



WATER

WATER

INTRODUCTION

Boulder County staff and communities know the value of conserving and protecting water for both ecological and human, Boulder County works to improve water quality, prevent waterborne illness, and reduce any negative ecological and public health impacts to our local water sources.

Given our public drinking water is typically supplied by a water district or municipality, Boulder County has no direct control over water conservation efforts and water quality standards that are set

by our local water utilities. The county does, however, play a very active role in supporting the Keep it Clean Partnership with communities working together to protect our water quality. In addition, the county plays a role in leading efforts to coordinate drought planning among local water providers and developing strategies to encourage smart water management at all levels. The targets in this section outline strategies for smart indoor and outdoor use of water as well as new initiatives to conserve water on agricultural properties managed by the county.

WATER GOAL

Provide ongoing leadership for water efficiency and water quality efforts to ensure sufficient clean water for current and future generations

INTERNAL

TARGET 1

Reduce Boulder County's internal indoor water usage to 20% below the calculated plumbing code requirement* by 2020 in county buildings in aggregate, and concurrently reduce outdoor water usage

**As stated in the 2006 edition of the Uniform Plumbing Code (UPC)*

SHORT-TERM STRATEGIES

STRATEGY 1

Benchmark all county buildings' indoor water use per 2006 UPC by 2014

STRATEGY 2

New county buildings to achieve all the points within the water efficiency section of the U.S. Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) for new construction certification process:

- Eliminate the use of potable water for landscaping

- Reduce use of potable water for waste water by 50%

- Reduce water use in aggregate by 30% from baseline use

STRATEGY 3

Modify current landscaping practices and sprinkler systems to ensure monthly water usage and budget does not exceed lowest billing rate, which can be done by adjusting sprinkler timers for hours when rates are less expensive, for instance

INTERNAL

TARGET 1 CONT.

Reduce Boulder County's internal indoor water usage to 20% below the calculated plumbing code requirement* by 2020 in county buildings in aggregate, and concurrently reduce outdoor water usage

**As stated in the 2006 edition of the Uniform Plumbing Code (UPC)*

INTERNAL

TARGET 2

Reduce potable water use for landscaping to 75% of 2011's consumption by 2020 at county buildings, in aggregate

LONG-TERM STRATEGIES

STRATEGY 4

Replace or retrofit all existing county building plumbing fixtures to reduce water use to 20% below the calculated plumbing code requirement by 2020

SHORT-TERM STRATEGIES

STRATEGY 1

Begin data collection on the following:

- Separate usage for indoor and outdoor
- Square feet of landscape area being irrigated
- Percent of water used that is potable, and named non-potable source(s)
- Sub-metered data on large water uses (laundry facilities; cooling towers/ chillers)
- Sewage volume and cost

- Storm water cost (usually a fixed monthly cost) service charges for all water-related utilities (drinking water; sewage; storm water)

STRATEGY 2

At Boulder County Sheriff's headquarters, complete the installation of a water storage tank to capture purged evaporative cooling water to be used for landscape sprinkler system

STRATEGY 3

At the Boulder County Justice Center, install a cooling water system to water landscaped area (similar to the system developed for the Sheriff's Office) by 2015

INTERNAL

TARGET 3

Improve efficiency of water use on Parks and Open Space agricultural lands

SHORT-TERM STRATEGIES

STRATEGY 1

Adopt a water policy for agricultural lands that would:

- Test quality of water entering and exiting agricultural lands

- Maximize the use of water and maintain or improve quality

- Prioritize irrigation projects

- Invest in water efficiency improvements

EXTERNAL

TARGET 4

Create an inventory of all flows of water within Boulder County, including quantity and quality, to create a countywide water quality data base

SHORT-TERM STRATEGIES

STRATEGY 1

Gather all existing data on drought and water by county agencies and incorporated areas

STRATEGY 2

Clearly identify gaps in existing data, and use inventory to establish new water reduction targets based on the data collected

STRATEGY 3

Work with the Consortium of Cities and other groups to produce data necessary to fill identified data gaps

STRATEGY 4

Create template of data collection for all water-managing agencies and support their reporting that data on regular basis

LONG-TERM STRATEGIES

STRATEGY 5

Support the maintenance of a water-flow inventory database

STRATEGY 6

Coordinate information sharing with adjacent watersheds

STRATEGY 7

Develop coordinated drought response strategies for use by Boulder County water providers through the Boulder County Consortium of Cities Water Stewardship Task Force

STRATEGY 8

Explore coordinated water source and supply strategies through the Boulder County Consortium of Cities Water Stewardship Task Force

EXTERNAL

TARGET 5

Expand water conservation education efforts for Boulder County residents and businesses

SHORT-TERM STRATEGIES

STRATEGY 1

Engage with the “Value of Water” statewide education campaign and any new collaborative water conservation education initiatives championed by the Boulder County Consortium of Cities

STRATEGY 2

Support continued water education provided to businesses and municipal agencies by the Partners for a Clean Environment (PACE)

STRATEGY 3

Amend the EnergySmart program to include loans and rebates for water efficiency measures

STRATEGY 4

Work with local nonprofits and agencies to support water efficiency upgrades throughout the county

STRATEGY 5

List homes that achieve the Environmental Protection Agency’s WaterSense certification in the Green Multiple Listing Service (MLS)

STRATEGY 6

Expand existing youth water education programs to include water conservation and offer these programs to schools, non profits and educational organizations

STRATEGY 7

Develop coordinated water conservation strategies through the Boulder County Consortium of Cities Water Stewardship Task Force

LONG-TERM STRATEGIES

STRATEGY 8

Develop county land use codes and work with local municipalities to require/encourage all new and remodel/addition projects to incorporate water efficiency measures

STRATEGY 9

Support the development and maintenance of a water conservation and watershed plan database

STRATEGY 10

Support the development and regular updating of water conservation plans throughout the county

EXTERNAL

TARGET 6

Improve and maintain water quality

SHORT-TERM STRATEGIES

STRATEGY 1

Have no stream segments in the county listed on the state's list of impaired or polluted waters by maintaining a viable Keep It Clean Partnership and intergovernmental agreement for minimizing pollution impacts in surface waters

STRATEGY 2

Support policies that regulate the negative impacts on water quality from oil and gas exploration and development

STRATEGY 3

Continue Boulder County Public Health's Partners for a Clean Environment (PACE) program to educate businesses about storm water protection. Offer services such as the PACE certification in the area of "Water Conservation and Quality" and programs to educate and work with key business sectors such as restaurants, retail operations, grocery stores, and property managers about "best practices" for storm water protection

LONG-TERM STRATEGIES

STRATEGY 4

Develop coordinated water quality or water protection strategies through the Consortium of Cities Water Stewardship Task Force

STRATEGY 5

Invest in water protection activities including best management practices such as low impact development and erosion control

STRATEGY 6

Devote resources toward reducing storm water runoff in the upper watersheds and non-urbanized areas of the county

STRATEGY 7

Maintain healthy forests in order to reduce wildland fire impacts to source waters

STRATEGY 8

Ensure responsible natural resource extraction—and transmission—in ways that protect riparian areas and water quality

STRATEGY 9

Engage in local source-water protection planning

STRATEGY 10

Sustain local stream flows and water quality with minimal reliance on west slope diversions

STRATEGY 11

Complete remediation of ranked abandoned mine sites

EXTERNAL

TARGET 7

Ensure that all onsite wastewater systems (OWS) are permitted and approved

SHORT-TERM STRATEGIES

STRATEGY 1

All onsite wastewater or septic system permit applications reviewed by Land Use staff; when needed refer to Public Health staff, who will evaluate the application before approving permit

STRATEGY 2

Review the status of all OWS as part of all home/residential dwelling sales transactions

STRATEGY 3

Conduct outreach to high-risk geographic areas likely to be impacted by aging and unapproved OWS

LONG-TERM STRATEGIES

STRATEGY 4

Maintain an active outreach and permitting process for unpermitted and unapproved OWS in Boulder County with the goal of having all OWS permitted by 2023

Boulder County is committed to not having any stream segments in the county listed on the state's "303-d" list of impaired or polluted waters by maintaining a viable Keep It Clean Partnership (KICP) and intergovernmental agreement for minimizing pollution impacts in surface waters.



LEADS THE WAY

COUNTY

Boulder County has made water conservation a priority in all landscaping and outdoor use. In 2008, county staff began an effort to replace the irrigation controllers that manage a majority of county manicured landscape areas with automatic controllers, which adjust water applied based on weather conditions and soil needs. “Smart” controllers such as these can reduce water usage by 25-60%.

In addition to smart sensors, we are upgrading irrigation system nozzles and sprayer heads, converting to drip irrigation in planter beds, increasing lawn aeration and using Xeriscape landscaping in low-traffic south-facing areas. These projects not only reduce water waste, but have been structured to train and employ Boulder County Youth Corps teams, reduce weeding and maintenance, improve soil health, reduce freezing and safety concerns, and minimize runoff.

Sustainability Success!

STORMWATER

Stormwater runoff occurs when rain or snowmelt flows over parking lots or streets. Stormwater can pick up trash, oil, dirt and other pollutants as it travels. These pollutants are then carried to the storm drainage system, which empties directly into local creeks and streams. This pollution is regulated by the Environmental Protection Agency. The communities around Boulder County decided to work together to protect our precious natural resources. The Keep it Clean Partnership (KICP) includes Boulder County and many area cities and towns. Local residents and school children are most familiar with KICP through its mascots: H₂O Jo and Flo and their resounding message “Keep it Clean, ‘cause We’re All Downstream” and tributary signs located near streams and roads throughout the county.

KICP works directly with members of our community to help educate people on how to best protect our stormwater runoff, and to assess the status of our waterways. In 2011, KICP visited 372 businesses or municipal facilities, provided school-based programs to more than 2,600 students in 127 classrooms, worked with 584 volunteers on water protection projects, and reached nearly 5,000 residents through 42 community and speaking events.

KICP also works closely with the Partners for a Clean Environment (PACE) program to visit auto repair shops, restaurants, retail manufacturers and other businesses to educate staff members and ensure they follow “best practices” to protect water quality. PACE and KICP promote those businesses that demonstrate work practices committed to protecting our local watershed.

POLICY PRIORITIES

Support the Clean Water Act Reauthorization and Efforts to Retain its Full Authority

Water is a precious resource, particularly in the semi-arid climate of Colorado, and the Clean Water Act is an important tool for protecting the quality of Colorado's water and environment. As a headwaters county, Boulder County enjoys relatively pristine water quality from the mountain source and feels it is incumbent upon us to maintain or improve that water quality for downstream users. Recent legislative attempts (e.g., H.R. 2011 in 2011) to curtail the authority of the Clean Water Act would unnecessarily undo decades of regulatory effectiveness that Coloradans rely on to protect the quality of our water, and would undermine 40 years of collective experience and collaboration of numerous non-governmental and governmental organizations in working effectively to support the Clean Water Act.

Support Disclosure of the Chemicals that Are Used in Hydraulic Fracturing

Hydraulic fracturing—also known as “fracking” and in common use by the oil and gas industry—is a process whereby fluids are injected at high pressure into underground rock formations to blast them open and increase the flow of fossil fuels. Chemicals typically used in the fracking process

include diesel fuel, benzene, industrial solvents, and other carcinogens and endocrine disrupters. Currently, the oil and gas industry is the only industry granted an exemption from complying with the Safe Drinking Water Act. Boulder County supports legislation to amend the Safe Drinking Water Act to require the oil and gas industry to disclose the chemicals that it uses in the hydraulic fracturing process.

Support Rules to Improve Colorado Oil and Gas Conservation Commission Oversight Over Hydraulic Fracturing

According to the Colorado Oil and Gas Conservation Commission (COGCC), nearly all of the more than 46,000 oil and gas wells operating in Colorado are fracked. Within this context, Boulder County supported the 2011 rulemaking that resulted in increased COGCC oversight of the fracking process. Requirements to substantiate trade secrets and disclose all chemicals and concentrations included in fracking fluid are positive steps forward.

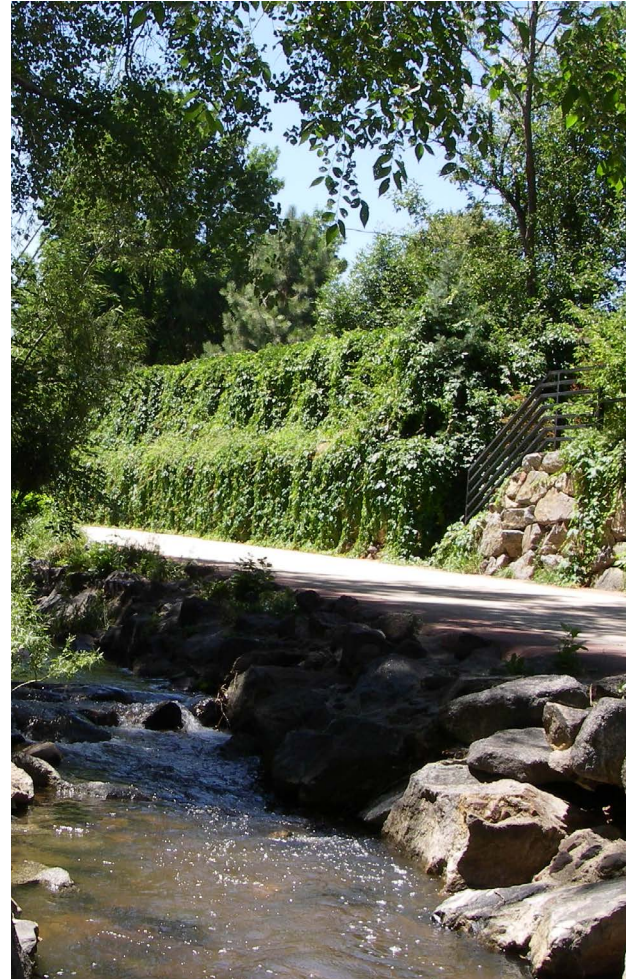
However, there remains room for improvement. Boulder County supports additions to the 2011 rules to require oil and gas well operators to collect baseline water samples in advance of initiating any hydraulic fracturing treatments; to require all hydraulic fracturing fluids include an inert marker that can be traced back to specific operators to assist

POLICY PRIORITIES CONT.

in identifying suspected or real groundwater contamination; and to clarify trade secret exemption criteria.

Support Legislation that Promotes the Efficient Utilization and Conservation of Water

In many respects, water is the lifeblood of Colorado's communities. The state's rivers and streams provide clean and plentiful drinking water for our cities and towns; are critical to supporting Colorado's state economy, from ranching to manufacturing to tourism; and afford essential habitat to our abundant fish and wildlife populations. Within this context, state and local government water policy must be designed to ensure the adoption of water supply and management decisions that are environmentally and economically sustainable in order to conserve, protect and restore Colorado's rivers. Boulder County supports state legislation and other efforts that will lead to the development of sustainable water resource management practices and create public policy incentives and regulations to achieve greater conservation and more efficient use of Colorado's water supply.





TAKE ACTION

You can take simple steps around your home, school or business to reduce water use. Learn more at **BoulderSavesWater.net**.

- Invite a local speaker to talk about water at your community, school or business meeting.
- Dispose of chemicals (such as motor oil, gasoline, antifreeze, solvents, paints, pesticides) and pharmaceutical products properly. Don't pour chemicals down the drain, onto the ground, or into the storm sewer—they end up in the water stream. Boulder County Public Health holds periodic, free pharmaceutical drop-off events.
- Take your car to a professional car wash instead of washing it in the driveway. If you do wash at home, prevent soap runoff from reaching the storm sewer, and use waterless soap or avoid soap that contains chlorine, chlorine bleach, phosphates, nitrates or ammonia.
- Use a minimal amount of fertilizer on lawns and gardens. Avoid using these products when a rain shower is expected.
- Use alternative pest management techniques instead of pesticides. Avoid using pesticides when a rain shower is expected.
- Water the lawn when it's dry rather than on a calendar schedule. Don't water the pavement!
- Use eco-friendly alternatives to household cleaners.

Check out **BoulderCountyWater.org** for dates of events and more water safety tips.