COLORADO WATER PLAN

PARTNER ACTIONS

COLORADO

Colorado Water Conservation Board

Department of Natural Resources

2023

PARTNER ACTIONS

The most important aspect of the Colorado Water Plan is the vision it provides for how Coloradans will meet water challenges and the actions that stakeholders and CWCB along with other state agencies can take in the near term to help the vision become a reality. **The State cannot achieve this vision alone. It takes all of us.**

We build water resilience by bold action, one project and one discussion at a time. Working collaboratively across groups is critical to address water challenges. Federal, state, and local governments; Tribal Nations; businesses; non-governmental organizations; and residents all have a role. While the Colorado Water Conservation Board (CWCB) develops the Colorado Water Plan (Water Plan), promotes integrated planning, and fosters connections between groups, CWCB's role as a policy agency focuses on funding projects, convening discussions, and developing support tools (like research, models, plans, and frameworks). The CWCB relies on partners to help implement the Water Plan.

Partner actions are examples of opportunities for individuals and communities to help achieve the vision described in the Water Plan. They are supported by agency actions that CWCB and collaborating agencies will implement to advance the Water Plan. Examples of project-level partner actions are described in this document, and they are organized by topics that align with CWCB's Water Plan grant program. The funding categories are defined in legislation and are listed in the table below. While not all projects that advance the Water Plan rely on grant funding, providing funding assistance is a key tool CWCB uses to support partners across the state as they implement projects and strategies that align with the Water Plan's vision and address local challenges.

WATER PLAN GRANT CATEGORY	PARTNER ACTION CATEGORY
Water Storage and Supply Projects **Water Sharing Agreements**	***Thoughtful Storage*** *Storing water and creating reliable supplies for farms and communities and multi-purpose benefits for the environment and recreation* ***Meeting Future Water Need*** *Providing supply, improving water management, and lowering risk for all sectors*
Conservation and Land Use Projects	***Wise Water Use*** *Using water more efficiently and creating multi-benefit projects* ***Healthy Lands*** *Creating landscapes that will be healthy and productive in a warmer and drier future*
Engagement and Innovation Activities	***Effective Engagement*** *Fostering information sharing, education, and innovation at the state and local level*
Agricultural Projects	***Robust Agriculture*** *Supporting all aspects of Robust Agriculture partner actions*
Watershed Health and Recreation Projects	***Thriving Watersheds*** *Supporting all aspects of Thriving Watersheds actions*

1HE COLORADO VISION

The Colorado Vision, outlined in Chapter 6 of the Water Plan, is captured across the visions of the four action areas—Vibrant Communities, Robust Agriculture, Thriving Watersheds, and Resilient Planning. Taken together, the action area visions provide a roadmap for achieving greater water resilience as we look to the planning horizon of 2050.

Local actions by stakeholders and partners should align with and help realize the vision. Example actions are grouped into categories, including thoughtful storage, meeting future water needs, wise water use, healthy lands, and engaged partners. In addition, each action area vision describes ways in which it intersects and integrates with other action areas to demonstrate how the areas are intertwined and relate. The overarching vision for each action area is described below.

VIBRANT COMMUNITIES

Holistic water management is essential for creating vibrant communities that balance water supply and demand needs to create a sustainable urban landscape. Colorado communities need resilient water supplies, water-conscious and attractive urban landscapes, planning that integrates land use and water solutions, and residents who understand the importance of water to their lives and economy. An integrated One Water ethic is necessary to create the transformative change needed to meet the moment and the future.[1]

ROBUST AGRICULTURE

Agriculture not only provides food and fiber, but it is also important to Colorado's culture, heritage, and economy, and it faces unprecedented challenges. Innovations are needed to sustain irrigated agriculture, including strategies to stretch available water supplies, increase resiliency, enhance food production, and maintain profitability. Water supplies for Colorado's urban growth should not come at the expense of our rural communities through indiscriminate buy and dry methods. Collaborative partnerships among agriculture, environmental groups, and municipal water providers should be used to create multi-purpose projects that help keep irrigated lands in production and maintain ecosystem services.

THRIVING WATERSHEDS

Colorado's watersheds hold the future of our water supply security. Comprehensive water resources planning should incorporate conditions of forests, streams, wetlands, and wildlife habitat. As our state's water source, the health of watersheds affects agriculture, downstream communities, recreation, tourism, and ecosystem function. Colorado will continue to follow a shared stewardship ethic to plan and implement multi-benefit projects to enhance the health of our watersheds.

RESILIENT PLANNING

Water security is critical to the quality of life, environment, and economy of Colorado. The future is uncertain, and Colorado needs to be adaptive and resilient to face the challenges ahead. Water security roadmaps, inclusively developed at a local level and informed by strong state leadership, can identify acute and chronic risks to water supply, integrate local planning strategies, prioritize collaborative solutions, and build adaptive capacity and resilience.

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[4] "One Water" means matching the right water to the right use. See Water Plan glossary and Chapter 6 for details and graphic.

VIBRANT COMMUNITIES

Below are several ways that Colorado water users and leaders can help implement the Water Plan. In many cases, grant funding is available to help explore additional work in these areas.

ACTION CATEGORY	PROJECT EXAMPLES
Thoughtful Storage Colorado communities need water supplies that provide clean, reliable drinking water and irrigate landscapes that are attractive and resilient. For many communities, water storage plays a critical role in creating reliable supplies given Colorado's highly variable climate.	• Strategically located storage facilities that meet multiple needs • Storage to meet growth and future uncertainty • Storage in existing, expanded surface reservoirs or in underground aquifers
Meeting Future Water Needs Economic cycles impact population growth, but overall, our population will continue to grow and drive increased demand. While Colorado's recent efforts to save water though efficiency and conservation have kept water demands steady in the face of growth, future water supplies will be stretched. Communities need to use water in increasingly efficient ways to meet multiple needs.	• Supplies that provide reliable and safe drinking water and consider agriculture, recreation, and the environment. • Invest in infrastructure and increase efficiency and conservation • Proper and accurate monitoring of water use and reduce water loss
Wise Water Use Communities need to continue advancing programs and planning that strive for ever-greater levels of indoor and outdoor water efficiency. Colorado water supplies are stressed and will be even more so in the future. Cities will need to build and redevelop with an eye toward densification and creative water-savings techniques that use green infrastructure.	• Implement water-saving measures though conservation and efficiency programs and investing in innovative technologies • Invest in One Water and reuse strategies and infrastructure • Rate structures that encourage water savings
Healthy Lands Increasing temperatures will have significant impacts to Colorado communities, especially when it comes to outdoor water use for irrigation. Many of Colorado's current urban landscapes will be unsustainable in a warmer and drier climate. Colorado must start building the landscapes of the future by identifying and planting the types of vegetation that are reflective of local natural landscapes, can thrive under warmer and drier conditions, and potentially only need irrigation one day per week or less.	• Plan for and create low-water-use landscapes • Plan holistically for urban landscapes that improve quality of life • Support urban agriculture that produces local food, preserves open space, and creates connections between urban residents and agriculture
Engagement and Education Partner engagement is critical to the success of the Water Plan. Partners do not just include the typical stakeholders that engage in water issues — partners include all Coloradans. Partner engagement needs to occur at different scales—from the federal and state levels down to local government and individual residents.	• Government: Public education on water efficiency, implementing conservation and efficiency programs, updating codes • Non-governmental organizations, business: Research and promote new efficiency technologies • Residents: Adopt water-saving measures for both indoor and outdoor water use

ROBUST AGRICULTURE

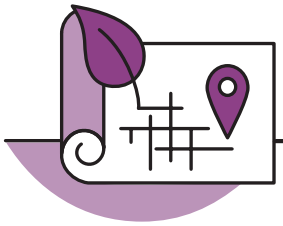
Below are several ways that Colorado water users and leaders can help implement the Water Plan. In many cases, grant funding is available to help explore additional work in these areas.

ACTION CATEGORY	PROJECT EXAMPLES
Thoughtful Storage While large storage projects may often be out of reach financially for individual producers, developing partnerships for multi-purpose storage projects will be the key to providing water for the benefit of the agricultural sector.	• Storage to protect and enhance existing agricultural uses under future uncertainty • Storage to provide supply and flexibility for augmentation plans • Strategic and smaller storage facilities that meet multiple needs
Meeting Future Water Needs Rehabilitation and modernization of farming and ranching infrastructure can help agriculture be more efficient and protect our existing agricultural economy and irrigated acres. It often requires investment in additional infrastructure to support modern technologies. Reduction in supplies due to climate change means that producers may have to do more with less. Finding ways to efficiently use available supplies will support these efforts.	• Rehabilitate agricultural storage facilities to fully utilize water rights • Replace diversion structures to improve irrigation and potentially enhance recreation and stream habitat • Improve measurement of agricultural uses
Wise Water Use Reduced agricultural area does not always need to result in reduced economic output. Finding ways to maintain economic value will involve investing in agricultural innovation and supporting producer adaptation to water supply constraints from aridity and groundwater sustainability. Supporting communities as they transition to more sustainable water use involves not just providing funding but supporting planning that builds a robust agricultural future with increased ecosystem and community benefits.	• Conveyance efficiency improvements that increase water delivery and predictability • On-farm efficiency improvements that save labor and better meet crop needs • Lower water use cropping that leverage industry innovations and also maintain economic output
Healthy Lands Irrigated land not only provides food and fiber to people and animals, but creates return flows that support streamflow for fish passage, habitat and food for riparian species, and other environmental benefits. Promoting multi-purpose projects that support agriculture, water quality, and water conservation generate a multitude of shared benefits for agricultural, environmental, and recreational water uses. For example, conservation easements can preserve irrigated lands while providing financial benefits to farms and ranches.	• Increase soil heath and effective use of water • Implement strategies to make natural working lands a sink for greenhouse gas emissions • Reduce on-farm erosion and improve water quality
Engagement and Education As Colorado grows, its cities are expanding. This has frequently led to the sale and dry-up of agriculture lands for water supply purposes or as urban footprints expand. Buy and dry of agricultural water rights has cascading impacts to jobs, local tax base, businesses that support agriculture, and other adverse economic outcomes. Cities have opportunities to identify how they can grow with agriculture. Finding opportunities to keep agricultural lands in production that are in or adjacent to cities are increasingly needed.	• Government: Promote agriculture's importance through engagement and partnerships • Quasi-governmental agencies and others: Engage local agricultural producers on water issues and innovations • Residents: Provide pathways for success to the next generation of farmers through supporting local agriculture

THRIVING WATERSHEDS

Below are several ways that Colorado water users and leaders can help implement the Water Plan. In many cases, grant funding is available to help explore additional work in these areas.

ACTION CATEGORY	PROJECT EXAMPLES
Thoughtful Storage A key component to achieving or maintaining a thriving watershed is to provide adequate streamflows that support critical habitat for wildlife and protect recreational interests. While water storage projects impact streams, they can also provide flexibility in delivering the necessary flows and timing of flows to priority streams.	• Streamflow enhancement through retiming and strategic releases to enhance habitat • Nature-based solutions that support watershed health and improve ecosystems • Flows for boating and flatwater recreation
Meeting Future Water Needs Water demands for growing cities and agriculture are expected to increase, which will continue to strain available water supplies for environmental and recreational needs. Furthermore, climate change will add uncertainty to future precipitation amounts, as well as runoff rates, timing, and volumes. Integrated planning and multi-use projects are needed to meet water demands across all sectors of water use and improve stream health and function.	• Rehabilitate streams to improve habitat, reduce erosion, and meet needs • Improve fish passage and water use efficiency by replacing agricultural headgates • Increase access to recreational opportunities through inclusive approaches
Wise Water Use A direct relationship exists among the natural environment, people, and resilience. Recognizing the social, ecological, and economic connections among forests, riparian corridors, and river systems is critical to understanding that our water systems depend on the health of natural systems. Building resilience through careful planning and development can help us adapt to flood, fire, and drought and lower risks to humans, watersheds, and wildlife.	• Streamflow and lake level protections for environmental needs • Create greater drought, fire, and flood resilience through stream and watershed restoration • Invasive phreatophyte and species removal
Healthy Lands Effective watershed management and shared stewardship requires collaboration across multiple scales, jurisdictions, and geographies. It brings together national, regional, state, Tribal, local governments, and stakeholders to plan, prioritize, and act together. From state agencies to local watershed collaboratives, the goal must be to jointly work backward from the desired end results and focus on high-value, prioritized opportunities to address risk and create opportunities to enhance stream and watershed health.	• Forest health improvements that enhance watershed resilience and water quality • Reconnect floodplains using nature-based solutions • Improve riparian and aquatic habitat
Engagement and Education Partner and stakeholder engagement is a critical element of successful watershed planning efforts that focus on river health. Plan development and implementation should be tailored to local stakeholder values, the unique characteristics of watersheds, and an evaluation of current conditions that may shift assumed priorities. Projects identified through stakeholder-based watershed planning efforts are often grant-funded and show how local prioritization efforts lead to project advancement.	• Government: Support research and education on local watershed health • Non-governmental organizations: Assist in data collection, project implementation, analysis, and education • Residents: Participate in community science and local watershed groups



RESILIENT PLANNING

Below are several ways that Colorado water users and leaders can help implement the Water Plan. In many cases, grant funding is available to help explore additional work in these areas.

ACTION CATEGORY	PROJECT EXAMPLES
Thoughtful Storage Storage can play a key role in building resiliency and mitigating risk to life and property from natural hazards. Storage can help communities maintain or develop reliable water supplies in the face of shifting runoff patterns and longer or deeper droughts due to climate change. Storage is critical to lowering flood risk, which may become more severe in the future.	• Flood storage for more extreme conditions driven by climate change • Protect storage from effects of wildfire and resulting debris flow • Storage to build drought resiliency
Meeting Future Water Needs In the context of resilient planning, meeting future water needs can mean several things. It means using One Water approaches to planning resilient water supplies while maintaining and enhancing overall water quality. It means taking action to prepare for and mitigate risk from natural hazards that can impact people and property but also impact critical water supply infrastructure.	• Integrated planning that considers future uncertainty • Green infrastructure that improves water quality while creating urban green spaces • Multi-purpose projects for building resiliency across water use sectors
Wise Water Use Every Coloradan needs to use water wisely. Education and outreach are needed to equip Coloradans to take action to conserve water. Education and outreach opportunities need to spur new thinking, connect people to solutions, and invite the next wave of innovation. In addition, Coloradans need to be educated in an inclusive way about opportunities to participate in strategies to conserve water and programs to assist with implementing conservation measures.	• Accessible water conservation programs and incentives • Water efficiency and drought plans that are trackable and implementable • Conservation-oriented outreach and education
Healthy Lands Climate change will create a multitude of interconnected issues that impact our working lands and how we plan for the future. Coloradans need adaptive planning processes to better prepare for, respond to, and recover from climate change impacts. Multi-pronged solutions should be explored that support not just water, but also clean energy goals, local food strategies, natural hazard planning, economic vitality, and funding that maximize the effectiveness of cross-sector resources.	• Pre- and post-hazard planning for critical infrastructure • Support for natural and working lands that consider carbon-smart land management strategies • Coordinate on forest health and understand forest hydrology to better implement restoration projects
Engagement and Education Raising awareness and helping all Coloradans recognize our water scarcity issues will be important to addressing our challenges. Education is the key to bridging perceived divides geographies and cultures. Public education around water must be increased, and outreach efforts should be increasingly inclusive. The State should work with local governments to support common messaging that increases awareness of water challenges and helps all Coloradans understand the critical importance of funding, collaboration, and multi-purpose projects.	• Government: Improve coordination and messaging and promote innovation • Quasi-governmental entities, non-governmental organizations: Support collaboration across sectors and groups • Residents: Explore water career paths and participate in education programs

THE COLORADO WATER PLAN IS
A BRIDGE TO ACTION

Learn more and commit to helping build a more water secure future by joining the conversation and taking actions, big and small, to conserve water. Make your voice heard by participating in future cycles of the Water Plan.

Get more information on CWCB funding programs on the Funding Page of the DNR CWCB website.

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