

# REGIONAL WATER EFFICIENCY PLAN

## Roaring Fork Watershed, Colorado



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## EXECUTIVE SUMMARY

### PURPOSE

The Roaring Fork Valley is a scenic and historic part of Colorado that includes 14,000 foot peaks, snow-fed rivers, cities, towns, farms, ranches, homes, businesses, ski areas, and much more. Water is the lifeblood of the Roaring Fork Valley. Recognizing the connection between water conservation, water supply planning, and a broad interest in the Roaring Fork watershed, the water utilities of City of Aspen, Snowmass Water and Sanitation District, Town of Basalt, Town of Carbondale, and City of Glenwood Springs have all completed or updated their municipal Water Efficiency Plans in 2014 and 2015. These plans evaluated the projected water demands for each individual municipal supply system under passive and active water efficiency programs, and compared projected demands to their individual water supplies. Each water provider has selected appropriate efficiency measures to reduce water use and meet their water demand and supply objectives. The intent of this Roaring Fork Watershed Regional Water Efficiency Plan (“Regional Water Efficiency Plan” or “Regional Plan”) is to build upon the individual municipal plans by unifying efforts and identifying programs that benefit from consistency and sharing of resources.

*All communities and stakeholders in the Roaring Fork Valley (not just those that helped create this plan) are invited and encouraged to participate in the regional water efficiency effort.*

**The goals of this Regional Water Efficiency Plan for the Roaring Fork Watershed are to implement municipal water efficiency programs on a regional scale and to achieve higher and more effective benefits, compared to implementing the same programs individually.**

The goals were first agreed to in the Memorandum of Understanding (MOU) that joined the participants together to seek funding from the Colorado Water Conservation Board (attached). The MOU states that the cosignatories:

- “Recognize their individual interests in water conservation planning have regional significance within the Roaring Fork watershed.”
- “May be able to implement elements of their individual water conservation plans more easily and more successfully if they are common components of a Roaring Fork Watershed Regional Water Conservation Plan.”
- “Understand there are community and regional benefits from implementing a Roaring Fork Watershed Regional Water Conservation Plan, such additional water for drought protection, recreational uses and environmental uses.”

The MOU outlined fundamental areas of agreement and basic principles that formed the underlying foundation of this Regional Water Efficiency Plan for the Roaring Fork Watershed.

All water districts and water users in the Roaring Fork Valley are invited and encouraged to join the regional water efficiency effort, to adopt these basic principles of cooperation, and to help implement the recommended regional water efficiency activities described below.

This planning effort was funded in part by a Water Efficiency Planning Grant from the Colorado Water Conservation Board (CWCB), requiring that the grant money be used for municipal water efficiency planning purposes. ELEMENT Water Consulting and WaterDM were selected through an RFP process to prepare this Regional Water Efficiency Plan and the individual plans for City of Aspen, Town of Basalt, Town of Carbondale, and City of Glenwood Springs. SGM prepared the individual plan for Snowmass Water and Sanitation District.

Implementing municipal efficiency on a regional scale is just one of many important steps toward the region's broader watershed health goals, which necessitates engaging other stakeholders and water users. While the scope of this plan was limited to municipal water efficiency measures, other uses also impact the watershed; municipal efficiency cannot be the only approach to maintaining and improving the Roaring Fork Watershed. The activities identified in this plan are not intended to undermine or override Colorado's water rights system, and the hope is that this is the start of a broader conversation and a template that can include other stakeholders and sectors to extend the savings beyond the five municipal providers who were directly involved in creating this regional plan.

*This Regional Plan provides a template that can include other stakeholders and sectors to expand and extend the savings beyond the five municipal water providers who were directly involved in creating this plan.*

## **RECOMMENDED REGIONAL WATER EFFICIENCY ACTIVITIES**

The Roaring Fork communities share common interests, and there is consistency and overlap in the water efficiency-related efforts of the five municipal water providers participating in this regional planning effort. Connected through the Roaring Fork, Fryingpan and Crystal Rivers, and their tributaries, there is opportunity for municipal providers to work collectively with each other and with other stakeholders to improve the effectiveness of demand management and water efficiency for the benefit of the entire watershed. Certain programs benefit from being unified and having consistency (e.g. educational campaigns) and in sharing resources (e.g. developing model landscape/water budget information). The Regional Water Efficiency Plan provides this opportunity and unifies these efforts.

Four broad regional water efficiency programs were identified as part of this Regional Water Efficiency Plan, as summarized below. The regional efficiency programs were selected based on the individual municipal water efficiency plans as well as other local and national water efficiency-related efforts. The specific programs are intended to provide a menu of alternatives and it is understood that *every* program will not be appropriate for every participant, nor will

every participant be capable of participating in all of the programs. In some cases, it will be beneficial to conduct additional feasibility or pilot programs prior to full implementation.

1. **Water Loss Control Technical Assistance** – System auditing, loss tracking, infrastructure maintenance, leak detection and leak repair for water utilities can be improved by the consistent application of best practices. A coordinated effort to provide technical assistance for completing initial water audits and to establish a regular annual audit program for individual water providers is recommended. Information exchange across providers should be encouraged.
2. **Regional Water Efficiency Education and Information Campaign** – Engaging water users and stakeholders can be particularly effective when implemented on a regional scale. Potential initiatives include: (a) coordinated public outreach and education campaigns; and (b) a water efficiency challenge for businesses and homeowner associations (HOAs).
3. **Reduce Outdoor Water Use** – Reducing outdoor water use in the Roaring Fork region is a common goal amongst all of the plan participants. Potential initiatives that could benefit from regional coordination include: (a) a regional model landscape ordinance for new landscapes to be built smart from the start; (b) a landscape design and management certification program targeted at HOA's, property managers and landscaping professionals; and (c) an effort to install rain shut-off devices on irrigation systems across the region.
4. **Improve Water Resource Management** – Water utilities, other rights holders, and water users in the Roaring Fork Watershed can help create long-lasting benefits to streamflow conditions through efficiency and improved water resource management. Exploration of four program measures is recommended in this area: (a) linking water savings to environmental benefits (i.e. improved streamflows during low-flow events); (b) mechanisms to protect water rights and enhance instream flows; (c) improved water accounting for raw water systems; and (d) climate resiliency measures and additional research on climate change impacts on water supplies in the region.

## IMPLEMENTING THE REGIONAL WATER EFFICIENCY PLAN

The water efficiency activities identified in this Regional Water Efficiency Plan provide the basis for implementing water efficiency in a regionally-coordinated manner. Executing the plan will require ongoing efforts and adaptive strategies to allow the plan to generate visible benefits, grow, and change. The following actions are recommended as next steps:

1. **Establish a Regional Plan Implementation Workgroup** with representatives of each major stakeholder group to meet regularly to report on and assist with regional plan implementation. Provide updates at other forum meetings and/or host regular open forms. Include annual reporting around the plan for all participants including:
  - Annual program implementation,

- Program impact estimates including program costs/avoided costs and water savings,
- Lessons learned,
- Public feedback on program,
- Periodic weather data and local trends,
- Water supply concerns,
- Recommendations for studies or pilot programs,
- Recommended plan modifications, and
- Establish ongoing implementation plan.

2. **Develop a funding plan for the Regional Plan implementation.** Identify potential annual and one-time funding sources (e.g. contributions from individual providers, CWCB implementation grants, Colorado Basin Roundtable (CBRT) funding, U.S. Bureau of Reclamation, Natural Resource Conservation Service, and other sources), establish funding commitments, and submit grant applications.
3. **Assign a Regional Plan Coordinator and divide responsibility** for implementing the plan across multiple individuals and organizations. To successfully implement this plan, committed people must step forward and work together. Identifying a plan coordinator and “plan champions” across jurisdictions and stakeholder groups is a critical step in the process. Potential lead organizations include: RWAPA, CORE, or the Roaring Fork Conservancy.
4. **Create a MOU for implementation** that details shared objectives, roles, and responsibilities. An MOU was beneficial in defining goals, expectations, and roles of individual water providers in forming the partnership to create this Regional Water Efficiency Plan. A similar type of agreement would be useful for establishing the roles and responsibilities of participants in the implementation phase.
5. **Dedicate resources and pursue Plan implementation**