

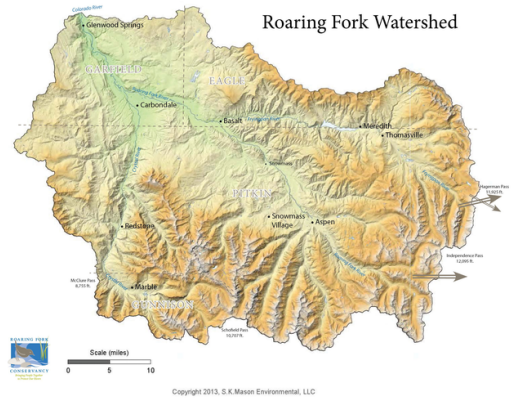
Ruedi Water and Power Authority, CO Unified Baseline Watering Standards



Project at-a-Glance

Community Overview

- Utility/Community: Ruedi Water and Power Authority
- Location: Basalt, CO
- Population served: 32,579
- Service area: 973 square miles



Project Partners



Project Benefits

- Creates a consistent and easy to follow outdoor watering schedule for residential and commercial customers receiving municipal water supply in the Roaring Fork Watershed.
- Increases water efficiency by limiting outdoor watering to the coolest parts of the day and to specific days of the week.
- Provides capacity for emergency response needs (i.e., drought, wildfire, operational, etc.) and ensures proper functioning of water systems during peak demand.
- Preserves water resources for environmental, recreational, agricultural, and other uses throughout the watershed.

Project Challenges



Climate change



Drought



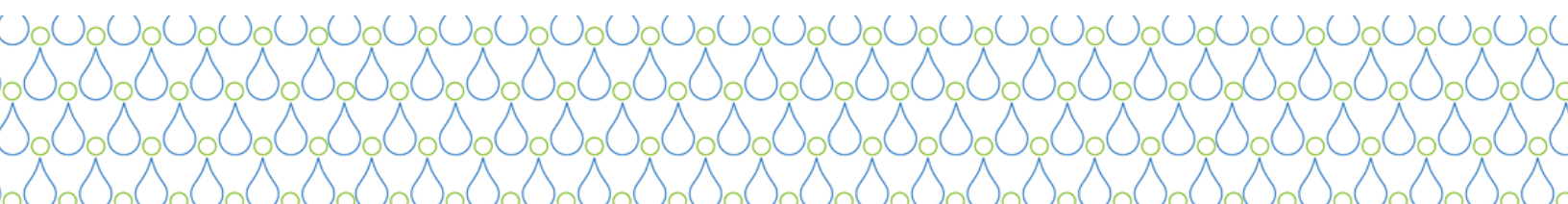
Changing population



Lack of reliable water supply

Strategies for Success

WaterNow Alliance (WaterNow) and Western Resource Advocates (WRA) partnered with the Ruedi Water and Power Authority (RWAPA), a consortium of the local governments in the Roaring Fork Watershed (RFW), to support their goal, identified in their Regional Water Efficiency Plan, to develop unified outdoor watering standards. Outdoor watering schedules vary across the six water providers within the watershed creating communication challenges, particularly for many of the residents who live and work in different jurisdictions. The goal of this project was to develop a baseline, consistent outdoor watering standard with a widespread messaging campaign to alleviate confusion, increase compliance, and reduce outdoor water demand throughout the watershed. Through a robust research and stakeholder engagement process, WaterNow and WRA provided recommendations for the baseline outdoor watering standards, developed an implementation roadmap, and identified effective messaging and communication strategies for RWAPA to consider when implementing the standards.



Project Spotlight

Located in central Colorado on the west side of the Continental Divide, the RFW encompasses an area of 1,451 square miles. The watershed includes the Sawatch, Collegiate, and Elk Ranges of seven 14,000-foot peaks. Snow melting in these high peaks collects and enters one of three main rivers—Roaring Fork, Frying Pan, and Crystal—which drain to the Colorado River in Glenwood Springs. The RFW is a critical headwater to the Colorado River, contributing about 856,000-acre feet of water each year.¹

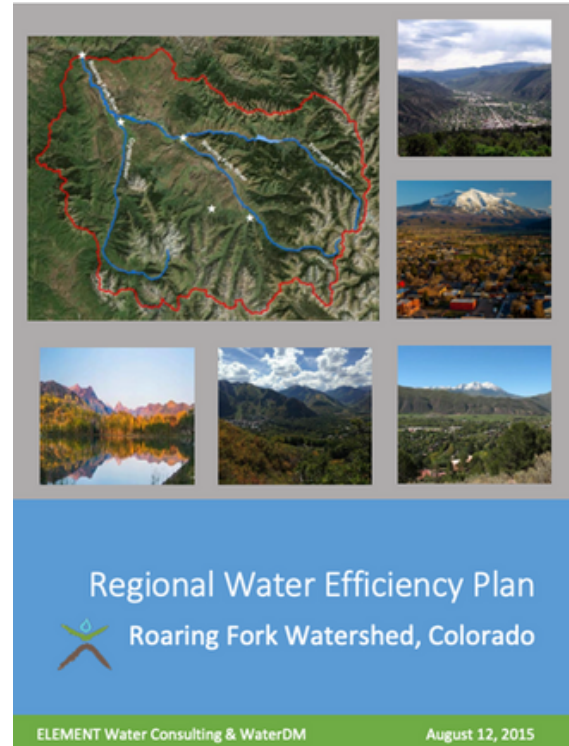
Facing decades of drought, limited upstream water storage, and a drier future, the RFW must explore all options for using less water. All the water providers in the RFW have established annual water conservation goals and many are motivated by waterwise stewardship. However, existing outdoor watering standards vary (i.e., time of day and day of week) across the jurisdictions. This creates communication and compliance challenges, particularly for the many residents, landscape professionals, property managers, and others who live and work in the different jurisdictions of Aspen, Basalt, Carbondale, Glenwood Springs, Snowmass Village, and other unincorporated areas of Eagle and Pitkin counties.

¹<http://www.roaringfork.org/your-watershed/watershed-facts/>

RWAPA, with support from the water providers, aimed to develop and implement unified outdoor watering standards across the watershed to create a consistent message, help alleviate confusion, increase compliance, and improve water efficiency practices throughout the region. The goal of this project was to help ensure an adequate water supply for future generations and enhance the environmental, recreational, and agricultural values unique to the watershed.

In partnership with RWAPA, WaterNow and WRA carried out a phased approach to inform the development of the unified outdoor watering standards and implementation plan:

- **Phase 1:** Review the five RWAPA jurisdictions water efficiency plans, landscaping standards, and permanent or drought-tiered watering restrictions to become familiar with water supply reliability and outdoor water use priorities in the RFW. Research permanent, drought-tiered, and voluntary outdoor watering restrictions throughout Colorado and the West to better understand what restrictions are in place for communities that have similar characteristics to the RFW (e.g., mountain towns, tourism-based economy, climate and geography, population size, etc.). And, conduct informational interviews with four water utilities in Colorado that have implemented similar outdoor watering restrictions and programs to assess the effectiveness of their watering schedule and distill any lessons learned from their design and implementation.
- **Phase 2:** Conduct 9 informational interviews with the jurisdictions and other relevant stakeholders in the RFW to share research findings from Phase 1, discuss current watering restrictions, gauge preferences on watering schedules (i.e., timing and days of the week), and gauge initial interest and support on aligning watering standards across the watershed.
- **Phase 3:** Draft the outdoor watering standards, identify the changes required to coordinate schedules across the RFW providers, and share these findings with the stakeholders engaged in Phase 2 and the RWAPA board. Incorporate feedback from these groups into the final outdoor watering standard recommendations.
- **Phase 4:** Finalize the proposed outdoor watering standard ordinance language, justification, and implementation next steps for municipal water providers in the RFW to adopt coordinated future watering schedules for their customers.



The Regional Outdoor Water Efficiency Plan for the Roaring Fork Watershed identified goals to reduce water use and increase communication and outreach within the valley.

This project set out with the immediate goal of developing and implementing a coordinated, baseline outdoor watering standard and schedule across the watershed. Throughout the project, the RWAPA board and water provider staff identified additional regional water conservation needs including increasing current water conservation programming efforts for customers, landscape professionals, property managers, and others on outdoor landscaping best practices (i.e., appropriate plant selection, plant water requirements, irrigation controller programming, big-picture RFW and Colorado River system challenges, etc). This educational programming may include producing additional materials such as fact sheets or brochures, hosting educational events and workshops, creating demonstration gardens, providing free or discounted smart irrigation controllers, and more.



Project Impacts

In November 2022, the RWAPA Board voted unanimously in support of the adoption of these unified outdoor watering standards by the RWAPA member agencies. Additionally, RWAPA board members agreed to support each of their jurisdictions throughout the council adoption and approval processes. These outdoor watering standards will be paired with a professionally designed education and outreach campaign to ensure these coordinated outdoor watering standards are successful.

The proposed outdoor watering standards would apply to any residential or commercial customer receiving municipal water supply from the City of Aspen, Town of Basalt, Town of Carbondale, City of Glenwood Springs, Snowmass Water & Sanitation District, and Mid-Valley Metropolitan District.



Glenwood Springs watering schedule flyers from 2021, in English and Spanish.

The proposed water use schedule would be in effect year-round and limit outdoor watering to between 6pm and 9am, to coincide with the coolest periods of the evening, night, and morning. The proposed schedule would also use a designated 3-day per week watering schedule, such that properties with an even address water on Tuesday, Thursday, and Saturday and properties with an odd address water on Wednesday, Friday, and Sunday, with no outdoor watering allowed on Mondays. This schedule would result in reduced peak demands on the water system by distributing watering days and it would also allow for one day a week of no watering where storage could be refilled in order to better prepare for wildfire demands or other operations emergencies. Exceptions, curtailments, and violations were also outlined to address unique situations and enforcement mechanisms.

Supporting the implementation of the unified baseline watering standards in the RFW is one important step that water providers, with support from RWAPA, can take to reduce confusion, improve communication and outreach to customers, and align on a shared ethos towards water stewardship throughout the region.



Lessons Learned

The project team identified several key lessons learned for communities looking to implement similar baseline watering standards on the regional scale:

- Don't reinvent the wheel. Connect with other municipal water providers with similar characteristics to understand what education, outreach, and enforcement systems work best for them, because their best practices and challenges will provide new insight into the most effective watering standards.
- Undertake a thorough stakeholder engagement process with all of the affected jurisdictions to hear and address their unique concerns and ideas. For instance, the Roaring Fork Valley is a popular tourism destination and exceptions were made for snowmaking operations in the proposed outdoor watering standards.
- To be most effective, watering standards should be paired with an education and outreach campaign that provides resources in all languages spoken by the community and a suite of communication materials for both customers and landscape professionals.