coordinator. It is expected that this level of staffing will continue within the grant period. BTWC will use WaterSMART funding to fund BTWC staff to carry out key project tasks. The BTWC Director has an hourly rate of \$34.20 and the Project Coordinator rate is \$24.04. Staffing estimates for the CWMP project require

approximately 750 hours of BTWC staff time over the two-year project period including 475 hours for the Director and 275 hours for the Project Coordinator.

BTWC staff project tasks include:

- Participation and development (along with Board Members) of a strategic plan update for the BTWC; it is expected that staff will lead the majority of implementation tasks identified in the plan update;
- Meetings, work sessions and site visits with stakeholders, partners and consultants in the Big Thompson Watershed;
- Development of outreach and informational materials, such as brochures and handouts, updated website content and short educational videos;
- Pre-planning activities for a watershed plan focused on forest health outcomes in the Big Thompson Watershed; activities include compiling data, mapping and creating visualization, identifying gaps and planning needs, outlining and gaining stakeholder input on potential projects.

### **Fringe Benefits**

Fringe benefits are based on hours for each BTWC staff member and include benefits and required taxes paid for each position. Fringe rates have been computed at \$8.55 per hour for the Director and \$6.97 per hour for the Project Coordinator and are applied to the 475 and 275 hour estimates for each position.

### **Travel**

Travel within the watershed and Front Range region is estimated at 2000 miles at \$0.58 per mile. Travel estimates include site visits, stakeholder meetings and regional meetings with partners.

### **Materials and Supplies**

Requested materials and supplies are for office use to produce meeting and outreach materials to support the organizational development, outreach, and pre-planning tasks. This includes creating copies of handouts and materials for site visits and stakeholder meetings, purchasing annual ESRI ArcGIS nonprofit license for staff use, development and production of educational videos for key programs, and stakeholder meeting refreshments.

### **Contractual**

Consultants will be hired to assist with facilitation and technical assessments/pre-planning activities as needed. BTWC has conducted preliminary price analysis and found average fees for facilitation consultants in the area are \$150 per hour. The estimate would provide 75 hours of facilitation work focused on the development of the strategic plan. BTWC has researched water quality support cost estimates from project partner Big Thompson Watershed Forum, who maintains a fee for service pricing structure and provides expertise focused on the Big Thompson Watershed. Rates for water quality support average \$50 per hour and the project estimate would provide 40 hours of support for pre-planning activities. BTWC has also found in its initial cost research that forest health consultants in the area have an average

rate of \$85 per hour. The project estimate would provide 100 hours of support for pre-planning activities, including site visits, to help build additional expertise and capacity of BTWC staff in forest health issues.

**Indirect**

The BTWC administrative fee rate is 10% for the CWMP funding opportunity. Indirect costs include staff time and materials necessary to complete grant tracking and reporting.

**Total**

Total cost for the two-year funding cycle is \$62,762.15 as shown in Tables 3 and 4. Requested Bureau of Reclamation funding is \$62,762.15

# Attachments

## Official Resolution



PO Box 1923  
Loveland, CO 80539  
www.bigthompson.co

### Resolution of the Board of Directors October 2019

#### **Resolution of the Big Thompson Watershed Coalition (BTWC):**

#### **Approval of applications to new grant funding opportunity called the WaterSMART Collaborative Watershed Management Program**

This Resolution, adopted by the BTWC Board of Director's quorum approval (by email vote), on November 8, 2019. This Resolution supports BTWC's application for general watershed organization capacity grant funding from the WaterSMART Collaborative Watershed Management Program. As the governing body of this organization, should BTWC be awarded this funding source: 1) BTWC is authorized to commit to the financial and legal obligations associated with receipt of a financial assistance award under this contract, 2) BTWC will provide the amount of funding and/or in-kind contributions specified in the funding plan (grant budget), and 3) BTWC will work with Reclamation to meet established deadlines for entering into a grant or cooperative agreement.

A signature of this Board resolution by Board President, Larry Rogstad, acknowledges that this resolution has gone to vote and has received quorum approval by the BTWC Board of Directors.

Resolution adopted by the BTWC Board of Directors November 8, 2019. Resolution notice approved for submission with WaterSMART grant application.

A handwritten signature in black ink, appearing to read "Larry Rogstad", is written over a light blue horizontal line.

Signed - Larry Rogstad, BTWC Board of Directors President

## Letters of Support

Letters of support are provided from the following BTWC partners:

- The Nature Conservancy
- John Whiteside – Landowner and Southside Ditch Member
- Rocky Mountain Flycasters – Trout Unlimited Chapter
- City of Loveland Parks and Recreation Department
- City of Loveland Stormwater Department
- Big Thompson Watershed Forum
- Colorado Department of Local Affairs
- Hal Braiden – BTWC Board Director & Buckhorn Area Landowner
- Larimer County Office of Emergency Management



November 7, 2019

Bureau of Reclamation  
Water Resources and Planning Division  
Attn: Ms. Alisha James  
Mail Code: 84-51000, P.O. Box 25007  
Denver, CO 80225

RE: BTWC 2019 WaterSMART Cooperative Watershed Management Program Phase 1 Grant Application for Funding

The Nature Conservancy supports the Big Thompson Watershed Coalition (BTWC) in its application for the Department of Interior, Bureau of Reclamation 2019 WaterSMART Cooperative Watershed Management Program Phase 1 Grant Application.

The BTWC has been a valuable partner for The Nature Conservancy in advancing conservation initiatives in the Big Thompson watershed. Through their unique ability to bring together diverse stakeholders, the BTWC has successfully led a variety of collaborative watershed improvement projects, including: watershed health and resilience planning; construction of river restoration improvements; forest health improvement projects; and community involvement opportunities in watershed stewardship through project planning/design, restoration workdays, monitoring, and organizational board leadership. Through this work, the BTWC has developed a strong track record of delivering successful projects that are outcome-oriented, science-based, and collaborative driven.

Although BTWC and its partners have successfully improved over 10 miles of the river, there is still critical work to do to ensure we continue on the trajectory for long-term watershed health, function, and resilience to disasters and other threats. This grant provides an opportunity for the BTWC to continue its efforts to build and hone a diverse watershed community, complete additional multi-objective watershed planning, and design additional watershed management projects to benefit its many partners and community members. The BTWC is in a unique position to facilitate this work, having established relationships with countless land and business owners, non-profit organizations, as well as local, state, and federal agencies. These diverse relationships have given the BTWC an understanding of how to balance the multitude of different interests in the Big Thompson watershed and the diverse suite of issues that need to be addressed in order to improve and maintain the watershed over the long-term.

Funding through the Cooperative Watershed Management Program would allow the BTWC to build on this success, strengthen the foundation of this important organization, and continue to improve the health of the Big Thompson watershed. The Nature Conservancy values the unique role the BTWC plays in meeting the needs of the Big Thompson watershed and we are confident in their ability to fulfill the expectations of this grant.

The Nature Conservancy respectfully requests the approval of this grant proposal to support the BTWC operations. If you have any questions, please contact me at the email address or phone number provided below.

Sincerely,



Rob Addington  
Forest and Fire Program Director  
The Nature Conservancy – Colorado Chapter  
Email: [raddington@tnc.org](mailto:raddington@tnc.org); Phone: 970-449-2049

11/8/2019

Bureau of Reclamation  
Water Resources and Planning  
Division Attn: Ms. Alisha James  
Mail Code: 84-51000  
P.O. Box 25007

Denver, CO 80225

RE: BTWC 2019 WaterSMART Cooperative Watershed Management Program Phase 1 Grant  
Application for Funding

John and Jeri Whiteside, as private landowners, water rights owners, and ditch/diversion board members, support the Big Thompson Watershed Coalition (BTWC) in its application for Department of Interior, Bureau of Reclamation 2019 WaterSMART Cooperative Watershed Management Program Phase 1 Grant Application.

Over the past four years, the BTWC has been a key partner for us in the ongoing restoration and recovery of the Big Thompson Watershed following the 2013 national disaster flood in the region. BTWC continues to play a key role in creating a diverse stakeholder group to work through conflicts and facilitate solutions to complex water and land use issues.

I would like to give a personal description of what the coalition did for us. In our case, the river jumped its existing river channel, cut into our property, and created a new river channel. This change in river channel left about 8 acres of land completely destroyed. My best description would be it looked like a gravel pit. The BTWC came to our community with a proposal to work together by pulling resources and ideas to reclaim the disastrous effects of this flood. The BTWC showed us the possibilities of bringing together experts that helped create better water quality, increased habitat for fish and wildlife, as well as general improvements for river health and ecology. We would have regular meetings to keep us informed and up-to-date, allow us to ask questions, and voice concerns. Everyone that the coalition hired to work on our property was very respectful and sensitive to our property and livestock that was present during the renovation. I am convinced the design they developed created a sustainable river ecosystem that will be resilient to future disasters. The restoration on our property has turned out spectacular. We, as individuals, would not have had the resources to accomplish what they have done for our community. A large portion of the work was all done on our property but we feel it has benefited many in the community by resorting what the flood devastated. As a local landowner, I have witnessed the wildlife returning and reproducing in the new habitat. I have worked with the BTWC for several years and I am continually impressed with the professionalism and dedication they have had to our community.

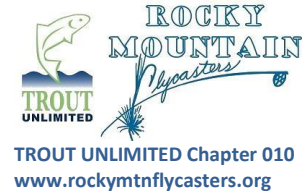
Although BTWC and its partners have successfully improved over 10 miles of the river, there is still critical work to do to ensure we continue on the trajectory for long-term watershed health, function, and resilience to disasters and other threats. This grant provides an opportunity for the BTWC to continue its efforts to build and hone a diverse watershed community, complete additional multi-objective watershed planning, and design additional watershed management projects to benefit its many partners and community members. The BTWC is in a unique position to facilitate this work, having established relationships with countless land and business owners, non-profit organizations, as well as local, state, and federal agencies. These diverse relationships have given the BTWC an understanding of how to

balance the multitude of different interests in the Big Thompson watershed and the diverse suite of issues that need to be addressed in order to improve and maintain the watershed over the long-term. The BTWC has a proven track record of delivering successful projects that have improved watershed resiliency with support of private property owners and other stakeholders. This funding would allow the BTWC to build on this success, strengthen the foundation of this important organization, and continue to improve the health of the Big Thompson watershed while involving into new geographic locations and communities. The Whiteside family values the unique role the BTWC plays in meeting the needs of the Big Thompson watershed and we are confident in their ability to fulfil the expectations of this grant.

John and Jeri Whiteside respectfully request the approval of this grant proposal to support the BTWC operations. If you have any questions, please contact John Whiteside.

Sincerely,

John and Jeri Whiteside  
Landowner  
970-663-1457, [john@whitesideboots.com](mailto:john@whitesideboots.com)



**TRUSTEES**

**President**  
Mickey McGuire

**Vice-President**  
Colin Glover

**Treasurer**  
Ryan Hogan

**Secretary**  
Frank Bub

**Past President**  
Wil Huett

**At Large:**  
Ruth Ketola

**At Large:**  
Ron Dickson

November 8, 2019

Bureau of Reclamation  
Water Resources and Planning Division  
Attn: Ms. Alisha James  
Mail Code: 84-51000  
P.O. Box 25007  
Denver, CO 80225

RE: BTWC 2019 WaterSMART Cooperative Watershed Management Program Phase 1 Grant Application for Funding

**LEADERSHIP COUNCIL**

**Community Outreach**  
Wil Huett

**Conservation**  
Ron Dickson

**Fishing Trips**  
Mark Miller

**Membership**  
Rick Musslemann

**Newsletter**  
Bob Green

**Raffles**  
Domingo Rodriguez

**Webmaster**  
Paul Wehr

**Youth Outreach**  
Bill Gedge

**Youth Water Festivals**  
Jerry Pelis

**Women's Initiative**  
Ruth Ketola

**Veterans Program**  
Dave Morse

The Rocky Mountain Flycasters Chapter of Trout Unlimited (RMF) supports the Big Thompson Watershed Coalition (BTWC) in its application for Department of Interior, Bureau of Reclamation 2019 WaterSMART Cooperative Watershed Management Program Phase 1 Grant Application.

RMF is located in northern Colorado and has a membership of a 950+ members. As a chapter of Trout Unlimited, a national conservation organization whose mission is to “Conserve, protect, and restore North America’s coldwater fisheries and their watersheds”, RMF works on a local level with dedicated volunteers who work tirelessly with partners such as the BTWC to restore and reconnect watersheds of the Cache Le Poudre and Big Thompson rivers. We have a long and successful track record of completing meaningful projects and educating our youth and the public at large. Over the past four years, the BTWC has been a key partner for RMF in the ongoing restoration and recovery of the Big Thompson Watershed following the 2013 national disaster flood in the region. BTWC continues to play a key role in creating a diverse stakeholder group to work through conflicts and facilitate solutions to complex water and land use issues. As a result, BTWC has successfully led a variety of collaborative watershed improvement projects, including: watershed health and resilience planning; construction of river restoration improvements; forest health improvement projects; and community involvement opportunities in watershed stewardship through project planning/design, restoration workdays, monitoring, and organizational board leadership.

RMF is a strong proponent of and helped form the BTWC following the events of 2013. One of our Chapter members has sat on the Board since its inception and RMF will continue to be a supporter of BTWC for the foreseeable future.

While the mission of RMF and the BTWC overlap to some extent, a lot of collaborative work has been accomplished. Future collaborative work in areas such as river restoration, flood recovery and mitigation, increased habitat for fish and other wildlife, trail maintenance, waterway clean up and other projects to ensure watershed health will continue. Our collaboration is a two way street; RMF supplies volunteer labor and financial resources when needed and acts as a conduit for companies to provide labor and other resources as well. BTWC helps identify meaningful projects that require as well as obtaining significant grant monies to ensure the health of the watershed will flourish.

Although BTWC and its partners have successfully improved over 10 miles of the river, there is still critical work to do to ensure we continue on the trajectory for long-term watershed health, function, and resilience to disasters and other threats. This grant provides an opportunity for the BTWC to continue its efforts to build and hone a diverse watershed community, complete additional multi-objective watershed planning, and design additional watershed management projects to benefit its many partners and community members. The BTWC is in a unique position to facilitate this work, having established relationships with numerous land and business owners, non-profit



**TRUSTEES**

**President**  
Mickey McGuire

**Vice-President**  
Colin Glover

**Treasurer**  
Ryan Hogan

**Secretary**  
Frank Bub

**Past President**  
Wil Huett

**At Large:**  
Ruth Ketola

**At Large:**  
Ron Dickson

**LEADERSHIP  
COUNCIL**  
**Community Outreach**  
Wil Huett

**Conservation**  
Ron Dickson

**Fishing Trips**  
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Paul Wehr

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Jerry Pelis

**Women's Initiative**  
Ruth Ketola

**Veterans Program**  
Dave Morse

organizations such as RMF, as well as local, state, and federal agencies. These diverse relationships have given the BTWC an understanding of how to balance the multitude of different interests in the Big Thompson watershed and the diverse suite of issues that need to be addressed in order to improve and maintain the watershed over the long-term. The BTWC has a proven track record of delivering successful projects that have improved watershed resiliency with support of private property owners and other stakeholders. This funding would allow the BTWC to build on this success, strengthen the foundation of this important organization, and continue to improve the health of the Big Thompson watershed while involving into new geographic locations and communities. The members of the Rocky Mountain Flycasters value the unique role the BTWC plays in meeting the needs of the Big Thompson watershed and we are confident in their ability to fulfill the expectations of this grant.

The Rocky Mountain Flycasters Chapter of Trout Unlimited respectfully requests the approval of this grant proposal to support the BTWC operations. If you have any questions, my contact information is below.

Sincerely,



Mickey McGuire, President  
Rocky Mountain Flycasters  
[president@rockymtnflycasters.org](mailto:president@rockymtnflycasters.org)

**TROUT UNLIMITED MISSION**

To conserve, protect and restore North America's coldwater fisheries and their watersheds.  
PO Box 1694, Ft Collins, CO 800522-1694





## PARKS AND RECREATION DEPARTMENT

Civic Center • 500 East Third Street, Suite 200 • Loveland, Colorado 80537  
(970) 962-2727 • FAX (970) 962-2903 • TDD (970) 962-2620  
[www.CityofLoveland.org](http://www.CityofLoveland.org)

November 8, 2019

Bureau of Reclamation  
Water Resources and Planning Division  
Attn: Ms. Alisha James  
Mail Code: 84-51000  
P.O. Box 25007  
Denver, CO 80225

RE: BTWC 2019 WaterSMART Cooperative Watershed Management Program Phase 1 Grant Application for Funding

The City of Loveland Open Lands and Trails Division of Parks and Recreation supports the Big Thompson Watershed Coalition (BTWC) in its application for Department of Interior, Bureau of Reclamation 2019 WaterSMART Cooperative Watershed Management Program Phase 1 Grant Application.

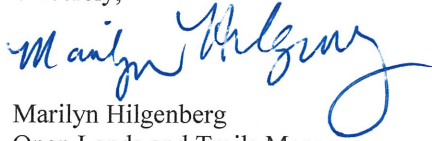
Over the past four years, the BTWC has been a key partner for our Parks and Recreation Department in the ongoing restoration and recovery of the Big Thompson Watershed following the 2013 national disaster flood in the region. BTWC continues to play a key role in creating a diverse stakeholder group to work through conflicts and facilitate solutions to complex water and land use issues. As a result, BTWC has successfully led a variety of collaborative watershed improvement projects, including: watershed health and resilience planning; construction of river restoration improvements; forest health improvement projects; and community involvement opportunities in watershed stewardship through project planning/design, restoration workdays, monitoring, and organizational board leadership.

The BTWC was the primary funding agency and manager of two large restoration projects (REACH 28 and REACH 30) along the Big Thompson this past year. The BTWC role as a manager of the projects was key in these improvements being completed. The cooperation between the private landowners, the City and the BTWC was outstanding. These were not easy projects and the BTWC was the catalyst that held them together through many challenges.

Although BTWC and its partners have successfully improved over 10 miles of the river, there is still critical work to do to ensure we continue on the trajectory for long-term watershed health, function, and resilience to disasters and other threats. This grant provides an opportunity for the BTWC to continue its efforts to build and hone a diverse watershed community complete additional multi-objective watershed planning, and design additional watershed management projects to benefit its many partners and community members. The BTWC is in a unique position to facilitate this work, having established relationships with countless land and business owners, non-profit organizations, as well as local, state, and federal agencies. These diverse relationships have given the BTWC an understanding of how to balance the multitude of different interests in the Big Thompson watershed and the diverse suite of issues that need to be addressed in order to improve and maintain the watershed over the long-term. The BTWC has a proven track record of delivering successful projects that have improved watershed resiliency with support of private property owners and other stakeholders. This funding would allow the BTWC to build on this success, strengthen the foundation of this important organization, and continue to improve the health of the Big Thompson watershed while involving into new geographic locations and communities. The Parks and Recreation Department of the City of Loveland values the unique role the BTWC plays in meeting the needs of the Big Thompson watershed and we are confident in their ability to fulfil the expectations of this grant.

The City of Loveland Parks and Recreation Department respectfully requests the approval of this grant proposal to support the BTWC operations. If you have any questions, please contact Marilyn Hilgenberg at [Marilyn.Hilgenberg@cityofloveland.org](mailto:Marilyn.Hilgenberg@cityofloveland.org).

Sincerely,



Marilyn Hilgenberg  
Open Lands and Trails Manager  
City of Loveland  
970-962-2443

Cc: Elizabeth Kayl, Parks and Recreation Director, City of Loveland



**CITY OF LOVELAND**  
**PUBLIC WORKS**  
**STORMWATER**

2525 W. First Street, Loveland, CO 80537  
(970) 962-2627, FAX (970) 962-2908, TDD (970) 962-2620  
[www.cityofloveland.org](http://www.cityofloveland.org)

November 8, 2019

U.S. Bureau of Reclamation  
Water Resources and Planning Division  
Attn: Ms. Alisha James  
Mail Code: 84-51000  
P.O. Box 25007  
Denver, CO 80225

RE: BTWC 2019 WaterSMART Cooperative Watershed Management Program Phase 1 Grant  
Application for Funding

Dear Ms. James:

On behalf of the City of Loveland, I wish to convey our support of the Big Thompson Watershed Coalition's (BTWC) grant application for the Bureau of Reclamation WaterSMART Cooperative Watershed Program Phase 1 Grant.

The Big Thompson watershed is illustrative of conditions throughout the Front Range of Colorado, with river flows and services used by multiple sectors including: municipal water supply, agricultural production, habitat for fish and other wildlife, and recreational and tourism opportunities for residents and visitors that serve as a key driver in the local economy. Given these factors, the Big Thompson Watershed is an ideal place to invest in long-term watershed management.

Since the BTWC's creation, the City has had the pleasure of witnessing first-hand the Coalition's many positive impacts on the Big Thompson River corridor and watershed. The BTWC has successfully collaborated with public agencies, other non-profit organizations, and private landowners to improve resiliency and watershed health by finding solutions to very complex issues. They have led a variety of collaborative watershed improvement projects, including: watershed health and resilience planning, construction of river restoration improvements, forest health projects, and providing community involvement opportunities in watershed stewardship through project planning, restoration workdays, volunteering efforts, monitoring, and organizational board leadership. Much of the work accomplished to date would not have occurred without the Coalition and their qualified staff. Yet, there is significant work remaining to ensure that both the river corridor and watershed are on trajectory for long-term health and function. Therefore, we believe it is critical for the Coalition to move forward and to continue with its mission.

It is our understanding that the Bureau of Reclamation's WaterSMART Cooperative Watershed Program Phase 1 Grant provides an opportunity for the BTWC to build upon past successes, strengthen its foundation, and take important steps towards addressing long-term watershed resilience, work that began with the 2013 flood recovery process. The BTWC is in the unique position to lead and facilitate this work. They have successfully balanced a multitude of interests, consistently worked towards achieving multiple objectives, and have a proven track record of delivering millions of dollars worth of successful projects with the support of private property owners and other



stakeholders. This work has improved the Big Thompson River's resilience and ecological conditions, reduced flood hazards, improved water quality, brought a diverse group of people together for a common cause, and grown public interest and excitement in the river corridor and watershed. The City of Loveland has directly benefited from their efforts. The grant funding would allow the BTWC to continue to build upon a successful foundation that is improving the health of the Big Thompson watershed.

The City of Loveland values the unique role the BTWC plays in meeting the needs of the Big Thompson watershed and is confident in their ability to fulfil the expectations of this grant. Therefore, The City of Loveland fully supports the BTWC's application and respectfully requests your approval of the grant funding towards their operations.

If you have any questions, please feel free to contact me at (970) 962-2774 or by email at [Chris.Carlson@cityofloveland.org](mailto:Chris.Carlson@cityofloveland.org).

Sincerely,

A handwritten signature in black ink that reads "Chris Carlson". The signature is written in a cursive style with a light grey rectangular background behind it.

Chris Carlson, P.E., CFM  
Stormwater Capital Improvement Program Manager / River Team Lead  
Public Works Department  
City of Loveland



# BIG THOMPSON WATERSHED FORUM

THE FUTURE OF WATER QUALITY IS IN OUR HANDS

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11/1/2019

Bureau of Reclamation  
Water Resources and Planning Division  
Attn: Ms. Alisha James  
Mail Code: 84-51000  
P.O. Box 25007  
Denver, CO 80225

RE: BTWC 2019 WaterSMART Cooperative Watershed Management Program Phase 1 Grant Application for Funding

The Big Thompson Watershed Forum (BTWF) supports the Big Thompson Watershed Coalition (BTWC) in its application for Department of Interior, Bureau of Reclamation 2019 WaterSMART Cooperative Watershed Management Program Phase 1 Grant Application.

Over the past four years, the BTWC has been a central partner for the BTWF in the ongoing restoration and recovery of the Big Thompson Watershed following the 2013 national disaster flood in the region. BTWC continues to play a key role in creating a diverse stakeholder group to work through conflicts and facilitate solutions to complex water and land use issues. As a result, BTWC has successfully led a variety of collaborative watershed improvement projects, including: watershed health and resilience planning; construction of river restoration improvements; forest health improvement projects; and community involvement opportunities in watershed stewardship through project planning/design, restoration workdays, monitoring, and organizational board leadership.

Our mission at the BTWF is to “support the protection and improvement of water quality in the Big Thompson Watershed through collaborative monitoring, assessment, and education/outreach projects.” We are more than happy to assist partner organizations in identifying water quality issues through monitoring. We also hope to document their success. The BTWC has an outstanding record of accomplishing on the ground projects that benefit the Big Thompson River Watershed and we will continue to support their work, quantitatively document their successes, and improve water quality projects through data driven analysis in the future.

Although BTWC and its partners have successfully improved over 10 miles of the river, there is still critical work to do to ensure we continue on the trajectory for long-term watershed health, function, and resilience to disasters and other threats. This grant provides an opportunity for the BTWC to continue its efforts to build and hone a diverse watershed community, complete additional multi-objective watershed planning, and design additional watershed management projects to benefit its many partners and community members. The BTWC is in a unique position to facilitate this work, having established relationships with countless land and business owners, non-profit organizations, as well as local, state, and federal agencies. These diverse relationships have given the BTWC an understanding of how to balance the multitude of different interests in the Big Thompson watershed and the diverse suite of issues that need to be addressed in order to improve and maintain the watershed over the long-term. The BTWC has a proven track record of delivering successful projects that have improved watershed resiliency with support of private property owners and other stakeholders. This funding would allow the BTWC to build on this success, strengthen the foundation of this important organization, and continue to improve the health of the Big Thompson watershed while involving into new geographic locations and communities.

The BTWF values the unique role the BTWC plays in meeting the needs of the Big Thompson watershed and we are confident in their ability to fulfil the expectations of this grant.

The BTWF respectfully requests the approval of this grant proposal to support the BTWC operations. If you have any questions, please feel free to contact me.

Sincerely,

Dr. Andrew Fayram  
Monitoring Program Manager  
Big Thompson Watershed Forum  
970-613-5065  
afayram@btwatershed.org

Bureau of Reclamation  
Water Resources and Planning Division  
Attn: Ms. Alisha James  
Mail Code: 84-51000  
P.O. Box 25007  
Denver, CO 80225

11/6/2019

RE: BTWC 2019 WaterSMART Cooperative Watershed Management Program Phase 1 Grant  
Application for Funding

I, Hal Braden, Director of the Big Thompson Watershed Coalition and landowner of the upper reach Buckhorn Creek, support the Big Thompson Watershed Coalition (BTWC) in its application for Department of Interior, Bureau of Reclamation 2019 WaterSMART Cooperative Watershed Management Program Phase 1 Grant Application.

Over the past four years, the BTWC has been a key partner for Upper Reach of the Buckhorn Creek in the ongoing restoration and recovery of the Big Thompson Watershed following the 2013 national disaster flood in the region. BTWC continues to play a key role in creating a diverse stakeholder group to work through conflicts and facilitate solutions to complex water and land use issues. As a result, BTWC has successfully led a variety of collaborative watershed improvement projects, including: watershed health and resilience planning; construction of river restoration improvements; forest health improvement projects; and community involvement opportunities in watershed stewardship through project planning/design, restoration workdays, monitoring, and organizational board leadership.

The BTWC has and continues to provide an organization that has developed expertise over the period from its inception after the flood of 2013 to the present day. Expertise developed during this period continues to provide a knowledge base necessary for remediation of damage in the Buckhorn Canyon caused by the 2013 event and to develop programs which eventually result in a more resilient and better quality watercourse.

Buckhorn Creek services a sub-watershed in the greater Big Thompson watershed. The sub-watershed covers over one hundred square miles in the creek's thirty-mile length from the continental divide to its eventual connection to the Big Thompson river at the West boundary of Loveland. It is just a creek, however, it caused over \$27,000,000 of damage to County Road 27 and unreported monetary damage to numerous private creek and municipal crossings, National Forest infrastructure, homes, and outbuildings.

- Issues noted by community members that may warrant future investigation and enhancement projects with BTWC include:
- Improvement of potable water wells in the floodplain to prevent back flow contamination in wells and aquifers.

- Improvement of river crossing infrastructure on private and public lands to improve flood and debris conveyance, enhance fish passage and habitat, and improve safe landowner access across the river during flood disasters.
- Identification and addressment of water quality impacts of rural waste management systems including outdated out-house facilities, septic systems, and other wastewater release practices that return potentially low water quality flows into Buckhorn Creek.
- And homeowner outreach to improve waste and debris management so inappropriate materials do not make their way into the watershed and cause negative impacts to infrastructure, obstruction of flow, and impact to water quality in the Creek.

These issues exist throughout the Big Thompson watershed and should be addressed before history repeats itself, again, climate change issues notwithstanding.

Although BTWC and its partners have successfully improved over 10 miles of the river, there is still critical work to do to ensure we continue on the trajectory for long-term watershed health, function, and resilience to disasters and other threats. This grant provides an opportunity for the BTWC to continue its efforts to build and hone a diverse watershed community, complete additional multi-objective watershed planning, and design additional watershed management projects to benefit its many partners and community members. The BTWC is in a unique position to facilitate this work, having established relationships with countless land and business owners, non-profit organizations, as well as local, state, and federal agencies. These diverse relationships have given the BTWC an understanding of how to balance the multitude of different interests in the Big Thompson watershed and the diverse suite of issues that need to be addressed in order to improve and maintain the watershed over the long-term. The BTWC has a proven track record of delivering successful projects that have improved watershed resiliency with support of private property owners and other stakeholders. This funding would allow the BTWC to build on this success, strengthen the foundation of this important organization, and continue to improve the health of the Big Thompson watershed while involving into new geographic locations and communities. The Buckhorn Creek community values the unique role the BTWC plays in meeting the needs of the Big Thompson watershed and we are confident in their ability to fulfil the expectations of this grant.

Buckhorn Creek community respectfully requests the approval of this grant proposal to support the BTWC operations. If you have any questions, please feel free to contact Hal Braden, e-mail [hbraden@netzero.com](mailto:hbraden@netzero.com).

Sincerely,

Hal Braden

Director  
Big Thompson Watershed Coalition  
(970)484-3154  
[hbraden@netzero.com](mailto:hbraden@netzero.com)



November 4, 2019

Bureau of Reclamation  
Water Resources and Planning Division  
Attn: Ms. Alisha James  
Mail Code: 84-51000  
P.O. Box 25007  
Denver, CO 80225

**RE: WaterSMART Cooperative Watershed Management Program Phase 1 Grant Application**

Dear Ms. James:

The Colorado Department of Local Affairs (DOLA) Community Development Block Grant - Disaster Recovery (CDBG-DR) Program strongly supports the Big Thompson Watershed Coalition (BTWC) in its application for Department of Interior, Bureau of Reclamation 2019 WaterSMART Cooperative Watershed Management Program Phase 1 Grant funding.

Since our first award to this organization in December 2015, the BTWC has been a key partner with DOLA following the 2013 federally-declared disaster in Colorado. BTWC has led flood recovery and restoration work in the Big Thompson River watershed effectively since their formation and continue to play a key role in creating a diverse stakeholder groups willing to work through issues and facilitate solutions to complex water and land use issues.

The Department of Local Affairs has provided over \$8.3 Million in federal disaster recovery funds in nine contracts to the Big Thompson Watershed Coalition across three distinct categories: Resilient Planning, Watershed Capacity (staffing) and Watershed Implementation. The financial management of these funds by BTWC has been impeccable and the organization has successfully closed every one of those grants with DOLA. We intend to continue funding BTWC in one additional small planning project in 2020 that will be in partnership with another State of Colorado agency - the Colorado Water Conservation Board. Disaster Recovery funds however, are time-limited and this will be the final BTWC project funded through CDBG-DR and DOLA.

This Coalition has successfully led collaborative watershed improvement projects including: watershed health and resilience planning; construction of river restoration improvements; forest health improvement projects; and community involvement opportunities in watershed stewardship through project planning/design, restoration workdays, monitoring, and organizational board leadership. This grant provides an opportunity for the BTWC to continue



its efforts to build a diverse watershed community, complete additional multi-objective watershed planning, and design additional watershed management projects to benefit its many partners and community members. The BTWC has a proven track record of delivering successful projects that have improved watershed resiliency with support of private property owners and other stakeholders.

The Department of Local Affairs values the unique role the BTWC plays in meeting the needs of the Big Thompson River watershed and I am confident in their ability to successfully fulfill every expectation of this grant.

Cordially,



Tim Katers, AICP, Manager  
CDBG-DR Resilience Planning and Watershed Resilience Pilot Programs  
Colorado Department of Local Affairs  
(303) 864-7888  
tim.katers@state.co.us

November 11, 2019

Bureau of Reclamation  
Water Resources and Planning Division  
Attn: Ms. Alisha James  
Mail Code: 84-51000  
P.O. Box 25007  
Denver, CO 80225

RE: BTWC 2019 WaterSMART Cooperative Watershed Management Program Phase 1 Grant Application for Funding

The Larimer County Office of Emergency Management supports the Big Thompson Watershed Coalition (BTWC) in its application for Department of Interior, Bureau of Reclamation 2019 WaterSMART Cooperative Watershed Management Program Phase 1 Grant Application.

Over the past four years, the BTWC has been a key partner for the Larimer County Office of Emergency Management in the ongoing restoration and recovery of the Big Thompson Watershed following the 2013 national disaster flood in the region. BTWC continues to play a key role in creating a diverse stakeholder group to work through conflicts and facilitate solutions to complex water and land use issues. As a result, BTWC has successfully led a variety of collaborative watershed improvement projects, including: watershed health and resilience planning; construction of river restoration improvements; forest health improvement projects; and community involvement opportunities in watershed stewardship through project planning/design, restoration workdays, monitoring, and organizational board leadership.

Larimer OEM is involved in all phases of the disaster cycle including preparedness and hazard mitigation planning, emergency response, and recovery efforts following a large-scale adverse impact to our County. However, we are highly dependent upon the efforts of partners like the BTWC to ensure that we can continue to meet the needs of the community in all phases of the disaster management cycle.

The work that the BTWC engages in, ensures the resilience and vitality not only of our watersheds and forests far into the future, but their work also contributes to the safety and well-being of communities in their watershed. The watershed restoration and forest health efforts ensure decreased risk of flooding and fire, which means the results of their work far exceed an environmental benefit.

Although BTWC and its partners have successfully improved over 10 miles of the river, there is still critical work to do to ensure we continue on the trajectory for long-term watershed health, function, and resilience to





disasters and other threats. This grant provides an opportunity for the BTWC to continue its efforts to build and hone a diverse watershed community, complete additional multi-objective watershed planning, and design additional watershed management projects to benefit its many partners and community members. The BTWC is in a unique position to facilitate this work, having established relationships with countless land and business owners, non-profit organizations, as well as local, state, and federal agencies. These diverse relationships have given the BTWC an understanding of how to balance the multitude of different interests in the Big Thompson watershed and the diverse suite of issues that need to be addressed in order to improve and maintain the watershed over the long-term. The BTWC has a proven track record of delivering successful projects that have improved watershed resiliency with support of private property owners and other stakeholders. This funding would allow the BTWC to build on this success, strengthen the foundation of this important organization, and continue to improve the health of the Big Thompson watershed while involving into new geographic locations and communities. The Larimer County Office of Emergency Management values the unique role the BTWC plays in meeting the needs of the Big Thompson watershed and we are confident in their ability to fulfil the expectations of this grant.

The Larimer County Office of Emergency Management respectfully requests the approval of this grant proposal to support the BTWC operations. If you have any questions, please contact Shayle Sabo, Emergency Management Coordinator either via email at [sabosn@co.larimer.co.us](mailto:sabosn@co.larimer.co.us) or via phone at (970) 498-7148.

Sincerely,



**Shayle Sabo**

Emergency Management Coordinator  
Larimer Connects Program Manager  
Larimer County Office of Emergency Management  
[sabosn@co.larimer.co.us](mailto:sabosn@co.larimer.co.us)  
(970) 498-7148

# Areas Affected by the BTWC CWMP Project

This map identifies lakes and streams of the Big Thompson watershed in Larimer County, Colorado. No data could be sourced for Weld County, Colorado waterways (eastern edge of the watershed).

