

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.

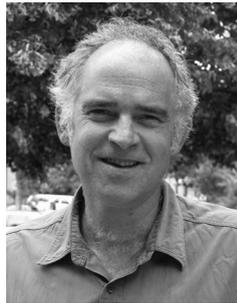
Cindy Domenico, Will Toor and Deb Gardner
Board of Boulder County Commissioners overseeing the development of the plan
Summer/Fall 2012

SUSTAINABILITY PLANNING COMMITTEE

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*

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

Boulder 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

Within 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

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
- 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

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
- 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
- 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.

AIR QUALITY

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

CLIMATE

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

ECOLOGICAL HEALTH

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

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

HEALTH & WELLNESS

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

LOCAL FOOD & AGRICULTURE

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

TRANSPORTATION

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

WATER

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

ZERO WASTE

Become zero waste and manage resources responsibly and effectively