

BOULDER COUNTY | COLORADO

# ENVIRONMENTAL SUSTAINABILITY PLAN 2012



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# WELCOME *A Letter from the Boulder County Commissioners*



Cindy Domenico County Commissioner    Deb Gardner County Commissioner    Will Toor County Commissioner

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## Board of County Commissioners

November 26, 2012

For many years, residents have told us what they value about Boulder County through their ongoing efforts to make our community such a special place to live, work and play.

In an age of global environmental change and fast-paced development along the Front Range, we often hear from residents about the importance of preserving the county's future in a way that helps us sustain Boulder County's character and unique way of life. As a county government, we take these priorities to heart and work daily to further the county's long-term vision for well-planned urban development and the preservation of our rural and mountain communities.

As commissioners, we are deeply committed to environmental sustainability. We strive to lead by example by ensuring that our internal operations are low-impact, resourceful and efficient. To this end, Boulder County has been incorporating sustainable building practices in its own facilities by employing strategies for improving water efficiency, energy conservation, indoor air quality and the use of recycled materials. Voter-supported bonds have allowed us to invest in county building upgrades, including solar and biomass projects. We also encourage our employees to take sustainable actions in the workplace, including participating in alternative transportation, water and energy conservation, and zero waste options at all of our worksites.

In addition to our internal commitment to environmental sustainability, we have provided nationally recognized services for residents and businesses to reduce our environmental footprint. Our energy efficiency program, EnergySmart, is helping reduce greenhouse gas emissions by providing thousands of county businesses and residents with assistance in making energy efficient upgrades. Moreover, our zero waste infrastructure—including composting and recycling facilities—helps us manage our resources and create a less wasteful county. Finally, we have partnered with RTD and our municipalities to develop transit services like the BOLT and Extra Long JUMP that give more residents options for travel.

All of these efforts are made possible because of strong partnerships within the local community that have helped Boulder County become a leader in environmental sustainability. We are fortunate to have collaborative partnerships with all of our municipalities, the University of Colorado, our federal labs and the many private and nonprofit agencies that are so dedicated to moving our community forward. In addition to our local partnerships, we are fortunate to have many regional partners. Without regional cooperation, Boulder County would be unable to achieve the sustainability goals that reach beyond our county borders, such as climate, air quality and transportation. Indeed, there is much collaboration that goes into making environmental sustainability a top priority for Boulder County, and we will continue to build and strengthen these partnerships as we strive to improve the health and well-being of our residents, our economy and our planet.

By prioritizing environmental sustainability, we can achieve higher economic vitality in our communities, ensure cleaner air and water for the well-being and public health of our residents, and combat major environmental issues, such as climate change. By striving to become as environmentally sustainable as possible, we are supporting myriad human and environmental benefits for our county and beyond.

Sincerely,

Handwritten signatures of Cindy Domenico, Will Toor, and Deb Gardner.

Cindy Domenico, Will Toor and Deb Gardner  
Board of Boulder County Commissioners overseeing the development of the plan  
Summer/Fall 2012

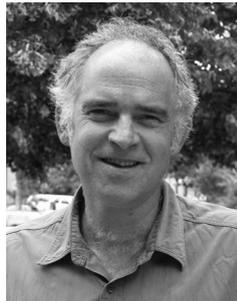
# SUSTAINABILITY PLANNING COMMITTEE

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## BOARD OF COUNTY COMMISSIONERS OVERSEEING DEVELOPMENT OF THE PLAN



Cindy Domenico



Will Toor



Deb Gardner



Ben Pearlman  
County Attorney and Former  
County Commissioner

Ron Diederichsen, *Administrative Services*

Beth Beckel, *Commissioners' Office*

Lisa Friend, *Commissioners' Office*

Barb Halpin, *Commissioners' Office*

Leslie Irwin, *Commissioners' Office*

Michelle Krezek, *Commissioners' Office*

Dan Rowland, *Commissioners' Office*

Mark Ruzzin, *Commissioners' Office*

Susie Strife, *Commissioners' Office*

Robin Bohannon, *Community Services*

Leisha Connors Bauer, *Community Services*

Susan Grutzmacher, *Housing & Human Services*

Dale Case, *Land Use*

Pete Fogg, *Land Use*

Doug Parker, *Land Use*

Garry Sanfaçon, *Land Use*

David Bell, *Parks & Open Space*

Therese Glowacki, *Parks & Open Space*

Al Hardy, *Parks & Open Space*

Rachel Arndt, *Public Health*

Lane Drager, *Public Health*

Joe Malinowski, *Public Health*

Pam Milmoie, *Public Health*

Mark Williams, *Public Health*

Scott McCarey, *Transportation*

Julie McKay, *Transportation*

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As part of our sustainability mission, Boulder County has much to celebrate in the area of environmental sustainability.

All of these achievements were made possible through our collaboration with our valued partners, including all Boulder County departments, our municipalities, our local environmental non-profits and the business community.

**Some of our recent successes include the following:**

#### **EnergySmart**

- Boulder County's energy efficiency service provides a one-stop shop for residents and business owners to make their homes and buildings more comfortable and energy efficient.
- EnergySmart is one of the most successful energy efficiency programs in the country. As of November 2012, the program has reached 6,300 homes and 2,000 businesses, supporting local jobs and stimulating more than \$10.7 million of investment in the county.

#### **BuildSmart**

- Boulder County's green building code, BuildSmart, has helped transform the construction industry. BuildSmart requires that newly constructed homes in Boulder County be far more efficient than the national building codes, and requires larger homes to be net-zero energy (producing as much energy through solar or wind as they use).

#### **Zero Waste**

- Boulder County is working to divert more construction and demolition materials from landfills by utilizing better measurement techniques and building relationships with the construction industry.
- Hazardous waste diversion from households is up 40% following the opening of the county's new Hazardous Materials Management Facility, the introduction of a new hazardous waste service for businesses, and new programs that support increased recycling of metals, electronics and computer hardware.
- We've created marketplaces and increased demand for compost produced and collected within Boulder County.
- We've built partnerships with waste collection operators to provide recycling at no cost to residents in unincorporated areas of Boulder County.

# WELCOME *A Note from the Boulder County Sustainability Coordinator*

## **Local Food & Agriculture**

- Boulder County is committed to the production of locally grown food for local markets by working with farmers and the natural foods industry to expand our local food system.
- We promote sustainable agricultural practices, including production methods that are healthy, respectful to workers, humane to animals, and provide profitable opportunities to farming communities with little environmental impact.
- Agricultural land on county open space properties dedicated to organic production or transitioning to organic production has increased dramatically—from less than 150 acres in 2005 to more than 1,500 acres in 2012.

## **Transportation**

- Boulder County continually strives to make it easier for people to reduce their greenhouse gas emissions and dependence on fossil fuels, while conserving natural resources and living an active, healthy lifestyle. To this end, we invest in programs that support bicycling, walking, carpooling and better public transportation through added transit routes and increased frequency.

- The Boulder County Transportation department facilitated the implementation of the EcoPass programs in Lyons and Nederland, for Boulder Valley School District employees, and for other businesses, resulting in over 4,000 EcoPasses and a subsequent 30% increase in bus ridership.
- Boulder County Transportation staff constructed over 80 miles of bicycle shoulders on county roads and collaborating with Parks and Open Space and other local partners, Boulder County constructed 43 miles of regional trails.



*Susie Strife*

Susie Strife, Sustainability Coordinator

# INTRODUCTION & PURPOSE

## AN ENVIRONMENTAL SUSTAINABILITY PLAN FOR ALL

The Environmental Sustainability Plan is intended to articulate Boulder County's vision to create a more environmentally sustainable community as well as provide a blueprint for achieving our collective environmental sustainability goals.

We expect this plan to offer perspective on where Boulder County has come from and where we are going. In addition, the plan will help employees of Boulder County collectively carry out the vision of environmental sustainability created by our commissioners and community.

The plan addresses county internal operations as well as the environmental services provided for county employees, residents and businesses. While the plan covers some linkages to social and economic sustainability, it is intentionally focused on the environment, as this will be the first step in helping the county achieve its broader environmental goals. In the near future, staff will work on developing a more integrated sustainability plan that includes greater attention to social and economic sustainability.

# INTRODUCTION & PURPOSE

This plan incorporates elements from state and federal legislative agendas as well as numerous Boulder County plans. The intent is not to reinvent the wheel, but to extract, integrate and activate the environmentally focused pieces of Boulder County's existing plans and processes, such as those listed below:

**Boulder County Comprehensive Plan:** The Boulder County Comprehensive Plan helps guide decisions on future land uses in a coordinated and responsible manner. [BoulderCounty.org/property/build/pages/bccp.aspx](https://bouldercounty.org/property/build/pages/bccp.aspx)

**Climate Change Preparedness Plan:** This plan is designed to help local residents and communities better prepare for changing environmental conditions. [BoulderCounty.org/sustainability/programs/pages/climatechangepreparedness-plan.aspx](https://bouldercounty.org/sustainability/programs/pages/climatechangepreparedness-plan.aspx)

**Human Services Strategic Plan:** An inclusive and broad collaborative process led to development of this a plan, which envisions a dynamic, accessible, coordinated, community-wide human service delivery system. [BuildingLivableCommunities.org/index2.html](https://buildinglivablecommunities.org/index2.html)

**Parks and Open Space Cropland Policy:** This policy sets forth the practices that define sustainable agriculture on Boulder County Open Space lands. [BoulderCounty.org/doc/parks/croppolicy.pdf](https://bouldercounty.org/doc/parks/croppolicy.pdf)

**Parks and Open Space Water Policy:** This policy is designed to provide guidance on the use of water owned and managed by Boulder County, principally on agricultural lands. [BoulderCounty.org/doc/parks/waterpolicy.pdf](https://bouldercounty.org/doc/parks/waterpolicy.pdf)

**Public Health Improvement Plan:** A community process is leading development of this plan, which will guide, track, and report progress in three health areas: improving mental health, reducing substance abuse, and encouraging healthy eating and active living. [BoulderCounty.org/dept/public-health/pages/phiphome.aspx](https://bouldercounty.org/dept/public-health/pages/phiphome.aspx)

**Sustainable Energy Plan:** This plan, requested by the Boulder County Consortium of Cities, created a framework for local and regional action on energy sustainability. Recommended actions are designed to reduce the county's impact on global climate change, while realizing significant cost savings through increased energy efficiency. [BoulderCounty.org/sustainability/programs/pages/sustainableenergyplan.aspx](https://bouldercounty.org/sustainability/programs/pages/sustainableenergyplan.aspx)

**Transportation Master Plan:** This plan describes Boulder County's multimodal transportation system and how it will develop over the next 25 years. [BoulderCounty.org/Roads/Plans/Pages/TransportationmasterPlan.aspx](https://bouldercounty.org/Roads/Plans/Pages/TransportationmasterPlan.aspx)

**Zero Waste Action Plan:** Zero waste advocates for eliminating waste while viewing any remaining "discards" as important resources to be returned to the marketplace through reducing and reusing, recycling or composting. This plan recommends priority strategies to guide Boulder County's zero waste actions. [BoulderCounty.org/sustainability/programs/pages/zerowaste.aspx](https://bouldercounty.org/sustainability/programs/pages/zerowaste.aspx)

# INTRODUCTION & PURPOSE

**B**oulder County's leaders and employees have long held a commitment to stewardship of our land, environment and community. The Environmental Sustainability Plan provides guidance on how Boulder County can become a healthier and more sustainable place to live, work and play, and is meant to provide direction for Boulder County's environmental priorities. The goals, targets and strategies outlined in the plan are not meant to be prescriptive, but rather to lay out a series of priorities and directions that will help Boulder County, as a community and as a government agency, become more environmentally sustainable.

This plan uses a "systems-wide" approach, taking careful account of the numerous and diverse components that provide the foundations for the quality of our environmental, economic and social condition. The list is large: agricultural viability, forest health, energy production and use, resource consumption and preservation, decent housing, transportation, air and water quality, equitable educational and employment opportunities, meaningful public participation, and so on. While this plan attempts to highlight the linkages between social, economic and environmental sustainability, it does not presume to cover all of these factors and focuses on environmental sustainability as a starting place to build these larger connections. The distinct focus on environmental sustainability is important, as this is the first effort to outline a blueprint for Boulder County's internal commitment to achieving its environmental goals.

In addition, other strategic plans such as Boulder County's Human Services Strategic Plan specifically address social sustainability. Prioritizing and implementing the strategies

in this plan will involve economic analyses to ensure the Boulder County community, our local economy and the environment will benefit.

This document will evolve as new strategies and technologies are developed, and unforeseen events challenge us to modify our responses. The plan, therefore, is a first step for the continuing inclusion of new focus areas, policies and action plans relating to sustainability as they are identified, agreed to, and developed through the planning process.

The Environmental Sustainability Plan was developed with the assistance of a planning committee of more than 25 Boulder County employees from different departments. The cross-pollination of ideas, insight and teamwork exemplifies Boulder County's dedication to working collaboratively to ensure that every aspect of sustainability is incorporated and that we are accountable for implementing these goals together in our work at the county. With BOCC's vision and guidance, the Sustainability Planning Committee worked hard to ensure that Boulder County's internal and external sustainability goals illuminate the county's commitment to environmental sustainability.

The Boulder County Environmental Sustainability Plan was developed through a series of strategic planning efforts, leveraging other countywide plans that have undergone rigorous public engagement and input. The intent of this plan is not to reinvent the wheel, but to extract, integrate and activate the environmentally focused pieces of the county's existing plans. This plan incorporates elements from state and federal legislative agendas as well as numerous Boulder County plans including the Sustainable Energy Plan, the Boulder County

# INTRODUCTION & PURPOSE

Comprehensive Plan, the Climate Change Adaptation Plan, the Open Space Strategic Plan, the Public Health Improvement Plan, the Transportation Master Plan and the Zero Waste Action Plan.

Given all of the work and effort that has gone into developing a set of guiding environmental sustainability goals, the Sustainability Planning Committee felt that public input for the plan would be best accomplished after all of its components were woven together in a more complete and digestible format. The next phase of the environmental sustainability planning process is to solicit feedback and insight from the greater public, key stakeholders and experts on what is missing from the plan and how to best carry out the

strategies outlined. We also hope this plan acts as a launching point to help set communitywide environmental priorities and helps us develop shared resources to achieve more regional environmental sustainability goals.



# THE PLAN STRUCTURE

The plan is broken into nine key environmental sustainability categories, each containing a brief introduction and vision created by the Sustainability Planning Committee and the Boulder County Commissioners. Each category contains a number of internal and external goals (“targets”), and a listing of potential strategies identified to reach those goals. Internal targets refer to goals achievable by and for internal county operations and staff, while external targets refer to the environmental services and programs the county provides to the public. Identified strategies to achieve the targets range in ease of execution and expected timeline, with short-term strategies expected to be accomplished in one-to-five years, and long-term goals requiring five-plus years. Each section concludes with policy priorities and actions that employees, residents and businesses can take to positively impact Boulder County.

More specific timeframes, funding sources, implementation leaders and/or partners will be addressed in an implementation plan, which will guide Boulder County employees in executing the strategies in the Environmental Sustainability Plan.

## Environmental Sustainability Categories

1. Air Quality
2. Climate
3. Ecological Health
4. Energy & Buildings
5. Health & Wellness
6. Local Food & Agriculture
7. Transportation
8. Water
9. Zero Waste

## MISSION STATEMENT

### SUSTAINABILITY

To ensure that Boulder County's operations, programs, services, regulations and decision-making processes reflect our deep commitment to environmental, social and economic sustainability, while building strong local partnerships to help the broader community and region become healthier and more sustainable.



# DEFINITION OF SUSTAINABILITY

**W**ithin this plan, “sustainability” means the use, development and protection of resources in a way that enables Boulder County residents to meet their needs and maintain a high quality of life, without compromising the ability of future residents to do the same, while ensuring protection and enhancement of naturally occurring ecosystems and their native species populations. In this context, “resources” include land, air and water along with the inherent value of the natural resources, biodiversity and life-supporting functions associated with them; energy and materials for development and habitation; the essential rural, low-density character of the unincorporated county; the special historic, cultural and geographic composition of distinct rural communities within the county; the diversity of economic activities and opportunities available to individuals; and the people who continue to shape our developed and natural landscapes.

In addition, it is important to call attention to the linkages between environmental, social and economic

sustainability. For example, the county’s sustainability practices seek to support and enhance the diversity of economic activities, such as viable local agriculture, green jobs creation and multimodal transportation, as well as to support the well-being of our residents by encouraging healthy and active lifestyles.

The strategies set out to achieve the plan’s targets are actions that support, maintain, conserve and enhance the environmental, economic and social systems on which we depend. Achieving sustainability may demand substantial departures from past and present actions, as well as a fundamental commitment to conserving finite resources. Therefore, sustainability requires a coordinated approach to planning and public policy that involves public participation. Success depends on the widespread understanding of the critical relationship between people and their environment, an appreciation of the interrelationships between the systems that sustain human existence, and the will to make necessary changes. We not only have a relationship with and depend on the planet, but we are also a part of it.



# SUSTAINABILITY MILESTONES

Boulder County is deeply committed to environmental sustainability. The following timeline highlights key moments that have defined this longstanding commitment.

## **1967**

- Boulder County Commissioners appoint members to the first Parks and Open Space Advisory Committee (POSAC).

## **1974–1978**

- County staff works closely with various stakeholders and the public in developing the original Boulder County Comprehensive Plan (BCCP). Adopted in 1978, the BCCP was designed to shape the county's long-term efforts to channel growth to municipalities, protect agriculture lands from urban development, sustain agricultural practices, and preserve the character, environment and natural resources of our unincorporated rural areas.

## **1975**

- Boulder County establishes the Parks and Open Space Department.
- Boulder County purchases Betasso Preserve, the first large piece of land officially designated as open space.

## **1978–continuing**

- The vision of the BCCP has been and continues to be realized through a variety of measures, including collaboration between Boulder County and its municipalities in developing intergovernmental agreements (IGAs), defining discrete urban and rural planning areas, acquiring and managing lands for open space, crafting innovative Transferable Development Rights

and Transfer Development Credits regulations, and instituting historic preservation/restoration programs, just to name a few.

## **1982**

- Boulder County Nature Association is founded in cooperation with Boulder County Parks and Open Space.

## **1993**

- Site Plan Review regulations are adopted to provide standards and criteria for minimizing the physical and visual impact of buildings on natural resources, wildlife habitat and other nearby landscape features.

- The third attempt for an open space sales tax (0.25%) passes.

- Boulder County Public Health and City of Boulder start Partners for Clean Environment (PACE) for businesses.

## **1994**

- The County Commissioners adopt the Transferable Development Rights amendments to the Land Use Code, enabling the movement of development rights off important and productive agricultural, environmental, and habitat lands to locations more suitable for development.

## **1994 – 1997**

- Boulder County joins four other Front Range counties in a unique cooperative initiative to plan for the protection of important resources and visually prominent lands along the Mountain Backdrop.

## **1995**

- A new map and set of policies identifying Environmental Conservation Areas (ECAs) are adopted into the Boulder County

# SUSTAINABILITY MILESTONES

Comprehensive Plan. ECAs represent large contiguous swaths of land (from 3,000 to more than 35,000 acres) across the county.

## 1999

- Voters extend .25% open space sales tax for 10 more years.

## 2000

- Boulder Parks and Open Space preserve 49,050 acres with 84 miles of trails on 25 properties.
- Voters approve an additional .10% sales tax for open space.
- Through the Boulder Valley Comprehensive Plan update, new policies address moderating commuting trips into the Boulder Valley and the impacts associated with commuting, such as fossil fuel consumption, air quality degradation, congestion, and time spent away from family/community.

## 2001

- Voters approve a .1% sales tax to fund implementation of multimodal transportation projects, including construction of bicycle, transit and regional trails.
- Surveys show that more than 1,000,000 visitors come to open space annually.

## 2004 – ongoing

- The county teams up with a diverse group of private, local, state and federal stakeholders in establishing the Front Range Roundtable to develop a long-term vision for achieving fire risk mitigation and forest health/restoration goals in the 10 counties comprising Colorado's Front Range.

## 2005

- The Boulder County Commissioners (BOCC) formalize

the county's commitment to environmental sustainability by launching Boulder County's Sustainability Initiative, which involves the teamwork and expertise of all county employees working cooperatively to implement environmental practices and policies that promote a sustainable work environment and community.

- The BOCC adopts two resolutions, The Zero Waste Resolution and the Sustainable Energy Resolution, stating the county's commitment to energy and resource conservation, waste reduction, pollution prevention and other sustainable practices. Learn more at: [BoulderCounty.org/Sustainability/BC/Pages/Bcsi.aspx](http://BoulderCounty.org/Sustainability/BC/Pages/Bcsi.aspx)

## 2007

- The core vision of the BCCP prompts commissioners and staff to add a Sustainability Element to the plan. This new section outlines sustainability goals and policies for Boulder County.
- Voters approve 15-year extension of 1% sales tax for transportation.
- Voters approve a .10% sales tax extension for open space.

## 2008

- Boulder County launches BuildSmart, a green building code for new residential construction. To learn more about BuildSmart, please visit: [BoulderCounty.org/Property/Build/Pages/BuildSmartHome.aspx](http://BoulderCounty.org/Property/Build/Pages/BuildSmartHome.aspx)
- Voters approve a ballot issue authorizing the ClimateSmart Loan Program.
- Boulder County begins power purchase agreements to install solar panels on county buildings.

# SUSTAINABILITY MILESTONES

- Boulder County adopts a Transferable Development Credits (TDC) program to help offset the impacts of larger home construction in the county, preserve the rural character of the county, maintain a diversity of housing stock for county residents, and provide owners of smaller homes an economic incentive to maintain their existing dwellings at modest sizes. Learn more about TDC at: <http://www.bouldercounty.org/property/build/pages/tdcfaqpolicies.aspx>

## 2009

- The Transportation Element of the BCCP is substantially revised and refocused, highlighting the need to develop policies and practices that create a sustainable transportation system based on the principle that the system, in its many forms and modes, is intended to move people and not just vehicles.
- Boulder County launches the nationally groundbreaking ClimateSmart™ Loan Program, funding hundreds of residential renewable-energy and energy-efficiency projects throughout Boulder County.
- Voters approve bonding authority allowing Boulder County to issue \$6 million of qualified energy conservation bonds to make deep energy retrofits to county buildings.

## 2010

- Boulder County Transportation develops the Multimodal Transportation Standards, which guide the sustainable development of public and private transportation facilities and transportation-related requirements for development within unincorporated Boulder County.
- Voters approve an additional .15% sales tax for open space.

## 2011

- Boulder County launches EnergySmart, an energy efficiency service to help homes and businesses across Boulder County become more comfortable and energy efficient. Learn more at [EnergySmartYes.com](http://EnergySmartYes.com)

## 2012

- Boulder County staff updates the BCCP, adding the Guiding Principles to the plan, approved by the planning commission on January 18, 2012.
- BOCC adopt the Climate Change Preparedness Plan to help local residents and communities better prepare for changing environmental conditions. To view the plan, visit: [BoulderCounty.org/GoGreen/CCPP.pdf](http://BoulderCounty.org/GoGreen/CCPP.pdf)
- The BOCC adopt the first County Transportation Master Plan (TMP), which describes Boulder County's multimodal transportation system and how it will develop over the next 25 years. To view the plan, visit: [BoulderCounty.org/Roads/Plans/Pages/TransportationmasterPlan.aspx](http://BoulderCounty.org/Roads/Plans/Pages/TransportationmasterPlan.aspx)
- Boulder County launches the first community-wide EcoPass program in Lyons and Nederland.
- Boulder County launches the Energy Loan Program in partnership with Elevations Credit Union.

# ENVIRONMENTAL SUSTAINABILITY GOALS

The following goals guide each section of the plan.

These goals represent Boulder County's environmental sustainability vision.

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## AIR QUALITY

Ensure clean, clear and healthy air for current and future generations

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## CLIMATE

Achieve carbon neutrality and become more resilient to the potential effects of climate change

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## ECOLOGICAL HEALTH

Ensure healthy and vibrant ecosystems that sustain all naturally occurring species, along with our human population

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## ENERGY & BUILDINGS

Reduce energy consumption, increase the use of clean energy and transition away from fossil fuels

Move toward net-zero energy use in all Boulder County buildings and develop building codes and policies that promote energy efficiency in new and existing buildings

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## HEALTH & WELLNESS

Work to protect, promote and enhance the health and well-being of all people and the environment in Boulder County

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## LOCAL FOOD & AGRICULTURE

Ensure a sustainable, safe and healthy food supply that is accessible to all and supported by our community

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## TRANSPORTATION

Encourage environmentally sustainable transportation choices and infrastructure, and support healthy, active lifestyles for all Boulder County residents

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## WATER

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

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## ZERO WASTE

Become zero waste and manage resources responsibly and effectively

# AIR QUALITY



# AIR QUALITY

## INTRODUCTION

Outdoor air quality is a serious concern in Boulder County. Boulder County is designated as part of the nine-county Denver Metro area that exceeds the Environmental Protection Agency's (EPA) health standards for ozone. Impacts from increased ozone, and the pollutants that form ozone, lead to or cause poor air quality, decreased visibility, damage to crops and increased acid rain in Rocky Mountain National Park. Under the Clean Air Act, the EPA establishes air quality standards to protect public health, with special attention to the health of "sensitive" populations (children under 10 years, adults 65+, and asthmatics). The EPA also sets limits to protect public welfare, which include protection against decreased visibility and crop damage. They achieve this through national standards for pollutants, such as ozone, nitrogen oxides and particulate matter. In addition, the EPA is now taking common sense steps under the Clean Air Act to limit carbon pollution from new power plants and to improve vehicle fuel efficiency.

Regulation of greenhouse gas emissions is critical given the overwhelming scientific consensus that greenhouse gases contribute to climate change. The potential local impacts of climate change could bring higher temperatures and fewer days with precipitation, which likely will increase the frequency and severity of heat waves, episodes of poor outdoor air quality, wildfire risks and associated human health impacts. Therefore, Boulder County will face a new set of challenges, including the expanding vulnerability of our natural resources.

Boulder County Public Health is funded in part by the Colorado Department of Public Health and Environment (CDPHE) and supports improving air quality in the following ways:

- Investigating permitted businesses to determine compliance with control and reporting requirements
- Supporting enforcement actions with CDPHE
- Collecting and submitting air sample data and maintaining monitors
- Responding to outdoor air complaints
- Completing required training and certification

Boulder County Public Health also promotes air quality through voluntary programs, such as the Clean Air Challenge Contest, which encourages residents to reduce their emissions from vehicle use.

Boulder County works to improve air quality within indoor environments from pollutants such as lead, asbestos, mold and radon. Through education and outreach, Boulder County Public Health works with homeowners, tenants and property owners to protect our air, our homes and our health, using various voluntary and regulatory means.

## AIR QUALITY GOAL

Ensure clean, clear and healthy air for current and future generations

### EXTERNAL

#### TARGET 1

Meet federal outdoor air quality standards for ozone in Boulder County

### SHORT-TERM STRATEGIES

#### STRATEGY 1

Investigate and support enforcement of air pollution requirements

#### STRATEGY 2

Diagnose and investigate emission sources, and monitor air quality conditions

#### STRATEGY 3

Conduct voluntary programs to educate, empower and mobilize action to reduce ozone-forming and greenhouse gas (GHG) emissions

#### STRATEGY 4

Promote the use of sustainable and lower-emitting fuels and encourage the adoption of strategies that reduce vehicle miles traveled in state regulations and in state implementation plans

#### STRATEGY 5

Support the adoption of continuously increasing auto fuel-efficiency standards

#### STRATEGY 6

Encourage the adoption of local, state and federal regulations and policies that reduce the impacts of oil and gas resource extraction

#### STRATEGY 7

Support the adoption of continuously increasing renewable energy standards

#### STRATEGY 8

Actively participate in the development of protective air quality policies and plans

#### STRATEGY 9

Promote the use of locally sourced biofuels derived from local waste oil within the Boulder County vehicle fleet

*> Also see "Energy & Buildings" and "Transportation" sections for strategies related to greenhouse gas emissions-reduction strategies for improving outdoor air quality*

Boulder County is committed to conducting initiatives to educate and empower residents to take actions that reduce ozone-forming and greenhouse gas emissions.

## EXTERNAL

### TARGET 2

Empower residents to identify indoor air quality issues and maintain healthy indoor environments

## SHORT-TERM STRATEGIES

### STRATEGY 1

Inform, educate and empower residents and property owners to address indoor air quality issues associated with mold, moisture and asbestos

### STRATEGY 2

Conduct education and outreach to Realtors, schools and residents (particularly low-income) to increase radon awareness in Boulder County

### STRATEGY 3

Promote radon testing and educate residents about proper installation of radon reduction systems

### STRATEGY 4

Encourage radon mitigation systems in new homes through building codes and at the point of sale

### STRATEGY 5

Educate families about the need for lead testing and home lead awareness and safety

### STRATEGY 6

Work with families to reduce elevated blood lead levels in children

### STRATEGY 7

Educate residents about volatile organic compounds (VOCs) and what people can do to limit their exposure to indoor air toxins, especially through green building practices

*> For a full list of strategies and descriptions of these strategies, please see Boulder County's Public Health website: [BoulderCountyAir.org](http://BoulderCountyAir.org)*

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Boulder County is committed to radon education and outreach to increase radon awareness of Boulder County Realtors, schools and residents. The county will particularly focus education efforts in low-income populations.

BOULDER

LEADS THE WAY

COUNTY

Vehicle emissions are the second largest source of ozone-forming air pollution in Colorado's Front Range. This is why Boulder County and 36 Commuting Solutions teamed up to bolster transit ridership in Louisville, Superior and along the Diagonal Highway by increasing participation in the Regional Transportation District's (RTD) EcoPass program. EcoPass is an annual transit pass purchased by an employer as a benefit for all full-time employees. EcoPass provides unlimited rides on all Local, Express and Regional bus and light rail service operated by RTD. An employee with an EcoPass is nearly nine times more likely to have commuted by bus in the last year than an employee without an EcoPass, according to a 2005 Boulder Valley Employee Survey conducted by the City of Boulder. The program aims to boost transit ridership in Boulder County while relieving traffic congestion and reducing greenhouse gas emissions. "Since the program launched in January 2008, more than 7,000 employees and residents have acquired an EcoPass," said Boulder County Alternative Transportation Coordinator, Scott McCarey. "EcoPass has economic as well as environmental benefits," said Boulder County Transportation Director George Gerstle. "In a tough economy, a great way to save money is to reduce commuting costs. By riding the bus, people save on fuel and vehicle maintenance costs all while improving the environment." Each year, this program saves approximately 455,000 lbs of CO<sub>2</sub>, making it an effective way to reduce our countywide greenhouse gas emissions.

## Sustainability Challenge

### **RADON**

Radon is the second leading cause of lung cancer, after smoking. Boulder County has high levels of naturally occurring radon in our soils. Testing for and properly reducing radon levels in homes is easy and affordable. Boulder County Public Health has delivered nearly 300 radon test kits in partnership with EnergySmart and evaluates home radon reductions systems each year.

BOULDER

LEADS THE WAY

COUNTY

Boulder County Public Health has participated in several rule-making proceedings before the Air Quality Control Commission supporting a coalition of local governments. With the City and County of Denver, City of Fort Collins, City of Boulder, and many local government coalition members, we have had several successes, including:

- Colorado adopted a regulation controlling mercury emissions from coal-fired power plants at least five years before federal rules go into effect
- Colorado now has a regulation in place that will phase out the use of coal-fired power plants along the Front Range, reducing smog and improving visibility in the mountains
- Colorado has regulations controlling emissions from oil and gas operations to reduce harmful smog, but these regulations need to be strengthened.

Boulder County continues to support emission controls to reduce the air quality impacts of oil and gas development through participation in federal and state rulemaking and the proposal of local controls. Boulder County is working with our partners at the University of Colorado to map out an air quality monitoring program for the county, and with the Regional Air Quality Commission to bring in additional monitoring resources, such as an infra-red camera, to view potentially harmful air pollutants from oil and gas operation sites.

## Sustainability Challenge

### VEHICLE EMISSIONS

Vehicle emissions are the second largest source of ozone-forming air pollution.

Since the summer of 2004, 1,200 people have participated in the Boulder County Clean Air Challenge Contest, protecting air quality by using public transportation and bikeways to get around. Collectively, they have offset nearly 680,000 vehicle miles, 30,000 gallons of gasoline, 2,900 pounds of ozone-forming pollutants, and 340 tons of greenhouse gas emissions. The contest provides prizes and recognition for these great efforts. Join the fun! Leave your car at home and win at

**[BoulderCountyAir.org](http://BoulderCountyAir.org)**

## Sustainability Challenge

### LEAD

Lead poisoning continues to be the number one preventable environmental health threat to children under the age of six. Lead commonly is found in paint or soil. It can get into a child's system when particles are inhaled or eaten on a regular basis. High levels of lead may cause delayed brain development, shortened attention span, and hearing and learning problems. In Boulder County, 75% of children tested had some detectable amounts of lead in their blood and 4% had blood-elevated lead levels. Ask your doctor about a blood-lead test for your child. Boulder County Public Health has analyzed state lead tests and conducts home investigations when testing indicates a problem.

## POLICY PRIORITIES

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*Support State Regulation and Other Policy Means to Protect Air Quality*

Boulder County, as part of the North Front Range Denver Metropolitan Nonattainment Area, currently exceeds national air quality standards for ozone. Poor air quality has significant public health and environmental impacts, from increasing doctor visits and hospital admissions to compromising the unique value of our parks and open space lands through loss of visibility and impacts to wildlife. Boulder County supports state legislative, regulatory and other efforts to ensure public and environmental health by reducing the emissions of harmful pollutants.

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*Support Authority Funding of The Environmental Protection Agency to Enforce the Clean Air Act*

The Clean Air Act is the law that defines the Environmental Protection Agency's (EPA) responsibilities for protecting and improving the nation's air quality and the stratospheric ozone layer, including important regulatory powers over greenhouse gas emissions and air pollution. Boulder County supports adequately funding and empowering the EPA to sufficiently protect public health and the common

good by enforcing the Clean Air Act to improve and maintain high standards of air quality.

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*Support Legislation to Require Radon Mitigation Systems in New Homes, Residential Construction and Existing Homes When Resold*

Including radon mitigation requirements in building codes and when homes are resold would help decrease potential health risks associated with residential exposures to radon, which is the second leading cause of lung cancer in the United States.

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*Support State and Federal Legislation and Other Policy Approaches to Address the Air Quality Impacts Associated with Oil and Gas Operations*

Oil and gas operations can cause air toxin and volatile organic compound emissions close to population centers. Boulder County supports legislative efforts to reduce the air quality impacts of oil and gas exploration and development.

## TAKE ACTION

Our cars, lawn and garden equipment, and other products (e.g., paints and cleaners) are all culprits in producing ozone pollution. The fewer ozone-causing emissions produced on hot, still summer days, the better. You can do the following to help take care of our summer air.

- Fuel your vehicles in the evening so fume vapors can't "cook" into ozone.
- Keep your car tuned—routine maintenance helps your car run efficiently.
- Keep tires inflated—it reduces pollution and saves you money.
- Avoid idling—restarting your engine uses fuel equal to six seconds of idling.

- Use an electric-powered lawn mower; mow in the evening, if you're using a gasoline powered mower.
- If you are purchasing a car, choose one that is fuel efficient.
- Choose low greenhouse gas-emitting travel options rather than driving alone, for example walk, bike, telecommute or ride the bus—leave the car at home.

Learn more at [OzoneAware.org](https://www.OzoneAware.org), and take the Clean Air Challenge at [BoulderCountyAir.org](https://www.BoulderCountyAir.org)

# CLIMATE



# CLIMATE

## INTRODUCTION

Boulder County strives to conserve energy and use renewable energy sources by promoting programs that help the entire community work toward energy efficiency and renewable energy use.

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In 2005, Boulder County joined more than 200 cities and counties within the United States in making a commitment to address global climate change at the local level.

Non-renewable sources of energy impact land, water and air across geographical boundaries. Locally, Colorado generates most of its electricity from coal-fired power plants, which are one of the largest sources of air pollution in Colorado and in Boulder County. Burning coal is harmful to human and ecological health; it adds greenhouse gases to our atmosphere, contributing to climate change.

In 2005, Boulder County joined more than 200 cities and counties within the United States in making a commitment to address global climate change at the local level by passing a resolution to adopt a Sustainable Energy Plan (SEP) for Boulder County to achieve aggressive short- and long-term greenhouse gas emissions-reduction goals.

Boulder County began with a greenhouse gas (GHG) inventory to assess current and historical sources of emissions. Based on this data, analysts drafted a Greenhouse Gas Mitigation Report, which analyzed what efforts would be needed to meet the commissioners' goal of a 7% reduction below 1990 levels by 2012. The analysis informs us that achieving this goal will be a significant challenge.

The SEP, therefore, identified 20 key recommended actions that will lead to meaningful progress toward a sustainable energy future. These strategies were selected based on their emissions-reductions potential, their cost effectiveness, and an effort to ensure equitable contributions across the main GHG contributing sectors and address any social equity concerns. These key strategies, if implemented, will result in the county successfully reducing emissions 40% below 2005 levels by the year 2020. The Boulder County Commissioners—and the cities of Boulder, Lafayette, Longmont, Louisville, Lyons, Nederland and Superior—approved adoption of the plan in January 2008.

The county continues to work cooperatively with our local governmental entities to implement change within Boulder County. To date, the SEP has helped Boulder County and its partner communities achieve energy savings through lighting installations, improved heating systems, energy advising services, rebates and low-interest financing for energy efficiency upgrades, and green building codes.

## INTRO CONT.

In partnership with our local municipalities and the Department of Local Affairs, the following initiatives have been accomplished:

- The Boulder County Jail installed a biomass heating system in 2010 that uses wood chips to boil water for heating.
- The University of Colorado at Boulder and the City of Boulder installed solar-powered LED lights on a multi-use path. The solar-powered lights use approximately 3,000 fewer kilowatt hours annually than traditional path lights.
- The City of Lafayette installed solar lights in the municipal parking lot next to City Hall.
- The City of Louisville upgraded climate control at its recreation center, which has since resulted in a significant decrease in electricity consumption.
- The Town of Lyons installed energy-efficient lighting on Main Street.
- The Town of Superior replaced parking lot lights with LED fixtures.
- The county's "BuildSmart" regulations were extended to cover new commercial construction and remodeling.
- Through the county's Property Assessed Clean Energy (PACE) program, Boulder County funded 612 loans to complete approximately \$10 million in energy efficiency projects.
- Boulder County, in partnership with Elevations Credit Union, created the Energy Loans Program, a \$35.5 million revolving loan program for energy efficiency and renewable energy measures.
- Boulder County supported the solar gardens legislation at the state level, which will bring more renewable energy to Colorado.
- The county's Longhorn Facility was Boulder County's first net-zero energy building.
- The Board of County Commissioners directed that the new Longmont Human Services building be both LEED Platinum and net zero.

# CLIMATE

## INTRO CONT.

Beyond initiatives to mitigate climate change, Boulder County has become one of the first communities in the state to adopt a Climate Change Preparedness Plan to better adapt to the local impacts of climate change.

The plan complements existing approaches by identifying preparedness gaps where the county might be vulnerable to climate extremes. Four sectors—Emergency Preparedness,

Public Health, Water Resources, and Agricultural and Natural Resources—are strengthened by the plan's 31 policy recommendations. The Climate Change Preparedness Plan is designed to help protect public health and safety in the event of climate-related floods, fires, drought or extreme heat.



## CLIMATE GOAL

Achieve carbon neutrality and become more resilient to the potential effects of climate change

## INTERNAL

## TARGET 1

Achieve carbon neutrality for Boulder County operations

## SHORT-TERM STRATEGIES

*Green Building Related Strategies***STRATEGY 1**

Require that all existing Boulder County buildings be eligible for the ENERGY STAR label by 2014 and to achieve a minimum score of 85 (see "Energy & Buildings" for more detail)

**STRATEGY 2**

All new Boulder County buildings strive for a 48% improvement in building performance from baseline as described in ANSI (American National Standards Institute), ASHRAE (American Society of Heating, Refrigerating and Air Conditioning Engineers), and IESNA (Illuminating Engineering Society of North America) Standard 90 1-2007 (see "Energy & Buildings" section for more detail)

**STRATEGY 3**

All projects implemented in existing Boulder County buildings contribute to improving total building energy consumption by 44% as compared to baseline (see "Energy & Buildings" section for more detail)

**STRATEGY 4**

Install onsite solar photovoltaic (PV) systems to power county-owned buildings

**STRATEGY 5**

Expand purchase of renewable energy from local utilities to achieve carbon neutrality by 2020

**STRATEGY 6**

Create an internal carbon neutrality task force dedicated to making internal county operations carbon neutral by 2020

**STRATEGY 7**

Implement controls and policies to limit idling of municipal and county vehicles

**STRATEGY 8**

Establish projects and programs to reduce the absolute number of employee commute trips (see "Transportation" section for more details)

**STRATEGY 9**

Develop short-term and long-term conversion plans for the county vehicle fleet to implement new vehicle technologies as they become available for testing and use

**STRATEGY 10**

Promote the use of sustainable, locally sourced biofuels derived from local waste oil within the Boulder County vehicle fleet

## INTERNAL

### TARGET 1 CONT.

Achieve carbon neutrality for Boulder County operations

## SHORT-TERM STRATEGIES CONT.

### Land Related Strategies

#### STRATEGY 11

Conduct a carbon inventory of county lands, particularly Parks and Open Space land management, including restoration to native plants, forest management and agricultural practices

#### STRATEGY 12

Set goals for greenhouse gas (GHG) emissions-saving land management actions

#### STRATEGY 13

Expand land management actions that sequester the most GHG emissions

#### STRATEGY 14

Fund biochar research on county forested and agricultural land to determine the carbon sequestration benefits of this technology

#### STRATEGY 15

Expand wind or solar energy for on-farm electrical needs on Parks and Open Space-owned agricultural land

*>For more information on other emissions reduction strategies, please see the "Air Quality," "Energy & Buildings" and "Transportation" sections of this plan.*

## EXTERNAL

### TARGET 1

Implement key recommendations from the county-wide Climate Change Preparedness Plan

## SHORT-TERM STRATEGIES

#### STRATEGY 1

Assign a point person to coordinate climate adaptation activities and determine how to measure progress on various elements of the county's climate adaptation efforts

#### STRATEGY 2

Establish a permanent Climate Adaptation Planning Committee, which would serve as a multi-agency work group to coordinate resource management strategies across jurisdictional boundaries and provide a forum for community dialogue on water and climate

#### STRATEGY 3

Lead and continue emergency response planning for Boulder County

#### STRATEGY 4

Continue to enhance the flood detection network to anticipate, communicate and monitor flood areas within Boulder County

#### STRATEGY 5

Conduct an extreme heat impacts and extreme heat program needs assessment

## EXTERNAL

### TARGET 1 CONT.

Implement key recommendations from the county-wide Climate Change Preparedness Plan

## EXTERNAL

### TARGET 1 CONT.

Implement key recommendations from the county Climate Change Preparedness Plan

## SHORT-TERM STRATEGIES CONT.

### STRATEGY 6

Hire a full-time community education and outreach coordinator to promote the county wildfire protection plan

### STRATEGY 7

Limit and manage development in the forested areas of Boulder County to protect those lands and resources from fragmentation and other associated impacts

## LONG-TERM STRATEGIES

### STRATEGY 8

Evaluate the impacts of events caused by climate change on transportation infrastructure and the need for transportation infrastructure to help prepare for, respond to and recover from such events

### STRATEGY 9

Expand the sectors and communities involved in regional climate resiliency planning

### STRATEGY 10

Determine how to measure progress on various elements of the community's climate change preparedness efforts; determine measures of success

### STRATEGY 11

Incorporate climate change preparedness strategies into the Boulder County comprehensive recovery plan and the comprehensive planning process

### STRATEGY 12

Incorporate climate change preparedness strategies into Boulder County and City of Boulder multi-hazards plan

### STRATEGY 13

Support future climate change preparedness policies and collaborative efforts at the local, regional and state levels

> For more information on the Countywide Climate Change Preparedness Plan, please [BoulderCounty.org/find/library/gogreen/ccpp.pdf](https://BoulderCounty.org/find/library/gogreen/ccpp.pdf)

## EXTERNAL

## TARGET 2

Reduce countywide greenhouse gas emissions by 40% below 2005 levels by 2020

## SHORT-TERM STRATEGIES

## STRATEGY 1

Continue to offer EnergySmart, Boulder County's energy efficiency service, to residents and businesses

## STRATEGY 2

Offer low-interest financing through Elevations Credit Union's Energy Loans program for residents and businesses to complete energy efficiency upgrades and install renewable energy

## STRATEGY 3

Support increased access to renewable energy sources throughout Boulder County

## STRATEGY 4

Install light-emitting diode (LED) traffic signals

## STRATEGY 5

Educate Boulder County residents and businesses on reduction of peak electrical usage

## STRATEGY 6

Develop a multimodal transportation system (see "Transportation" section)

## STRATEGY 7

Support the increase of utility demand-side management programs and renewable power supply incentives, including an aggressive renewable portfolio standard

## STRATEGY 8

Encourage the adoption of residential and commercial energy efficiency codes throughout Boulder County's municipalities and towns

## STRATEGY 9:

Continue to strengthen the BuildSmart residential program to move toward net-zero energy use in new residential construction by 2022; enhance and improve commercial codes to achieve net zero energy by 2028

*> For more information on other emissions-reduction strategies, please see the "Air Quality," "Energy & Buildings," and "Transportation" sections of this plan.*

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Boulder County is committed to offering low-interest financing for residents and businesses to complete energy efficiency upgrades and install renewable energy systems.

## Sustainability Challenge

### **CARBON NEUTRALITY**

Achieving carbon neutrality in our internal operations is a key goal for Boulder County and an aggressive way to reduce our carbon emissions. Yet, what does it mean to be “carbon neutral?” Carbon neutrality goes beyond emission reduction, striving not to contribute any carbon into the atmosphere. Being carbon neutral refers to when the carbon dioxide produced by a person or process is exactly balanced by the amount of carbon dioxide offset by that person or process.

Most places aren't able to completely eliminate carbon emissions. Typically, the final step to carbon neutrality is offsetting your remaining emissions. Offsetting means contributing to something that will reduce carbon in the atmosphere, such as planting trees.

True carbon neutrality requires reducing carbon emissions as much as possible in all efforts, including transportation, building-energy use, factories, farming/ranching, etc. This can include improving efficiency, choosing non-carbon producing options, or using renewable energy sources like solar photovoltaic (PV) systems or pure, locally sourced biofuels.

Boulder County will strive to reach carbon neutrality in its internal operations by increasing efficiency in county buildings, purchasing more renewables to operate our buildings with green power, and encouraging employees to use less energy and water throughout the work day.

## POLICY PRIORITIES

### *Support State and Federal Legislation, Regulation and Other Policy Means to Address Climate Change*

Boulder County has established aggressive goals and taken numerous steps to reduce the carbon footprint of county operations and move the county and the community toward carbon neutrality. It is imperative that the state and federal governments begin creating the national policy and regulatory framework necessary to strengthen the response nationwide and to achieve dramatic reductions in greenhouse gas emissions. Boulder County supports state and federal action through regulation of carbon dioxide and other emissions pollutants, a robust renewable portfolio and biofuel standards to power the electricity grid and vehicles, strong energy efficiency manufacturing standards and guidelines, and other such legislation and regulation.

See “Energy & Buildings” and “Transportation” sections for important policies related to energy and emissions impacting climate change.



## POLICY PRIORITIES CONT.

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*Support Regulation of Carbon Dioxide*

Any law that places a price on carbon must achieve two basic and interrelated goals: Discouraging the use of oil, coal and natural gas, and encouraging the development of renewable sources of energy. In the United States, two main paths to this end have been proposed. The first is a cap-and-trade system, which would place gradually stricter restrictions on fossil fuel use; require power plants, industries and other major sources of greenhouse gases to purchase permits to emit carbon dioxide; and establish a market in those permits. The second is a tax on fossil fuels. Supporters of both methods say the economic difficulty created by higher energy prices could be offset by rebates to taxpayers.

Proponents of the cap-and-trade model argue that it has two main strengths. It sets a gradual declining ceiling on carbon emissions, and it uses the free market to wean the country off fossil fuels and onto renewable energy by creating a market that rewards companies for reducing CO<sub>2</sub>. Corporations that reduce emissions below their allotment can sell them on the open market.

Proponents of a carbon tax say this model has one overriding benefit: its simplicity. They argue that by imposing a predictable and steadily increasing tax on fossil fuels, a carbon tax would also drive development of alternative sources of energy. On November 7, 2006, City of Boulder voters approved Initiative 202, the Climate Action Plan

tax (CAP), marking the first time in the nation that a municipal government imposed a carbon tax to directly combat climate change. As most electricity in Boulder is generated from coal-fired power plants, the City of Boulder CAP tax is set to reduce Boulder's overall output of CO<sub>2</sub>. The tax generates about \$1 million for the city annually and funds energy efficiency services like EnergySmart and 10 for Change to help homeowners and businesses become more energy efficient. For more information see [EnergySmartYes.com](http://EnergySmartYes.com) and the Policy Priorities in the "Energy and Buildings" section.





## TAKE ACTION

Learn how you can reduce your climate impact. Each person is different, so use a Carbon Footprint Calculator to help you determine the best ways for you to reduce your impact. Please visit [Nature.org/GreenLiving/CarbonCalculator/index.htm](https://www.nature.org/greenliving/carbon-calculator/index.htm)

Carbon footprint measures the amount of CO<sub>2</sub> produced annually from our daily activities (from burning fuels). The average North American's carbon footprint is 2,012 tons of CO<sub>2</sub> emissions a year. This means that every American would have to plant 29 trees a year to balance out their strain on the environment! Luckily there are almost endless and surprisingly simple ways to minimize our negative effects on the environment. To get started making a difference, tackle the list below or decide which options can easily be adjusted to fit into your lifestyle. Even small changes add up over time!

- Try to minimize waste—recycle, reuse and avoid packaging that can't be recycled or reused.
- Reduce your carbon-based travel. Research shows that 44% of our car trips are two miles or less. Take stock of where you're going and consider walking, biking or using public transportation. Combining trips and carpooling can also save over time.
- Start a compost bin/pile! It's easy and great for your garden (or someone else's if you don't have a one)!
- Work your green thumb: Plant a tree, grow your own vegetables or start your own garden.
- Eat less meat. The meat industry is the largest contributor to climate change, as livestock animals produce large amounts of methane. Methane is a greenhouse gas that packs 72 times the punch of CO<sub>2</sub> over a 20-year period. There is no need to cut out red meat entirely, but fewer steaks and burgers means far less methane.
- Make your home and household energy efficient. Just because your computer, air conditioner or television is off doesn't mean it's not using electricity. Unplug everything you're not using. Make sure your house is well insulated, and buy energy and water efficient appliances. An EnergySmart advisor can help you figure out ways to reduce your energy use, increase the comfort of your home and save you money. Find out more at [EnergySmartYes.com](https://www.energysmartyes.com).
- Go solar or purchase "green electricity." Green power is electricity that comes from renewable sources such as solar and wind, but is delivered to you in the same way as dirty power from fossil-fuel burning. Most energy suppliers now offer this service and will purchase energy from green sources that is equivalent to what you use.
- Buy local produce. "Food miles" is a way of expressing how far an item of food has travelled before it reaches your dinner table, and therefore how much CO<sub>2</sub> has been emitted during travel. A good rule of thumb is that if you buy something that has been produced locally, it will usually have lower CO<sub>2</sub> emissions attached to it.

# ECOLOGICAL HEALTH



# ECOLOGICAL HEALTH

## INTRODUCTION

Boulder County owns or oversees more than 98,000 acres of open space, conserving natural, cultural and agricultural resources and providing public uses that reflect sound resource management and community values. This is in partnership with local, state, federal and private entities that manage an additional 109,600 acres of federal land and 53,600 acres of open space and public land in the cities of Boulder, Longmont, Louisville, Lafayette, Ward, Denver and Gold Hill.

Preserving and restoring natural resources benefits the public and the environment. Boulder County purchases land in two ways: Through outright acquisition or with conservation easements. This ensures the land will remain an ecologically viable habitat for wildlife and plants and remain free from urban development. In addition to purchasing open space, Boulder County started restoring grasslands on unproductive agricultural land over 15 years ago and continues to expand these efforts.

Moreover, Boulder County and our municipal partners enhance stream or riparian habitats, given most wildlife use our stream corridor habitats during their lives and healthy riparian areas also protect water quality. In addition, fire suppression, overgrazing and climate change have all impacted the health of forests in Boulder County. Reintroducing disturbances, like thinning trees or prescribed fire, help improve forest health. Finally, trails

provide people an opportunity for improving their health and well-being, enjoying the outdoors, and connecting with the natural world. Boulder County takes pride in maintaining more than 100 miles of trails, bringing our community outdoors to appreciate Colorado landscapes.

## *Sustainability Success!*

### **OPEN SPACE**

Open space protects habitat for naturally occurring ecosystems and their native wildlife populations. Open space also contributes to our community values by conserving natural, cultural, and agricultural resources, and by supporting a strong economy. Open space can help our economy by increasing property values near open space, improving regional economic performance by attracting quality workers for area businesses, increasing space for bike paths and other active transportation options between cities, and infusing local and tourist dollars into outdoor recreation activities (over \$10 billion annual impact to Colorado's economy). A significant part of the economic engine of Boulder County can be attributed to the value of working, living and playing in the same area. Boulder County Open Space contributes to this high "quality of life" and creates a community that values all benefits derived from preserving and utilizing open space.

ECOLOGICAL GOAL

Ensure healthy and vibrant ecosystems that sustain all naturally occurring species, along with our human population

INTERNAL

TARGET 1

Preserve and restore grasslands, open space and forested lands

SHORT-TERM STRATEGIES

STRATEGY 1  
Preserve an additional 1,500 acres of open space by the end of 2015

STRATEGY 2  
Continue restoration of 1,800 acres of converted grasslands and identify additional grassland acres to be restored annually in the Parks and Open Space (POS) Capital Improvement Plan

STRATEGY 3  
Restore 400 additional acres of forest land by 2015

STRATEGY 4  
Thin trees along county roads to reduce hazard trees and create fuel breaks

LONG-TERM STRATEGIES

STRATEGY 5  
Identify additional grassland and open space areas to restore by 2020

STRATEGY 6  
Restore an additional 1,000 acres of forested lands by 2020

STRATEGY 7  
Preserve 5,000 acres of suitable prairie dog habitat on county open space

INTERNAL

TARGET 2

Restore riparian habitat on Boulder County properties

SHORT-TERM STRATEGIES

STRATEGY 1  
Restore one to three riparian areas annually

INTERNAL

TARGET 3

Maintain existing Boulder County trails and add additional miles of trails

SHORT-TERM STRATEGIES

STRATEGY 1  
Maintain all existing Boulder County trails

STRATEGY 2  
Identify trails to be built in the POS capital improvement plan

LONG-TERM STRATEGIES

STRATEGY 3  
Identify additional trails to construct by 2020

INTERNAL

TARGET 4

Include forest health in the Boulder County Comprehensive Plan

SHORT-TERM STRATEGIES

STRATEGY 1
Resurrect and completely update the Mountain Element of the 1978 Boulder County Comprehensive Plan (BCCP) (goals, policies, text and maps); focus new emphasis on forest health maintenance and restoration, living in mountainous ecosystems, wildfire mitigation, limiting development in forested areas, and other considerations

EXTERNAL

TARGET 5

Increase the number of acres of healthy forests in Boulder County

SHORT-TERM STRATEGIES

STRATEGY 1
Plan and implement landscape-scale forest treatments

STRATEGY 2
Improve rural slash and debris removal program

STRATEGY 3
Share data and mapping for forestry

projects across fire protection districts and governments

STRATEGY 4
Create a low-interest loan program for residents to treat their forests around their homes

STRATEGY 5:
Maintain healthy in-stream flows as part of riparian restoration efforts

All fire-fuel reduction measures will be science-based and focused in the wild-land urban interface.

## EXTERNAL

### TARGET 6

Expand education and outreach on forest health

## SHORT-TERM STRATEGIES

### STRATEGY 1

Present hands-on education, offer workshops, provide site visits and disseminate forest health information to private residents

## EXTERNAL

### TARGET 7

Increase the percentage of mountain residents with effective fire mitigation around their homes

## SHORT-TERM STRATEGIES

### STRATEGY 1

Provide private landowners a means to dispose of their wood

### STRATEGY 2

Create and expand the use of community forestry sort yards, chipping grants and other tools

### STRATEGY 3

Expand utilization of material collected in sort yards

## EXTERNAL

### TARGET 8

Ensure that land use decisions follow smart growth principles, including concentrating urban development within or adjacent to existing urban areas and preserving the rural character of the county

## SHORT-TERM STRATEGIES

### STRATEGY 1

Limit and manage development in the forested areas of Boulder County to protect those lands and resources from fragmentation and other associated impacts

> For a full list of strategies and descriptions of these strategies, please see [BoulderCountyOpenSpace.org](http://BoulderCountyOpenSpace.org).



A group of citizen activists in the 1970s can be credited with the foresight to plan for our future. They realized that unplanned growth could forever alter the natural ecological environment, thus changing the landscape of Boulder County. This realization was the impetus for comprehensive land-use planning. The original Boulder County Comprehensive Plan, adopted in 1978, set the stage for shaping our landscape today by defining desirable growth and launching an open space protection program. The county has followed this plan by creating agreements with municipalities to outline community boundaries, purchasing open space and directing land uses to appropriate areas.

Today in Boulder County you can see preserved range lands and working farms; protected forest, riparian and grassland ecosystems that host myriad wildlife; multiple-use trails; and urban buffers. Urban development is adjacent to urban areas, and rural areas remain vibrant. Rare or endangered animals, like the burrowing owl, have places to nest. Soaring eagles are more plentiful in our skies. Forests protect our water sources, and lands that were once degraded are now home to native plants and animals. In total, the county has preserved almost 100,000 acres of land from future development.

## POLICY PRIORITIES

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### *Conserve and Protect Colorado's Land and Abundant Natural Resources*

Colorado's environment is a singular component of its quality of life. Recognizing this, the state and its local government partners have developed a host of public policy and programmatic initiatives designed to conserve and protect Colorado's land and natural resources. Examples include: The Conservation Easement Tax Credit, the Land and Water Conservation Fund, America's Great Outdoors Initiative, and Great Outdoors Colorado. Boulder County will continue to support and use these tools to protect our local environment.

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### *Support Full and Ongoing Funding for the Collaborative Forest Landscape Restoration Program*

The Collaborative Forest Landscape Restoration Program was established by Congress in 2009. The program encourages collaborative, science-based ecosystem restoration of priority forest landscapes on federal lands and supports up to 50% of the restoration treatment costs. In 2011, Colorado was awarded funding for two collaborative projects, including the Front Range Roundtable project, which has been approved for funding for 10 years, pending annually appropriated funding.

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### *Support Legislative Efforts to Promote Wildfire Mitigation in Communities at Risk for Wildfire*

Recent wildfires in Boulder County and across the state have reinforced the need for collaborative landowner and intergovernmental participation in mitigation efforts in the wildland urban interface. In particular, Boulder County supports legislative efforts that promote:

- Forest health projects that improve forest conditions, reduce fuels for fire, and create fuel breaks and safe escape routes
- Increased homeowner participation in creation and maintenance of defensible space and safe home ignition zone
- Increased use of ignition-resistant building materials in residential construction
- Intergovernmental coordination before, during and after a wildfire to reduce the risk of wildfire and ensure public safety and effective management during a wildfire
- Limit and manage development in the forested areas of Boulder County to protect those lands and resources from fragmentation and other associated impacts

A close-up photograph of a person's hands planting a small green seedling into the soil. The person is wearing blue jeans. The soil is dark brown and appears to be in a garden or field. The seedling has several green leaves and a small root system. The person's hands are positioned to hold the seedling steady as it is placed into a hole in the soil.

## TAKE ACTION

Boulder County has a variety of volunteer opportunities for anyone interested in open space. You can spend a few hours collecting native seeds or adopt a trail to clean up regularly. You can help restore forests or monitor wildlife or weeds. Your organization could become a partner and bring a group out to open spaces a couple of times a year to help on various projects. During the past five years, Boulder County Parks and Open Space has doubled our volunteer hours and expanded opportunities for you to have a hand in preserving this community treasure. Join us, and help define the future for the next generation! [BoulderCountyOpenSpace.org](https://BoulderCountyOpenSpace.org)

# ENERGY & BUILDINGS



# ENERGY & BUILDINGS

## INTRODUCTION

Boulder County strives to foster building practices that improve environmental, economic and social sustainability, while minimizing negative impacts through our Comprehensive Plan and Land Use Code, which complement our BuildSmart, EnergySmart and Housing Authority programs and services.

In 2008, the county adopted BuildSmart, a green building program for new residential construction that sets mandatory requirements to improve energy efficiency, conserve water and resources, and reduce waste generated by new construction and additions, helping local businesses strive for Leadership in Energy and Environmental Design (LEED) standards and sustainable development. The BuildSmart program encourages high performing, sustainable residential

development, and redevelopment in the unincorporated areas of Boulder County, by promoting development that will create energy efficient structures that reduce both the production of greenhouse gases from residential buildings and the amount of material sent to landfills. These measures help conserve water and other natural resources in the home-building process.

In addition, Longs Peak Energy Conservation, part of Boulder County's Housing and Human Services Department, offers weatherization services for low-income residents to make cost-effective, energy-efficient improvements and upgrades in their homes. Free weatherization improvements, such as energy audits, insulation, furnace replacements, air sealing and the installation of compact fluorescent light bulbs are available to qualifying homeowners and renters.



## ENERGY GOAL

Reduce energy consumption, increase the use of clean energy and transition away from fossil fuels

## BUILDINGS GOAL

Move toward net-zero energy use in all county buildings and develop building codes and policies that promote energy efficiency in new and existing buildings

### INTERNAL

#### TARGET 1

Reduce Boulder County's internal energy consumption and move toward net-zero energy use in Boulder County buildings

#### SHORT-TERM STRATEGIES

##### STRATEGY 1

Require that all existing Boulder County buildings that are eligible for ENERGY STAR label achieve the ENERGY STAR label

- Energy modeling must show 48% energy cost savings as compared to baseline modeling using ASHRAE Standard 90.1 2007

##### STRATEGY 2

Require that all new Boulder County buildings achieve all available points within the Energy and Atmosphere's section of the U.S. Green Building Council's LEED for new construction:

- Must obtain 15% of the building's energy needs from renewable energy

> *For more information on other energy saving strategies, please see the "Climate" section of this plan.*

### INTERNAL

#### TARGET 2

Increase Boulder County's internal purchase of renewable energy and expand opportunities for renewable energy across Boulder County

#### SHORT-TERM STRATEGIES

##### STRATEGY 1

Expand purchase of renewable energy from local utilities to achieve carbon neutrality by 2020

> *For more information on Boulder County's internal energy operations, see [BoulderCounty.org/Sustainability](http://BoulderCounty.org/Sustainability)*

##### STRATEGY 2

Expand solar for all county buildings

## EXTERNAL

### TARGET 3

Increase energy efficiency in residential and commercial properties across Boulder County

## SHORT-TERM STRATEGIES

### STRATEGY 1

Continue to offer EnergySmart, Boulder County's energy efficiency service, to residents and businesses to improve the efficiency of existing buildings:

- Offer the Energy Advisor service to help achieve high conversion rates from energy assessment to energy upgrade
- Offer incentives and rebates for energy efficiency measures
- Continue energy efficiency and EnergySmart education and outreach efforts

### STRATEGY 2

Offer low-interest financing for residents and businesses through the Elevations Credit Union Energy Loans Program to complete energy efficiency upgrades and install renewable energy

### STRATEGY 3

Increase outreach and education efforts with the local energy efficiency contractors, designers, home and business owners:

- Continue offering workshops, trainings and educational resources
- In collaborations with local non-profits, continue to build relationships with energy efficiency contractors

### STRATEGY 4

Work with local utilities and the private sector to replicate the EnergySmart model locally and look for opportunities to replicate the model throughout the state of Colorado

### STRATEGY 5

Continue offering free and subsidized weatherization services to qualifying low-income residents

### STRATEGY 6

Improve land use and zoning controls in the Land Use Code to achieve optimal use of passive heating and cooling strategies through building location

## LONG-TERM STRATEGIES

### STRATEGY 7

Continue to strengthen the BuildSmart residential program to move toward net-zero energy use in new residential

construction by 2022 and enhance and improve commercial codes to achieve net zero energy by 2028



LEADS THE WAY

Energy reduction and using renewable energy are top priorities in county-owned buildings. The county started performing energy audits, lighting efficiency projects, building controls upgrades, and heating/ventilation/air conditioning improvements in the 1980s, and these efforts continue today.

In 1998, the county began benchmarking energy use with the Environmental Protection Agency's ENERGY STAR program. Several county buildings have achieved ENERGY STAR labels, marking them as top performers in energy performance. In addition, two county buildings have achieved high ratings from the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) ratings:

- The Addiction Recovery Center received LEED Gold for New Construction.
- The 100-year-old Courthouse Annex achieved LEED Gold for Existing Buildings Operations and Maintenance.
- The Longmont Human Services building will be net-zero energy and built to LEED platinum standards.

In 2005, the county began purchasing a significant amount of its electrical power from wind generation. From 2008, the county started installing solar photovoltaic (PV) systems and, as of June 2012, has installed over 900kW of solar panels on county buildings. At times, some of these buildings are totally powered by the sun. The Boulder County Jail and the Open Space and Transportation Complex both have biomass boilers. The boilers provide all the heating required at these buildings in the winter and operate on wood chips harvested during forest fire mitigation work on Boulder County-owned open space property. Josephine Commons, a new affordable housing development for seniors and low-income families in Lafayette features both geothermal and solar.

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Since 1990, the county has added 40% more building square footage but has kept greenhouse gas emissions constant at 1990 levels, thanks largely to these sustainable energy efforts.



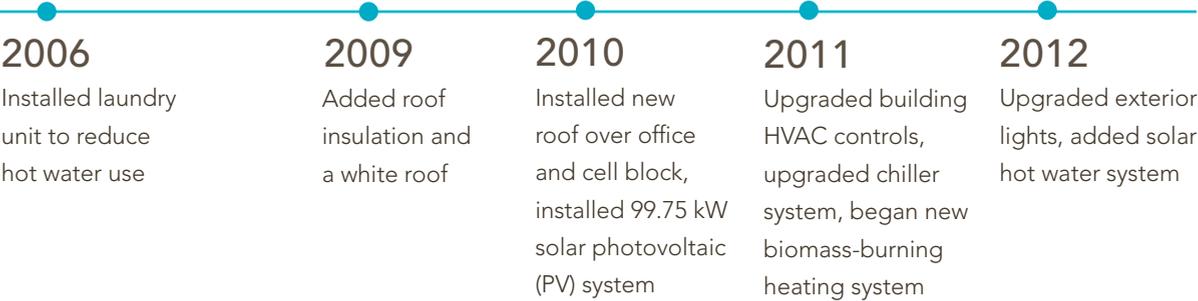
The Boulder County Jail opened in 1988 with a bed design capacity of 287. The jail is currently 103,400 square feet, with 536 beds.

In 2009, Boulder County engaged an engineering firm (M.E. Group) to complete a baseline energy model assessment of the county jail. Through the energy modeling process, it was determined that the

majority of the energy usage for the jail was attributed to space heating.

With Boulder County’s integration of alternative energy, upgrades to existing systems and other changes, the jail is on track to reduce energy use by 59%. See below for a timeline of upgrades.

To optimize heating and energy performance, Boulder County Jail made the following energy upgrades:



*Sustainability Success!*

**EnergySmart**

In July 2011, Jason Gray, a resident in the Arborwood HOA in north Boulder, called EnergySmart to get help upgrading his attic insulation. Attics at Arborwood are commonly owned by the HOA, which meant that the upgrade would need to be approved by the HOA board. The Arborwood board thought that more than just Gray's space should be improved.

More than seven months and many conversations later, Arborwood completed a major improvement to their attic insulation, upgrading all 88 top-floor units from about R-21 to either R-38 or R-49. An "R-Value" is a measure of insulation's ability to resist heat traveling through it. The higher the R-Value, the better the thermal performance of the insulation.

The process involved more than 100 individuals coming together to save energy, reduce heating bills, improve their comfort, and add value to their community.

**88**  
Total units with added attic insulation and air sealing

**\$77,364**  
Total project cost

**\$30,000**  
Total rebates received

**32%**  
Expected reduction in total energy use as a result of the added insulation and air sealing



## Sustainability Success!



Working with Boulder County Public Health, Energy Advisor Mary Wiener upgraded nearly one million square feet of commercial properties throughout Boulder County.

The W.W. Reynolds Companies, Inc. was one of more than 2,000 Boulder County businesses that took advantage of Boulder County's EnergySmart program to improve its bottom line through energy efficiency upgrades.

The W.W. Reynolds Companies completed upgrades for more than 30 of its commercially leased properties, including 60 lighting

projects and 18 rooftop heating and cooling equipment replacements. These lighting and equipment retrofits are estimated to save W.W. Reynolds' tenants more than 2 million kilowatt-hours per year and prevent 1,137 tons of annual greenhouse gas emissions. Several tenants have reported that they are saving an estimated 20-25% on their utility bills as a result.

**Both W.W. Reynolds and their tenants found great value:**

"Without the help of the EnergySmart Advisor, it would have been impossible to complete these projects. The Advisor helped me work out the numbers, review contractor bids and complete the rebate applications."

— **Aaron Schlager, the W.W. Reynolds Companies**

"The EnergySmart service has saved us quite a bit of money through reduced energy use. The contractor did an excellent and fast job."

— **Gary Neptune, Neptune Mountaineering**

## POLICY PRIORITIES

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*Support Permanent Funding for the Energy Efficiency and Conservation Block Grant Program*

Authorized by the Energy Independence and Security Act of 2007 and funded through the American Recovery and Reinvestment Act of 2009, the Energy Efficiency and Conservation Block Grant (EECBG) program provides direct allocations to local governments to fund cost-effective energy efficiency programs. Boulder County, as a past recipient of these funds, supports continued and permanent appropriations for the EECBG program.

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*Support Legislative and Other Efforts to Allow Continued Implementation Of Property Assessed Clean Energy (PACE) Finance Programs*

Boulder County's ClimateSmart Loan Program (CSLP) was one of the most advanced Property Assessed Clean Energy (PACE) programs in the nation. In Fall 2010, as a result of directives issued by the Federal Housing Finance Agency (FHFA), the county was forced to suspend the residential component of the CSLP. Two years later, the FHFA remains firmly entrenched in its opposition to local government implementation of PACE. With this circumstance in mind, Boulder County supports Congressional action to remove the federal preemption of PACE so that it can flourish as a key tool in our nation's transition to a clean energy future.

---

*Support Creation of Green Building Codes and Related Policies to Improve the Energy Performance of Colorado's Building Stock*

Residential and commercial buildings account for nearly 45% of the electricity and natural gas consumed in Colorado. Green building codes play a critical role in ensuring that energy efficiency technologies are supported in the marketplace, and provide multiple benefits to homeowners, renters, building owners and tenants, and society at large through reduced energy demand and energy cost savings. Boulder County supports legislative and policy efforts that will lead to improvements in the energy performance of Colorado's building stock, including a uniform statewide "green building" code, demand-side incentives for property owners including those in jurisdictions with green building codes, and elimination of federal preemption of local development of green building codes.

---

*Support Building Energy Use Disclosure Requirements, Carbon Labeling and Other Efforts to Raise Awareness with Respect to Energy Consumption of Commercial Buildings*

As identified in the Boulder County Sustainable Energy Plan, building energy use disclosure requirements are seen

## POLICY PRIORITIES CONT.

as an effective strategy for raising awareness in building owners, managers and tenants about the impacts and costs of a building's energy consumption.

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*Support Enabling Legislation to Enact Residential and Commercial Energy Conservation Regulations*

As identified in the Boulder County Sustainable Energy Plan, Residential Energy Conservation Ordinances (RECOs) and Commercial Energy Conservation Ordinances (CECOs) are effective policy tools for upgrading the energy efficiency and performance of the existing residential and commercial building stock. Boulder County supports enabling legislation to provide Colorado counties and statutory cities and towns this same capability.

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*Support State Legislation to Advance Community Choice Aggregation in Colorado*

Community Choice Aggregation, or CCA, enables cities and counties—or groups of cities and counties—to supply electric power to the customers within their borders through aggregate purchase of electricity rather than direct ownership of an electric distribution system. Boulder County supports legislation and/or other policy initiatives

that will provide the opportunity for CCA to be considered as an important tool for achieving a clean energy future for Colorado.

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*Support Legislation And Other Policy Approaches To Advance An Aggressive Clean Energy Agenda For Colorado*

Colorado has made significant efforts in recent years to create a policy and administrative framework to support clean energy. Voter and State Legislature-initiated legislation have resulted in the creation of one of the strongest Renewable Energy Standards (RES) in the nation, electricity and natural gas savings goals for the state's largest utilities, and a host of financial and other incentives to support energy efficiency and renewable energy. Boulder County supports continued pursuit of an aggressive clean energy agenda for Colorado, which would reduce greenhouse gas emissions and strengthen local economies through such strategies as increasing the RES, expanding state support of and engagement with weatherization efforts, and developing an energy efficiency performance standard for all utilities, amongst others.

## TAKE ACTION

EnergySmart is a one-stop resource for residents and businesses in all Boulder County communities. We'll help you find the best tools, programs, incentives and more. Just give a call to get started and find the best ways you can save energy today:

*For Homes:* **303.544.1000**

*For Businesses:* **303.441.1300**

Or visit **EnergySmartYes.com**

A person wearing a red long-sleeved shirt and black shorts is running on a gravel trail. The background features rolling hills with sparse vegetation under a clear blue sky. The text "HEALTH & WELLNESS" is overlaid in white on the right side of the image.

# HEALTH & WELLNESS

# HEALTH & WELLNESS

## INTRODUCTION

Health and wellness is an important aspect of environmental sustainability, as a healthy environment often equates to a healthy population. Providing access to local food production and a variety of transportation choices creates greater opportunities for our residents to engage in healthy eating and active living. Furthermore, environmental issues such as air and water pollution and climate change can have a direct impact on the well-being of our residents. Thus, linking public health to environmental health is critical.

Boulder County generally enjoys the reputation of being a prosperous and healthy place and holds itself to a high standard of health, wellness and quality of life. However, a closer look through an equity lens reveals many concerns and challenges in terms of poverty, obesity, mental health, substance abuse and food access. Most Boulder County residents would undoubtedly be surprised to learn that nearly 20% of our children live in poverty, that our binge drinking rates are among the highest in the nation, and that child obesity has made alarming inroads in our community.

Our high expectations are fueled by national “best of” lists that tout our Olympic-caliber athletes, locally grown “foodie” culture, and convenient bike paths. We treasure our landscape

of rolling plains, foothills and the Rocky Mountains and our climate that promises 300-plus days of sunshine per year. Many assume that all Boulder County residents are naturally drawn toward outdoor recreation. Health status data for the overall county population does reflect our high expectations: In general, we smoke less, have lower Body Mass Index (BMI), eat more healthy foods, exercise more intensively and have lower rates of chronic disease than the nation as a whole. Yet, at Boulder County Public Health (BCPH), we understand that terms like “overall” and “general” can lull us into complacency.

With a mission to “protect, promote, and enhance the health and well-being of all people and the environment in Boulder County,” BCPH is charged with looking deeper into the data to understand and act upon the additional health burden faced by populations with fewer opportunities for a healthy life. These health disparities are largely preventable differences and are not acceptable in our community. BCPH seeks to work with organizational partners and community members to bring all Boulder County residents to a high standard of health and wellness. To ensure that a healthy and equitable life is available to every Boulder County resident, BCPH has determined areas of greatest health need and is committed to improving them over the next five years and into the future.



# HEALTH & WELLNESS

## HEALTH GOAL

Work to protect, promote and enhance the health and well-being of all people and the environment in Boulder County

## INTERNAL

### TARGET 1

Develop a strategic public health plan to improve overall health within Boulder County

## SHORT-TERM STRATEGIES

### STRATEGY 1

Conduct assessments of the following health sectors to determine which areas have the greatest potential for improving overall health within Boulder County:

- Community Health Assessment
- Core Services Assessment
- Local Public Health System Assessment

### STRATEGY 2

Develop measureable health outcome strategies, goals and objectives for each program within Public Health

## LONG-TERM STRATEGIES

### STRATEGY 3

Implement strategic plan for health and wellness

## INTERNAL

### TARGET 2

Achieve Public Health Improvement Plan objectives by 2017

## INTERNAL

### TARGET 3

Increase local capacity to respond to the potential impacts of climate change, such as increased heat emergencies and vector borne diseases\*

\*Vector-borne disease is the term commonly used to describe an illness caused by an infectious microbe that is transmitted to people by blood-sucking insects.

## SHORT-TERM STRATEGIES

### STRATEGY 1

Increase healthy eating and active living within Boulder County

### STRATEGY 2

Improve the mental health of Boulder County residents

### STRATEGY 3:

Reduce substance abuse within Boulder County

> For more detail, please see *Public Health Improvement Plan, HealthyBoulderCounty.org*

## SHORT-TERM STRATEGIES

### STRATEGY 1

Establish locally relevant conditions of what constitutes a heat emergency

### STRATEGY 2

Monitor weather trends for incidences of prolonged extreme heat events

### STRATEGY 3

Identify the location of high-risk populations (elderly and mobility challenged)

### STRATEGY 4

Develop a response plan for heat emergencies

- Establish partnerships with aid organizations
- Determine locations for cooling shelters

### STRATEGY 5

Implement a vector disease surveillance and response program

### STRATEGY 6

Monitor trends related to increased vector activity due to climate change

>See "Climate" section for more information on *Climate Change Preparedness Targets*.

> For a full list of strategies and descriptions of these strategies, please see *Boulder County Public Health website, BoulderCounty.org/dept/publichealth*

BOULDER

LEADS THE WAY

COUNTY

Boulder County Public Health (BCPH) is partnering with LiveWell Longmont and the City of Longmont to create a new healthy eating and active living chapter for the Longmont Area Comprehensive Plan, to bring attention to how the city's codes and regulations can support a healthier community. Adoption of this new chapter will lead to further policy and environmental changes that support healthy eating and active living choices. Key concepts proposed in this chapter include:

- Increasing access to healthy eating and active living choices
- Providing a variety of transportation choices
- Integrating land use and transportation, so that physical activity can be easily incorporated into people's daily lives

- Promoting access to healthy food
- Supporting the local food system

Boulder County Public Health's Youth Corps Team has worked on projects that improve healthy eating and active living in our community. Through neighborhood walkability and bikability assessments, bike parking audits, bike counts, and gardening in Longmont YMCA's demonstration farm, we are gathering critical data that will support improvements in public health as well as future grant writing efforts. BCPH's Food Safety program has collaborated with partners to promote healthy, safe and local foods within the community, at local farmers markets, and on Food Day. Visit [FoodDayBoulderCounty.org](http://FoodDayBoulderCounty.org) to learn more.



### **Building a Caring and Livable Community for All**

Implementing a livable community blueprint involves all sectors of the community and supports understanding of the interconnectedness between natural, economic and cultural resources. It impacts not only where we live, but how we live. In Boulder County, livability depends on engaging the full range of values and resources linking together economic, social and environmental sustainability. Values influencing transportation, water and air quality, local food, and other areas also influence social sustainability—strong local partnerships, a coordinated approach, public participation and an appreciation of interrelationship between systems.

The Boulder County Human Services Strategic Plan is a community blueprint focusing on social sustainability in Boulder County. Successful implementation of the plan will result in a coordinated safety net for Boulder County's most vulnerable residents that is supportive, empowering and responsive to emerging needs through:

- Integrating and coordinating delivery of human services
- Prioritizing inclusiveness in service delivery and decision making
- Coordinating human services with educational opportunities
- Striving to meet basic needs such as food and shelter
- Improving access to health care
- Promoting economic well-being and self-sufficiency
- Supporting safe and stable communities

The Building Caring and Livable Communities for All blueprint can be found at:

**[BuildingLivableCommunities.org](http://BuildingLivableCommunities.org)**

## POLICY PRIORITIES

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*Support Local Involvement in the Implementation of the Patient Protection and Affordable Care Act*

Boulder County supports a collaborative effort between state agencies and counties for implementing the Patient Protection and Affordable Care Act. As the entities responsible for front-line implementation of public health and human service benefits, and public and community based health programs in Colorado, counties bring a crucial perspective to the implementation of healthcare reform. Together, Boulder County believes that the state and counties can implement healthcare reform in a manner that will build upon existing assets and improve service delivery for families and individuals across Colorado.

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*Support Full Implementation and Funding of Health Care Reform as Enacted in the Patient Protection and Affordable Care Act of 2010*

Health care reform, as enacted in the Patient Protection and Affordable Care Act (ACA) of 2010, will be implemented nationwide by 2014. Boulder County supports full implementation of the ACA and will oppose any attempt to divert the funding called for in the legislation, including but not limited to funds for prevention and public health, high-risk insurance pools, and Medicaid expansions.

---

*Support Efforts to Increase Funding for Healthy Eating and Active Living to Decrease Obesity, Diabetes and Other Public Health Issues*

Obesity rates in Colorado are climbing. Although Colorado in the past was one of the healthiest states in the nation, that trend has reversed and rates of obesity for adults and especially children are climbing quickly. Healthy eating and active living will reduce both heart disease and cancer, which are the two leading causes of death in Boulder County. Obesity is the third most important public health priority in Boulder County.

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*Support Efforts That Require Mandatory Vaccinations*

Boulder County's population-based programs focus on delivering services to the entire community. These services are proven to realize a more positive health impact than individual interventions alone, such as vaccination to control against communicable disease. Colorado ranks second in the nation in lowest vaccination rates, and Boulder County has one of the lowest rates in the state. Mandatory vaccinations have been recommended by multiple organizations as a best practice to increase group immunity and therefore improve protection of our population against communicable disease.

## POLICY PRIORITIES CONT.

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*Boulder County Supports the Public Health Act of 2008 and Funding for Local Governments to Implement Improvement Plans to Meet State Goals*

The Public Health Act of 2008 (SB 08-194) required the state and each local public health agency to develop a public health improvement plan by 2010. Priority areas in the Boulder County Public Health Improvement Plan include: Improving mental health (including depression and suicide); reducing substance abuse; and encouraging healthy eating and active living. Supporting and adequately funding the implementation efforts for the improvement plan will provide accountability in the system and assure positive health outcomes.

---

*Support Regional Livability and Sustainability Planning Efforts*

In June 2009, the U.S. Department of Housing and Urban Development, the U.S. Department of Transportation, and the U.S. Environmental Protection Agency announced the Partnership for Sustainable Communities in order to help communities realize the following Livability Principles: Provide more transportation choices; promote equitable, af-

fordable housing; enhance economic competitiveness; support existing communities; coordinate policies and leverage investment; and value communities and neighborhoods.

Boulder County is committed to working collaboratively with regional stakeholders to achieve the outcomes envisioned in these federal Livability Principles. Additionally, Boulder County supports establishing an urban revitalization and livable communities program to provide federal grants to eligible local governments for various park and recreation purposes, including grants for rehabilitation and construction, innovation, at-risk youth recreation, and recovery action programs.

# LOCAL FOOD & AGRICULTURE



# LOCAL FOOD & AGRICULTURE

## INTRODUCTION

The Boulder County Commissioners (BOCC) have identified the preservation and improved viability of county agricultural lands as a high priority. Agricultural lands not only preserve the rural character and quality of life that are important to Boulder County residents, but local food markets are critical economic drivers for the county. In addition, supporting sustainable farming practices and local agriculture is a critical step in reducing our greenhouse gas emissions, which ultimately makes for a healthier place to live.

The BOCC promote a locally based food and agricultural system that advances Boulder County's economic, environmental and social well-being through research, education and public policy recommendations. The BOCC seek to improve the social well-being, including health and nutrition, of all Boulder County residents, and to improve the economic viability of current and future agricultural and local food-related industry within the county, while protecting and restoring the environment.

Boulder County also encourages and supports practices and food markets that improve the availability and accessibility of local, healthy and safe foods. Moreover, Boulder County promotes sustainable agricultural practices on publicly owned lands and encourages them on private lands. Sustainable practices include production methods that:

- are healthy and safe
- have low environmental impact
- are respectful to workers
- are humane to animals
- provide profitable agriculture opportunities to farmers
- support farming communities

The county also participates in regional agricultural efforts and implements recommendations at a local level to the extent appropriate and possible. Ultimately, Boulder County encourages the preservation and sustainable use of agricultural lands for their contribution to cultural, environmental and economic diversity.



## LOCAL FOOD & AGRICULTURE GOAL

Ensure a sustainable, local, safe and healthy food supply that is accessible to all and supported by our community

### INTERNAL

#### TARGET 1

Prevent food-borne illness

### SHORT-TERM STRATEGIES

#### STRATEGY 1

Prevent food-borne illnesses by continuing to partner with retail food establishments to implement Active Managerial Control Practices and become Partners in Food Safety

#### STRATEGY 2

Conduct inspections at all retail food establishments based on risk

#### STRATEGY 3

Educate at least 200 workers on 5 key food borne illness risk factors

#### STRATEGY 4

Educate consumers on four key food safety practices (Clean, Cook, Separate, Chill)

#### STRATEGY 5

Continue to implement Food and Drug Administration's Voluntary National Retail Food Program Standards

### INTERNAL

#### TARGET 2

Write an operating plan for each agricultural property owned by the county

### SHORT-TERM STRATEGIES

#### STRATEGY 1

Meet annually with tenants to identify conservation goals and share sustainable practices

#### STRATEGY 2

Ensure that we are meeting the goals of the operating plan

## INTERNAL

### TARGET 3

Support locally grown products and maximize the amount of food, fiber and forage that gets used locally

## SHORT-TERM STRATEGIES

### STRATEGY 1

Explore local markets with producers and buyers

### STRATEGY 2

Work to nurture relationships among local growers, distributors and potential buyers for the purpose of supporting business relationships and initiatives

### STRATEGY 3

Hire staff to explore the creation of a local Boulder County or regional label

### STRATEGY 4

Invest in local food infrastructure, such as farmers markets, food processing facilities, food distribution channels

## INTERNAL

### TARGET 4

Prioritize opportunities for organic operations on public agriculture land and support expansion of certified organic production on public agriculture lands, with a goal of 20% of cropland certified organic or in transition by 2020 if market forces allow

## SHORT-TERM STRATEGIES

### STRATEGY 1

Work with buyers and growers to identify organic markets

### STRATEGY 2

Provide incentives to organic producers and support organic producers pursuing organic certification through rent reductions during the three-year transition period

## INTERNAL

### TARGET 5

Maintain and enhance agricultural infrastructure and use technologies that improve sustainability as well as promote long-term agricultural stewardship practices

## SHORT-TERM STRATEGIES

### STRATEGY 1

Meet with tenants and local food growers to identify potential infrastructure needs (e.g. storage facilities) that are important to achieving local food production and sustainable farming practices

### STRATEGY 2

Hold annual staff meetings to identify potential infrastructure projects

### STRATEGY 3

Improve sustainability on Boulder County agricultural lands through the use of technology such as water-efficient irrigation systems, precision farming using GIS and GPS, data recorders for water usage, and soil moisture monitors

### STRATEGY 4

Promote long-term agricultural stewardship practices that promote soil fertility, reduce erosion and conserve water

## EXTERNAL

### TARGET 6

Expand education and outreach on local food and agriculture

## SHORT-TERM STRATEGIES

### STRATEGY 1

Provide virtual and actual tours of agricultural land

### STRATEGY 2

Develop and implement a comprehensive social media plan

### STRATEGY 3

Meet with school groups and develop a robust volunteer program on agricultural lands

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Boulder County is committed to working with growers, researchers, crop consultants and other agencies to find the best strategies for local Agricultural Lands.

## EXTERNAL

### TARGET 7

Develop a suite of tools to support a thriving agricultural community on Boulder County open space and private lands

## SHORT-TERM STRATEGIES

### STRATEGY 1

Identify and encourage a pool of qualified agricultural producers and maintain a strong agricultural community

### STRATEGY 2

Coordinate farmer training through Colorado State University Extension

### STRATEGY 3

Initiate succession planning program for farm operators

### STRATEGY 4

Work with growers, researchers, crop consultants and other agencies to find the best strategies for agricultural practices, and hire staff to compile locally relevant information and practices

### STRATEGY 5

Implement a Boulder County pollinator protection project that includes promoting dialog between farm operators and local beekeepers, participating in research projects to evaluate bee health, and developing dedicated pollinator habitat on open space agriculture properties

### STRATEGY 6

Use information and research to develop and implement a Strategic Integrated Pest Management program

## EXTERNAL

### TARGET 8

Increase accessibility of local food for low-income populations

## SHORT-TERM STRATEGIES

### STRATEGY 1

Promote access to agricultural land or local crops to groups not traditionally served by current market opportunities

### STRATEGY 2

Look for opportunities to make plots of land available to low-income groups

### STRATEGY 3

Allow access for charitable groups to produce food on open space

## EXTERNAL

### TARGET 9

Develop a program to evaluate the environmental impact of agricultural operations and mitigate these impacts

## SHORT-TERM STRATEGIES

### STRATEGY 1

Use existing or new data to evaluate the carbon footprint of various crops and agricultural operations

### STRATEGY 2

Work with local universities and other agencies to understand the carbon sequestration associated with perennial crops, such as grass, alfalfa, range land and orchards

### STRATEGY 3

Work with the Boulder County Transportation Department to continue the current use of locally sourced biodiesel and work to incorporate local feedstock into the system

### STRATEGY 4

Continue to support current local biodiesel programs and seek further opportunities to use local biodiesel in agricultural equipment

## EXTERNAL

### TARGET 10

Develop a long-term county- and community-based planning tool for local food and agriculture

## SHORT-TERM STRATEGIES

### STRATEGY 1

Develop internal needs assessment and initiate an internal scoping process with staff

### STRATEGY 2

Hold community stakeholder meetings and meet with local experts to help evaluate future agricultural needs

*> For more information, please see [Farmland.org/Programs/LocalFood](http://Farmland.org/Programs/LocalFood) and for a full list of strategies and descriptions of these strategies, please see [BoulderCounty.org/OpenSpace](http://BoulderCounty.org/OpenSpace)*

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Boulder County is committed to exploring local markets with producers and buyers.

## POLICY PRIORITIES

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### *Boulder County Supports Requirement of Mandatory Labeling of Use of Genetically Engineered Organisms in Food Products*

Consumers have the right to know what is in their food in order to make informed choices about whether or not to purchase genetically engineered food. Therefore, Boulder County supports state and/or federal legislation to require the mandatory labeling of food and food products derived from or containing genetically engineered organisms prior to sale to consumers.



## Sustainability Success!



### **KEITH BATEMAN**

Keith Bateman is proud to call himself a fifth generation Boulder County farmer. Keith's great-great grandfather homesteaded in Boulder County in 1859, and Keith's father farmed around Waneka Lake when Keith was a child. However, when Keith was 15 years old, his father sold all of the family's farm equipment and was preparing to move to Oklahoma in response to the increased development occurring in Boulder County.

In the end, Keith's family didn't move, and the next year Keith borrowed \$800 to buy a tractor and leased 40 acres of land to begin his own farming career. The old-timers thought he was crazy for going into farming at that time. Keith now farms on a number of properties across the county—many of which he leases from Boulder County Parks and Open Space (POS). Along with being the largest wheat producer in the county, Keith also raises barley, corn, alfalfa, grass hay, oats (for both grain and feed) and millet.

Keith says that farming is in his blood. "I grew up farming and it was the only thing I wanted to do." Keith's son, Cory, now farms with Keith, and Keith hopes that his grandchildren will become seventh generation farmers in Boulder County.

## Sustainability Success!



### MARK GUTTRIDGE

As a child, Mark Guttridge lived a typical country kid's life on his grandmother's six acres of land off of Hover Road. He played in the creeks and ditches; raised sheep, chickens, rabbits and vegetables for 4H to show at the Boulder County Fair; and participated in his family's self-sufficient lifestyle by preserving food. Yet like most children, Mark couldn't wait to move away from home, and he left to study Environmental Engineering at Southern Methodist University in Dallas. After travelling around the world, Mark returned to Colorado to get his Master's degree in Water Resource Engineering at the University of Colorado.

Mark and his wife, Kena, along with their two older daughters, moved back to his grandmother's property six years ago.

While Mark worked 40 hours a week as an environmental consultant, the family planted what turned out to be an oversized vegetable garden in an effort to live more sustainably on their property. After sharing the resulting abundance of vegetables with all of their friends and neighbors, Mark and Kena turned to the Niwot Market to help distribute the remaining produce. The following year, the Guttridges began selling at the Longmont Farmers' Market, and three years ago, they started leasing 18 acres that surround their farm from Boulder County Parks and Open Space (POS).

Mark categorizes the POS leasing program as "unique" in that it supports the creation of new farms and gives beginning farmers the chance to start and expand their farming operations. With the additional acreage from POS, Ollin Farms is now a growing venture for his family, which has grown to include two more daughters, and is further providing the local community with fresh vegetables that are available at the Longmont Farmers' Market, the seasonal farm stand at Ollin Farms, and through the sale of Community Supported Agriculture (CSA) shares to individuals and families. While Mark has yet to quit his environmental consulting job, he does plan to "farm for the rest of my life or until I can't move."

## TAKE ACTION

*Locavore: A person who endeavors to eat only locally produced food*  
—New Oxford American Dictionary 2007 Word of the Year

### HOW TO BE A BOULDER COUNTY LOCAVORE

The concept of eating local is an old idea that is suddenly very new again. Yet if you were to ask 10 different people what their definition of local food is, you likely will get 10 different responses. One person may think a food is local only if it was produced four miles from where he or she is standing, while another might think that anything grown or produced within 400 miles counts as local food. To assist you, we offer our guide on how to eat locally in Boulder County:

#### 1. Live in the right place:

Thanks to the foresight of its leaders and the generosity of its citizens, Boulder County has permanently preserved nearly 25,000 acres of land suited for agricultural production.

#### 2. Learn about the farming activities happening around you:

From small, quarter-acre vegetable farms to medium-sized cattle operations to large-scale wheat production, Boulder County produces a variety of foods for you to enjoy year-round.

#### 3. Participate in the local food economy:

Join a CSA and shop at your local farmers' market. Buy your meat from a local producer. Ask your grocer to stock more local food products. Learn about the food loops happening in Boulder County. For example, did you know that all of the wheat grown in Boulder County is processed only 40 miles away and returns to Boulder County labeled as 240 different brands of flour?

#### 4. Learn more about the people who farm and ranch in Boulder County:

When they're not in their fields, you can find them at the farmers' market or hanging out at their farm stands or attending the Boulder County Fair. Stop to say hello. Each summer, Boulder County Parks and Open Space (POS) offers a number of farm tours where you can meet the many farmers and ranchers who lease county properties and hear from them firsthand what it is like to be a Boulder County producer.

#### 5. Grow and preserve your own food:

Plant basil in a window box, turn over a patch of grass for a small garden, or buy a few chickens for your north 40 (feet that is). Don't have the skills for growing and preserving all of that food? Talk to Boulder County's Colorado State University Extension office to learn about classes they offer in all things self-reliant.

**6. Participate in Boulder County's "Food Day."** Food Day is a national effort to promote local agriculture; to curb obesity by promoting a healthy and safe diet; and to address hunger and food deserts. Visit [FoodDayBoulderCounty.org](http://FoodDayBoulderCounty.org) to learn more.

Now take the time to enjoy the food growing around you!

# TRANSPORTATION



# TRANSPORTATION

## INTRODUCTION

In December of 2009, the Boulder County Commissioners adopted an update to the Transportation Element for the Comprehensive Plan to provide new direction for transportation projects, programs and spending. The 2009 update changed the traditional focus of the transportation department from moving vehicles to moving people, allowing alternative transportation modes such as transit, walking and biking to become equally important in transportation planning.

The Transportation Element of the Boulder County Comprehensive Plan (BCCP) identifies strategies that will facilitate the reduction of vehicle miles traveled (VMT) and also includes policy directions and proposed improvements, such as FasTracks, for a more sustainable transportation system.

For the past two years, the Boulder County Transportation Department has been developing a Transportation Master Plan, which takes the direction of the update and recommends project funding for specific road corridors, transit routes, bridges, shoulder projects and transportation demand-side management programs such as the EcoPass. The creation

of the Transportation Master Plan afforded an opportunity to strengthen regional collaboration among many public and private agencies with an interest in transportation, including municipalities, Regional Transportation District (RTD), Colorado Department of Transportation (CDOT), Denver Regional Council of Governments (DRCOG) and other special districts. Public hearings and open houses were held throughout the development of the plan to help guide the transportation priorities and outcomes.

Moving forward, Boulder County Transportation will continue to focus on projects that reduce reliance on non-renewable energy sources while maintaining or expanding mobility for county residents, employees and visitors. Whether working toward developing better transportation infrastructure, new bicycle facilities, improved trails, cleaner vehicles or better transit services, Boulder County places a high priority on a sustainable transportation system. Boulder County's policies and programs support the use of alternative transportation and fuel-efficient vehicles in order to decrease the emissions of our existing vehicle fleet. The results are cleaner air, reduced traffic congestion and decreased reliance on non-renewable energy resources.

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Boulder County was awarded funding to conduct a First and Final Mile study to develop multimodal connections to regional bus stops along US36. Proposed strategies include eGO CarShare, Boulder B-cycle, and bus-then-bike shelters for long-term bike parking.

# TRANSPORTATION

## TRANSPORTATION GOAL

Encourage environmentally sustainable transportation choices and infrastructure, and support healthy, active lifestyles for all Boulder County residents

### INTERNAL

#### TARGET 1

Ensure that Boulder County's internal transportation operations use sustainable practices and technology

### INTERNAL

#### TARGET 2

Net-zero trips: Establish projects and programs to keep the absolute number of employee commute trips at or below the September 2012 level

### SHORT-TERM STRATEGIES

#### STRATEGY 1

Purchase the lowest fuel-use vehicles practical for the county fleet

#### STRATEGY 2

Lead in the adoption of hybrid, plug-in hybrid and electric vehicle use

#### STRATEGY 3

Promote the use of locally sourced biofuels derived from local waste oil for the Boulder County vehicle fleet

### SHORT-TERM STRATEGIES

#### STRATEGY 1

Create a baseline of the current total vehicle trips by employees; calculate the average weekly vehicle trips made per Boulder County employee

#### STRATEGY 2

Continue to offer transportation incentives to full-time employees, such as RTD EcoPasses, vanpool subsidies, Bike to Work Day incentives, bike parking and usable showers within each building

#### STRATEGY 3

Continue to provide transportation incentives to non full-time employees

#### STRATEGY 4

As additional employees are hired, calculate the vehicle trips that must be reduced to maintain a net-zero increase in trips and create new programs to mitigate additional trips such as: parking cash-out programs, commute challenges with prizes, restricted employee parking, paid parking and increased access to pool cars

# TRANSPORTATION

## INTERNAL

### TARGET 2 CONT.

Net-zero trips: Establish projects and programs to keep the absolute number of employee commute trips at or below the September 2012 level

## INTERNAL

### TARGET 3

Commute inventory: Develop a complete understanding of the environmental and economic impacts of Boulder County employee commute behaviors

## SHORT-TERM STRATEGIES

### STRATEGY 5

Each time large shifts in employee locations are planned, estimate the additional vehicle trips that will be made as a result of the move and address methods to reduce total trips elsewhere

### STRATEGY 6

Once a baseline of vehicle trips is established and the net-zero vehicle trips program is established, aim to reduce the number of vehicle trips by a small percentage each year

## SHORT-TERM STRATEGIES

### STRATEGY 1

Calculate current energy use, greenhouse gas (GHG) emissions and cost impact of employee daily commutes

### STRATEGY 2

Once the data has been calculated and analyzed, communicate this information to Boulder County employees in an effective way

## EXTERNAL

### TARGET 4

Increase modal choice and decrease the single occupancy vehicle (SOV) share of local and regional trips

## SHORT-TERM STRATEGIES

### STRATEGY 1

Continue to develop Boulder County's multimodal transportation infrastructure including developing transit, bicycle, and pedestrian elements in roadway infrastructure design; increasing transit service frequencies; expanding travel demand management programs; and developing off-street bike and pedestrian facilities

### STRATEGY 2

Develop transportation solutions with Boulder County communities to establish multimodal connections between regional transit

### STRATEGY 3

Establish partnerships and develop joint projects with Boulder County Public Health and other agencies to promote active transportation and influence public health outcomes through transportation improvements and services

>For more information, see the Boulder County Transportation Master Plan [BoulderCounty.org/roads/plans](https://BoulderCounty.org/roads/plans)

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In 2010, Boulder County completed the Mountain Community Transit Study, which looked at extending transit and rideshare programs into the western part of the county. As a result of this study, the county began transit services between Jamestown and the City of Boulder.

## EXTERNAL

### TARGET 4 CONT.

Increase modal choice and decrease the single occupancy vehicle (SOV) share of local and regional trips

## EXTERNAL

### TARGET 5

Reduce barriers to using the transportation system and expand transportation programs and services that meet the needs of low-income individuals and families, seniors, and people with disabilities

## EXTERNAL

### TARGET 6

Have land use decisions incorporate smart growth principles, such as transit-oriented development and walkable communities

## LONG-TERM STRATEGIES

### STRATEGY 4

Update transportation policies, plans and standards to incorporate new travel technologies into the design of transportation infrastructure

### STRATEGY 5

Complete implementation of the Boulder County Transportation Master Plan recommendations

## SHORT-TERM STRATEGIES

### STRATEGY 1

Explore ways to fund and implement an RTD EcoPass for county residents

needs as identified in agency programs and plans

### STRATEGY 2

Continue to establish partnerships and undertake joint initiatives with Boulder County Community Services, Boulder County Health and Human Services, and other agencies to meet transportation

### STRATEGY 3

Continue active partnerships with U.S. 36 Mayors and Commissioners' Coalition, RTD and the state to implement bus rapid transit on U.S. 36, and to complete rail or bus rapid transit to other communities

## SHORT-TERM STRATEGIES

### STRATEGY 1

Locate county buildings, including housing, in areas that have easy access to services and the multimodal transportation system, including regional transit

in a manner that helps achieve regional sustainability goals, as identified by the Denver Regional Council of Governments' long-range plan for the metropolitan area, including Boulder County

### STRATEGY 2

Encourage Boulder County communities to locate and design new development

> See "Air Quality" and "Climate" sections for additional emissions reductions strategies and vehicle efficiency strategies.



LEADS THE WAY

COUNTY

Boulder County provides each of its employees with an RTD EcoPass, providing free, unlimited transit for local and regional buses and light trails in the Denver metro area. People with EcoPasses are seven-to-nine times more likely to take transit, significantly reducing vehicle miles travelled around the county.

One county employee, Pete Fogg (pictured above), stopped driving to work entirely about 10 years ago. Pete says “it wasn’t for any great environmental reason,” but rather to get rid of the “economic and time annoyance” of dealing with a car at work. To Pete, “driving on Highway 36 is like getting into a

meteor storm every day,” and he disliked the hassle of feeding meters, moving his car during the day and sitting in traffic.

Pete lives in Denver, about a mile from a light rail station, and his typical commute includes a short walk, a train ride and a bus trip. To Pete, he was afraid he’d miss his personal time with the radio every day, but he’s found it easy to adjust to reading a book or taking a nap on his commute. He says, “It’s a real benefit, physically and mentally. It’s much more relaxing. Oh, and the cost savings are a real plus.”

## Sustainability Success!

Mobility for All is a county initiative designed to help meet the needs of transportation-disadvantaged persons, including:

- Low-income individuals and families
- People with disabilities
- Seniors
- People who do not drive or have access to a personal motor vehicle

Mobility for All provides:

- Subsidized transit for low-income persons in county case-managed programs to ensure access to jobs, job interviews and educational opportunities;
- EcoPasses to three Boulder County Housing Authority sites

- Improved transportation service coordination with human service agencies and transportation providers
- Improved ability to serve more people with existing resources
- Support for regional efforts to increase access to transportation services for people with disabilities

Mobility for All has helped hundreds of low-income persons to maintain access to employment or employment-related activities as a result of subsidized transit assistance. Boulder County also helped form a Local Coordinating Council with participation from more than a dozen local non-profit human service agencies, several transportation providers and people with disabilities.

## *Sustainability Success!*

In December 2010, Boulder County and the Town of Lyons implemented the first-ever community-wide EcoPass program. An innovative and cost-effective approach to increasing transit ridership, the Lyons Community EcoPass Program provides every town resident with a free EcoPass that can be used on any route within RTD's vast service area (covering the entire Denver metropolitan region). The Lyons Community EcoPass Program is open to all full-time residents of the Town of Lyons, including its low-income and elderly residents, who often have difficulty accessing adequate transportation. Because of its success, the Lyons Community EcoPass program now serves as a model program and is being replicated in other communities throughout the region, including the Town of Nederland.



## POLICY PRIORITIES

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*Support the Development of Sustainable, Multi-Modal Transportation Systems and Alternative Modes of Transportation*

Boulder County supports state and federal transportation legislation with a strong multimodal focus and investment in a regional transportation system that reduces reliance on fossil fuels. Examples include timely completion of a transit system that connects the entire Denver metropolitan region (such as FasTracks, approved by voters in 2004); protecting the federal “Enhancements” funding category, which is a primary funding source for developing multimodal infrastructure through safe bikeways and walkways; managed High Occupancy Vehicle (HOV)/transit lanes; transportation demand management; and other transit services and programs that provide people with modal choice.

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*Support the Advancement of Fuel-Efficient Vehicle Usage and Investment in Related Technology and Infrastructure*

Expanding the use of fuel-efficient vehicles and the necessary infrastructure to support them would play an important role in achieving greenhouse gas emissions reductions from the transportation sector, advancing

Colorado’s statewide carbon reduction goals and reducing dependence on foreign oil. Policy approaches that support the use of fuel-efficient vehicles include: Investment in electric and plug-in hybrid-electric vehicle charging infrastructure; vehicle-to-grid technology, which enables electric and hybrid-electric vehicles to “plug” into the electric grid and provide power during the many daily hours that those vehicles sit idle; fee-bate incentives for the purchase of highly fuel-efficient vehicles, charging purchasers of less fuel-efficient vehicles a fee which is then provided in the form of a rebate to purchasers of more fuel-efficient vehicles; and federal greenhouse gas and fuel economy standards—also known as “clean car” standards.

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*Support Legislative and Other Efforts To Link Land Use and Transportation Planning and Investment*

Consistency between land use planning and transportation investment will result in decreases in greenhouse gas emissions, fossil fuel consumption and transportation infrastructure costs, while optimizing the use of existing infrastructure and amenities that require land use planning and transportation investment.

## POLICY PRIORITIES CONT.

### *Support Expanded Mobility Options for Seniors, Youth and the Disabled*

Access to mobility options is critical to ensuring that our seniors, youth and disabled enjoy a high quality of life. Boulder County supports federal efforts such as The Senior Transportation and Mobility Improvement Act of 2011 that seek to strengthen existing public transit programs for these populations by giving states increased flexibility to utilize federal transportation funds, providing technical assistance and seed grants to innovative community programs, and establishing a mobility management program for older adults and people with disabilities.

### *Support Legislation to Provide a Pay-As-You-Go Auto Insurance Option For Colorado Drivers*

By calibrating the costs of auto insurance to the number of miles driven, drivers will be incentivized to drive less as a means of reducing their transportation costs. Such legislation could also play an important role in achieving greenhouse-gas emissions reductions from the transportation sector and advancing Colorado's statewide carbon-reduction goals.

## TAKE ACTION

Personal vehicles are one of the largest local sources of carbon emissions and toxins that harm our air quality. Use the rule of 10—just once every 10 work days, try riding your bike or taking the bus instead of driving.

You can plan your route with the help of Google maps, which now contains instructions for RTD buses and even bike paths around Boulder County.



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

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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.



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: H<sub>2</sub>O 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

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### *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.

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### *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.

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### *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

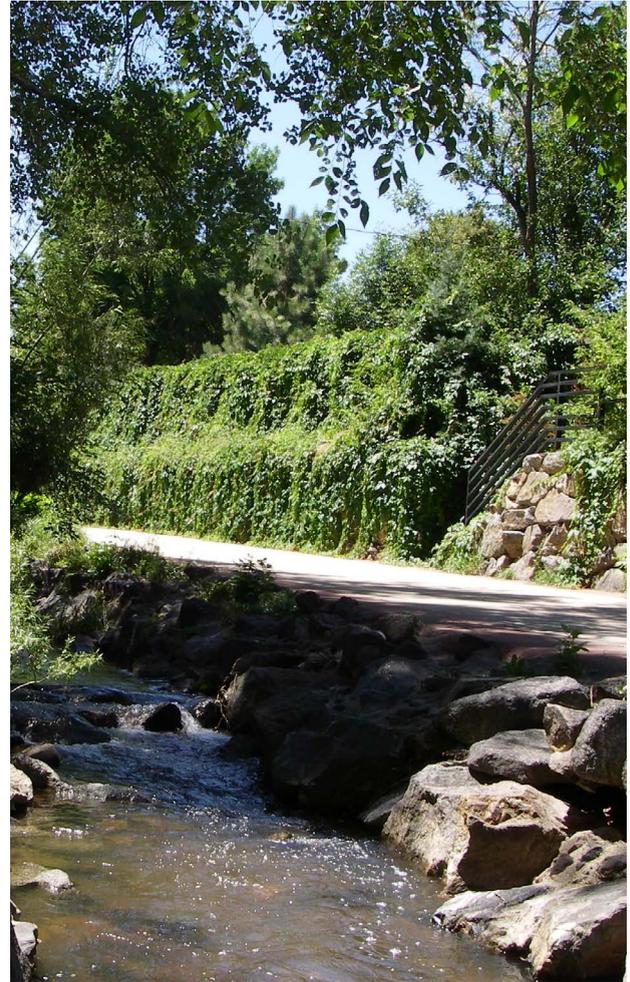
## POLICY PRIORITIES CONT.

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

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### *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.

ZERO WASTE



# ZERO WASTE

## INTRODUCTION

“Zero Waste or Darn Near” is Boulder County’s commitment to sensible resource management in government operations, where staff won a 2012 state award for reducing solid waste by 69% in county buildings. Boulder County is equally committed to developing policies, programs and infrastructure that will help residents and businesses recycle traditional and hard-to-recycle materials, compost at home and at work, and safely manage the hazardous materials that are associated with many home care and

automotive products, including oil paints and antifreeze. The jobs that are created in the reuse and recycling industries—from used building material outlets to compost facilities—help strengthen the Boulder County economy.



## ZERO WASTE GOAL

Become zero waste and manage resources responsibly and effectively

### INTERNAL

#### TARGET 1

Increase internal county diversion to 85% by 2020

### INTERNAL

#### TARGET 2

Comply with Boulder County internal zero waste purchasing policies to support recycling and composting programs as well as the development of markets for recycled products and local compost

### SHORT-TERM STRATEGIES

#### STRATEGY 1

Increase composting by county employees to achieve 85% waste diversion; continue education about including soiled paper in compost stream

#### STRATEGY 2

Continue to divert construction materials from internal county building projects

### LONG-TERM STRATEGIES

#### STRATEGY 3

Maximize waste diversion by county employees to meet or exceed the county's goal of "Zero Waste or Darn Near" by 2025

### SHORT-TERM STRATEGIES

#### STRATEGY 1

Purchase recycled-content paper and other office supplies; buy compostable food service items marked "BPI certified compostable" when possible; buy rechargeable batteries, reusable cups and other reusable items when possible

#### STRATEGY 2

Avoid brightly colored papers, which are not easily recycled and thus contaminate the recycling stream

#### STRATEGY 3

For print and copy jobs—use the highest post-consumer recycled content paper available.

#### STRATEGY 4

Discourage bottled water for county sponsored meetings and events when tap water is available; discourage the use of bottled water dispensers in county buildings

## INTERNAL

### TARGET 2 CONT.

Comply with Boulder County internal zero waste purchasing policies to support recycling and composting programs as well as the development of markets for recycled products and local compost

## SHORT-TERM STRATEGIES CONT.

### STRATEGY 5

Purchase compost from permitted Colorado processors and show the U.S. Composting Council Seal of Testing Assurance

## LONG-TERM STRATEGIES

### STRATEGY 6

Continue to participate in the State Electronics Challenge, which tracks purchases and management of computers, monitors, phones, printers and copiers for compliance with national ENERGY STAR and EPEAT programs

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Boulder County is committed to discouraging bottled water and bottled water dispensers at county meetings and in county buildings when tap water is available.

## EXTERNAL

### TARGET 3

Construction materials diversion: Divert 60,000 or more tons of construction waste per year from disposal (estimated 27% of waste stream)

## SHORT-TERM STRATEGIES

### STRATEGY 1

Support capacity for construction and demolition transfer, sorting, and possible processing

### STRATEGY 2

Require construction and demolition project recycling and reuse in additional sectors

### STRATEGY 3

Include clean, damaged dimensional lumber in slash management programs

## LONG-TERM STRATEGIES

### STRATEGY 4

Require trees and slash from clearing and landscaping to be diverted from the landfill

> For a full list of strategies and descriptions of these strategies, please view the Zero Waste Action Plan: [BoulderCounty.org/find/library/gogreen/2010.pdf](https://BoulderCounty.org/find/library/gogreen/2010.pdf)

## EXTERNAL

### TARGET 4

Compost: Divert 42,060 or more tons of compost per year from disposal (estimated 12.2% of waste stream)

## SHORT-TERM STRATEGIES

### STRATEGY 1

Support capacity for additional composting

### STRATEGY 2

Provide curbside collection of compostable materials

### STRATEGY 3

Support total at-home composting program

### STRATEGY 4

Support opportunities for tree limb management

## LONG-TERM STRATEGIES

### STRATEGY 5

Support multifamily compost collection system

## EXTERNAL

### TARGET 5

Commercial diversion:  
Divert 8,350 or more tons of commercial waste per year from disposal (estimated 2.8% of waste stream)

## EXTERNAL

### TARGET 6

Reduce toxicity of materials purchased in Boulder County and divert more than 430 tons per year of hazardous material from landfill

## SHORT-TERM STRATEGIES

### STRATEGY 1

Provide commercial volume-based collection with enhanced recycling programs, including incentives for businesses to adopt zero-waste collection programs through coupons for services

### STRATEGY 2

Provide free waste audits for businesses and support for zero waste implementation by expanding outreach and advising services currently being provided through Boulder County Public Health's Partners for A Clean Environment (PACE) program

### STRATEGY 3

Update land use codes to improve commercial and multifamily recycling requirements

## LONG-TERM STRATEGIES

### STRATEGY 4

Support commercial food composting

### STRATEGY 5

Provide single-stream, multifamily recycling collection countywide

### STRATEGY 6

Support bans on sending recyclables, yard waste and food waste to the landfill

### STRATEGY 7

Provide zero-waste building planning assistance

### STRATEGY 8

Promote markets for county-generated recyclables and compost

## SHORT-TERM STRATEGIES

### STRATEGY 1

Increase diversion of hazardous materials by expanding business drop-off at the Hazardous Materials Management Facility

### STRATEGY 2

Educate consumers and businesses to reduce the purchase and use of toxic and hazardous products

### STRATEGY 3

Educate students about hazardous

materials through in-school presentations and projects

### STRATEGY 4

Increase collection of residential and commercial hazardous materials at the Hazardous Materials Management Facility

### STRATEGY 5

Increase electronics collection

## EXTERNAL

### TARGET 6 CONT.

Reduce toxicity of materials purchased in Boulder County and divert more than 430 tons per year of hazardous material from landfill

## LONG-TERM STRATEGIES

### STRATEGY 6

Maximize collection of residential and commercial hazardous materials to eliminate landfill disposal

*> For a full list of strategies and descriptions of these strategies, please view the Zero Waste Action Plan: [BoulderCounty.org/find/library/gogreen/zwap2010.pdf](http://BoulderCounty.org/find/library/gogreen/zwap2010.pdf)*

## EXTERNAL

### TARGET 7

Other Strategies: Divert additional 46,000 or more tons per year from disposal (estimated 21% of waste stream)

## SHORT-TERM STRATEGIES

### STRATEGY 1

Cultivate municipal contacts and advocates

### STRATEGY 2

Develop zero waste branding and initiate comprehensive education program

### STRATEGY 3

Provide residential volume-based collection with embedded recycling

### STRATEGY 4

Support opportunities for waste diversion and reuse at spring cleanup events in mountain communities

### STRATEGY 5

Provide zero waste education and support zero waste collection systems in schools

### STRATEGY 6

Offer metal recycling at additional locations

## LONG-TERM STRATEGIES

### STRATEGY 7

Require zero waste planning for large events on public property

## EXTERNAL

### TARGET 8

Increase waste prevention through product stewardship programs in the county

## POLICY PRIORITIES

### SHORT-TERM STRATEGIES

#### STRATEGY 1

Promote voluntary product stewardship opportunities offered by retailers and manufacturers

#### STRATEGY 2

Support and advocate for product stewardship initiatives at the state and local level

### LONG-TERM STRATEGIES

#### STRATEGY 3

Have the Resource Conservation Advisory Board identify a list of “priority items,” and encourage manufacturers or retailers to charge “Advanced Disposal Fees”—such as the fees charged on tires—that will help cover the eventual cost of disposal

> For a full list of strategies and descriptions of these strategies, please view the Zero Waste Action Plan: [BoulderCounty.org/find/library/gogreen/zwap2010.pdf](http://BoulderCounty.org/find/library/gogreen/zwap2010.pdf)

### *Support Legislation and Other Means for Promoting Product Stewardship*

Boulder County supports legislation, regulation or other means for promoting product stewardship by manufacturers and consumers, in order to decrease waste and the harmful effects of toxic materials in waste and packaging. Product stewardship can achieve corporate and consumer responsibility through regulation at the manufacturing level and attribution of consumer responsibility, for example labeling of pesticides, disposal fees and advance disposal fees, national bottle law and bottle deposits, computer take-back, and control of toxics, particularly in electronics.

### *Support Legislation Promoting Waste Reduction and Diversion to Increase the Level of Waste Reduction In Colorado and to Provide Coloradans with Increased Access to Waste Reduction Services*

Boulder County has long been a leader in implementing progressive policies and programs to increase recycling and waste reduction opportunities for county residents and businesses. In 2010, the county adopted a Zero Waste Action Plan, identifying steps county residents, businesses and governments can take to reach an ultimate goal of zero waste by 2025. The plan estimated Boulder County’s existing diversion rate at about 35% through reuse, recycling and composting programs. Expanding waste diversion efforts across the state will complement and support Boulder County’s zero waste goals.



LEADS THE WAY

In 2005, when Boulder County first adopted a resolution calling for “Zero Waste or Darn Near” in countywide operations by 2020, Boulder County was one of a handful of governments in the nation setting such a bold goal. Now, communities from Austin to San Francisco are setting zero waste targets that encourage recycling, composting and hazardous materials reduction not only in government operations, but among residents and businesses as well.

In 2012, Boulder County won a state award for government waste reduction: In County operations, waste diversion has risen from 27% in 2008 to nearly 70% in 2011, thanks to convenient recycling and composting opportunities in all county buildings and an aggressive employee education program.





## TAKE ACTION

Residents and businesses in Boulder County can do more than recycle and compost to help the county achieve zero waste. Try these extra steps:

- Buy in bulk to reduce purchases.
- Cook at home.
- Take hard-to-recycle materials to Boulder's CHaRM facility.\*
- Seek out locally produced mulch and compost to use in your yard.
- Tour the Boulder County Recycling Center and visit the Hazardous Materials Management Facility, both near the intersection of 63rd and Arapahoe in Boulder.\*
- Visit a Partners for a Clean Environment (PACE) certified business that has earned a Zero Waste Area of Excellence rating.
- Take a reusable cup or refillable water bottle when you go out.
- Use recycling bins in parks and other public places.
- Buy paper, greeting cards and other products made from recycled materials.
- Watch a recycling education video online.
- Sign up for one of Boulder County's compost workshops.

\* Visit **[BoulderCountyRecycles.org](https://www.bouldercountyrecycles.org)** for maps and more tips.



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