COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Colorado Water Conservation Board

Water Plan

Water Project Summary

Name of Applicant	Town of Telluride
Name of Water Project	Comprehensive Water Provision Plan
Grant Request Amount	**$336,000.00**
Primary Category	$336,000.00
Conservation & Land Use Planning	
Total Applicant Match	**$164,000.00**
Applicant Cash Match	$144,000.00
Applicant In-Kind Match	$20,000.00
Total Other Sources of Funding	**$0.00**
Total Project Cost	**$500,000.00**

Applicant & Grantee Information

Name of Grantee: Town of Telluride
Mailing Address: PO Box 397 Telluride CO 81435

Organization Contact: Amie Martell
Position/Title: Water/Wastewater Division Manager
Phone:
Email: amartell@telluride.gov

Organization Contact - Alternate: Justin Blair
Position/Title: Civil Engineer
Phone: 970-708-1962
Email: jblair@telluride.gov

Grant Management Contact: Amie Martell
Position/Title: Water/Wastewater Division Manager
Phone:
Email: amartell@telluride.gov

Grant Management Contact - Alternate: Amie Martell
Position/Title: Water/Wastewater Division Manager
Phone:
Email: amartell@telluride.gov

Engineering Contact: Tara Ogren
Position/Title: Town Engineer
Phone:
Email: togren@telluride.gov

Description of Grantee/Applicant

Town of Telluride currently operates wastewater and domestic/potable water provision utilities.

Type of Eligible Entity

☐ Public (Government)
☐

- [ ] Public (District)
- [x] Public (Municipality)
- [ ] Ditch Company
- [ ] Private Incorporated
- [ ] Private Individual, Partnership, or Sole Proprietor
- [ ] Non-governmental Organization
- [ ] Covered Entity
- [ ] Other

Category of Water Project

- [ ] Agricultural Projects
  Developing communications materials that specifically work with and educate the agricultural community on headwater restoration, identifying the state of the science of this type of work to assist agricultural users among others.
- [x] Conservation & Land Use Planning
  Activities and projects that implement long-term strategies for conservation, land use, and drought planning.
- [ ] Engagement & Innovation Activities
  Activities and projects that support water education, outreach, and innovation efforts. Please fill out the Supplemental Application on the website.
- [ ] Watershed Restoration & Recreation
  Projects that promote watershed health, environmental health, and recreation.
- [ ] Water Storage & Supply
  Projects that facilitate the development of additional storage, artificial aquifer recharge, and dredging existing reservoirs to restore the reservoirs' full decreed capacity and Multi-beneficial projects and those projects identified in basin implementation plans to address the water supply and demand gap.

Location of Water Project

Latitude	37.940000
Longitude	-107.810000
Lat Long Flag	Municipal Center: Coordinates based on center point of municipal boundary
Water Source	
Basins	Southwest
Counties	San Miguel
Districts	60-San Miguel River Basin

Water Project Overview

Major Water Use Type	
Type of Water Project	Planning
Scheduled Start Date - Design	4/1/2026
Scheduled Start Date - Construction	

Description

The Town of Telluride seeks funding for its Integrated Water Master Plan (“Plan”) to ensure the long-term reliability, resiliency, and efficiency of Town’s drinking water system. Telluride’s highelevation headwaters, limited access to facilities, aging infrastructure, and seasonal variations in source water availability present unique challenges that will be addressed by the Plan’s updated demand projections, source water protection strategies, storage requirements, treatment capacity evaluations, and resiliency planning.

To guide infrastructure project prioritization, the Plan will incorporate Town's latest AquaTwin modeling, verify plant capacities, identify capital improvements, and evaluate storage solutions. The Plan will quantify future water needs using updated population and tourism projections, Polaris demand modeling, and meter data analysis. Given Telluride's headwaters are highly vulnerable to wildfire, post-fire debris flows, sediment loading, and rockfall, this project will include an update to the 2016 Source Water Protection Plan to identify watershed protection strategies, multi-agency coordination opportunities, and emergency response improvements. This will include a Water Resiliency Plan to evaluate climate-driven impacts on supply, drought, wildfire, access limitations, plant disruptions, and redundancy. Finally, to support demand forecasting and system efficiency, the project will evaluate water meter replacement capital needs related to advanced metering in service to leak detection and non-revenue water.

Measurable Results

	New Storage Created (acre-feet)
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive
5	Existing Storage Preserved or Enhanced (acre-feet)
	New Storage Created (acre-feet)
	Length of Stream Restored or Protected (linear feet)
	Length of Pipe, Canal Built or Improved (linear feet)
$75,000	Efficiency Savings (dollars/year)
15	Efficiency Savings (acre-feet/year)
	Area of Restored or Preserved Habitat (acres)
	Quantity of Water Shared through Alternative Transfer Mechanisms or water sharing agreement (acre-feet)
4,000	Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning
4,000	Number of Coloradans Impacted by Engagement Activity
Other	

No additional measurable results provided

Water Project Justification

Town of Telluride's intended Integrated Water Master Plan, for which Town is seeking CWCB Water Plan Grant funds, will directly advance several core goals of Colorado's Water Plan (CWP, 2023 Update) and the Southwest Basin Implementation Plan (BIP) by improving water efficiency, advancing integrated water resource planning, strengthening source water protections, and building system resiliency against wildfire, climate change, and infrastructure vulnerabilities.

The Integrated Water Master Plan will address the following Colorado Water Plan Goals:
- Goal: Maintain and Improve Water Supply Reliability (CWP, Ch. 5, Supply & Demand Management).
The Integrated Water Master Plan will quantify future water demands, storage needs, and treatment capacity requirements for the 2027–2037 planning horizon. Updated demand projections, meter data analysis, and hydraulic modeling will directly support statewide objectives to ensure reliable municipal water supplies.

- Goal: Protect and Restore Watersheds (CWP, Ch. 7.2, Watershed Health & Forest Management).
Updating the 2016 Source Water Protection Plan aligns with the state's objectives to protect highquality headwaters, especially in areas vulnerable to wildfire, steep terrain, debris flows, and sedimentation. Telluride's source waters originate in highrisk mountain terrain, making watershed protection a top priority.

- Goal: Water Efficiency and Conservation (CWP, Ch. 6.3).
Meter replacements align with the specified Neptune model that is required by the Water Division. Leak detection

and system water loss analysis support statewide efforts to reduce water waste, improve data accuracy, and integrate conservation into utility operations.

- Goal: Climate Resilience (CWP, Ch. 8).
The resiliency planning component (wildfire impacts, redundancy, emergency operations, and storage vulnerability) directly supports actions to address climate-driven changes in hydrology and extreme events.

Telluride's intended Water Master Plan also addresses the following applicable basin priorities:
- Municipal & Industrial Water Strategies (SWBIP, Section 4.3):
--Improve water efficiency and reduce system losses
--Plan for climate variability
--Improve infrastructure reliability
--Strengthen source water protection

- Watershed Priorities (SWBIP Section 5.1):
--Mitigate wildfire risk to critical watersheds
--Protect drinking water intakes
--Maintain instream flow protections

The Telluride Master Plan specifically addresses all of these basin priorities and supports long-term basin water security.

The new Integrated Water Master Plan will address reduction of future water needs by evaluating capital improvement needs that would further optimize treatment, distribution, and storage efficiencies. A task to be evaluated is whether existing groundwater wells at Town Park could be permitted to provide irrigation water only to existing irrigation systems through out Town Park with some plumbing and excavation efforts. Likewise, the cemetery irrigation system remains one of the Town's largest users of potable water. Town staff wishes to evaluate for the connection of a cistern with partially directed flows from the upstream Primrose Ln development to supplement irrigation supply.

This Plan will also implement actions identified in locally adopted water conservation, efficiency, and drought management plans by advancing multiple actions identified in locally adopted water conservation, efficiency, and climate/resilience plans for the Town and San Miguel County. Specifically, the Master Plan will:
- Implement meter replacement and advanced metering strategies to better quantify and reduce non-revenue water, directly addressing Telluride's stated objective to "better quantify non-revenue water" and Water Efficiency Plan goals. telluride-co.gov+1
- Update water-demand projections and incorporate conservation as an integral supply source, consistent with the Town's Water Efficiency Plan (2020–2027) and CWCB guidance. telluride-co.gov
- Integrate updated landscaping/irrigation standards and demand-management measures called for in Telluride's Climate Action Plan (2022) and recent municipal code updates, supporting irrigation efficiency and demand reductions. telluride-co.civicweb.net+1
- Advance drought and resiliency planning (drought triggers, emergency storage operations, wildfire and post-fire mitigation for headwaters), consistent with Town and regional climate resilience objectives and the County's climate action coordination. telluride-co.gov+1

Deliverables from the Master Plan that enact these local actions will include an updated Water Efficiency Plan and conservation target table, an AMI/AMI deployment plan and backflow survey, a land-use/water integration

chapter with recommended irrigation code updates, and a Resiliency & Drought Management chapter with operational triggers and response actions.

Locally supported efforts:
- Town of Telluride Water Efficiency Plan 2020–2027: explicitly follows CWCB guidance, targets optimization of diversion/transmission/distribution and end-use efficiency; identifies the need to better quantify non-revenue water. telluride-co.gov

- Town of Telluride Water Conservation Plan (2014) and municipal code updates: set reduction targets (reduce outdoor irrigation and peak day demand) and list code/policy measures for irrigation and indoor water use. telluride-co.civicweb.net+1

- Telluride Climate Action Plan (2022): calls for updates to landscaping standards to improve irrigation efficiency and broader integration of energy/water efficiency in municipal planning. telluride-co.civicweb.net+1

- San Miguel County / Regional Climate Action coordination: County-level climate & resilience programs (Ouray/San Miguel CAP) prioritize resilience, energy efficiency and cross-jurisdictional climate actions that align with drought and source-water protection goals. sanmiguelcountyco.gov+1

The Town of Telluride's Integrated Water Master Plan directly implements actions in locally adopted water conservation and climate plans by advancing meter replacement and AMI deployment to quantify and reduce non-revenue water; updating demand forecasts and treating conservation as a supply; recommending irrigation/landscape code updates to improve outdoor water efficiency; and producing a drought & resiliency chapter that aligns with Town and regional climate action priorities. Deliverables include an AMI implementation plan and leak reduction targets, an updated Water Efficiency Plan consistent with CWCB guidance, a land-use/water integration chapter with code recommendations, and a Resiliency & Drought Management Plan with operational triggers and mitigation measures.

The Integrated Water Master Plan will integrate efficiency planning and projects into the hydraulic model, capital improvement plan, and long-term supply/storage strategies so conservation is treated as a supply-source in scenarios. Deliverables: model runs showing reduced peak demands and deferred capital (years of deferral and $ saved), and a final CIP that includes conservation projects alongside physical infrastructure.

The Integrated Water Master Plan promotes a water efficiency ethic because the project includes a public engagement and stakeholder outreach program that documents community education materials, metrics of engagement (number reached; workshops held), and an implementation guide/toolkit that other mountain communities can adapt. Deliverables: outreach report, public-facing fact sheets, and a "lessons learned" summary suitable for statewide sharing. In addition, the water efficiency portion of the plan will target communication efforts and strategies to high water users based on demands study and explore other options such as non-potable water use, alternative rate structuring, best practices for water use, and other options to be developed by the plan.

While reuse options in high-elevation Telluride are technically constrained, the Integrated Water Master Plan will evaluate feasible reuse opportunities (e.g., treated effluent for irrigation/snowmaking, groundwater recharge feasibility, or non-potable reuse at municipal facilities, snowmaking operations, irrigation, etc) with cost/benefit and environmental analyses. Deliverables: screening-level feasibility memo for reuse options with recommended

next steps and pilot opportunities.

The Integrated Water Master Plan will coordinate with Town planning and growth projections to align water availability, service-area boundaries, and conservation-based development policies. Deliverables include a land-use/water integration chapter, recommended code or policy language for water-smart development, and maps linking projected growth to infrastructure needs and conservation targets.

The Integrated Water Master Plan will advance conservation planning efforts through its updates to demand projections using meter data and Polaris-style modeling, establishing measurable conservation targets, and producing an actionable conservation implementation plan (meter program, customer-facing programs, and utility operations changes). Deliverables: updated demand curves, conservation target table (AF/year and % reduction), and an implementation schedule with budget estimates.

The Water Resiliency Plan component of the Integrated Water Master Plan will include drought scenario modeling, prioritization of critical customers and infrastructure, defining drought conditions, emergency operations procedures, and drought-triggered actions (e.g., mandatory reductions, alternative supply operations) and within the legal water rights that are secured for the Town. Deliverables: drought-risk matrix, trigger thresholds, operational playbook for drought stages, and recommended capital actions to improve drought resilience.

The Integrated Water Master Plan will prepare for the impacts of climate change because climate-informed hydrologic scenarios, wildfire risk assessments, and access/disruption planning will be incorporated into the Master Plan so capital and operational recommendations explicitly account for projected climate impacts. Deliverables: climate scenario runs (supply projections), wildfire impact and mitigation recommendations for source protection, and prioritized resilience projects. This section will be geared towards operational procedures and be specific to operations of the water treatment plants so that operators can easily understand the climate conditions and make informed decisions at an operational level that directly effects daily productions.

The conservation plan component of the Integrated Water Master Plan will follow the Water Conservation Plan Development Guidance Document (structure, best practices, and recommended metrics), ensuring CWCB-aligned content and reporting compatibility. Deliverables: full conservation plan that maps to guidance document sections and a checklist showing compliance.

The drought planning component of the Integrated Water Master Plan will utilize accepted drought management guidance and best practices (e.g., staged triggers, operational continuity, customer communication templates) to provide an implementable drought-management plan tailored to Telluride’s system. Deliverables: drought management plan with triggers, response actions, communications templates, and roles/responsibilities consistent with guidance documents.

Related Studies

This project builds upon and complements the following previously completed studies and CWCB-related programs:

1977 Water Master Plan
1993 Water Master Plan Update
2002 Projected Water Demand Estimate
2010 Projected Water Demand Study
2016 Source Water Protection Plan (CDPHE/CWCB framework)
2023 Water Rate Study
2025 AquaTwin Hydraulic Model and GIS Database
Town growth projection spreadsheets (latest version provided by Planning Dept.)
Stillwell Tank condition assessments (2016, 2022)
Infrastructure rehabilitation records for distribution, PRVs, and treatment facilities

Taxpayer Bill of Rights

The Town of Telluride "debruced" by popular vote in 1994 (586 to 204), and the Town can therefore receive, retain, and expend revenues that include non-federal grants without spending limitations.