

2

climate



INTRODUCTION

This is a crucial moment. The latest report from the Intergovernmental Panel on Climate Change (IPCC) warns that the window of opportunity to avert climate catastrophe is rapidly shrinking, and limiting average warming to 1.5°C over the next 10 years is critical to prevent the worst effects of climate change.¹ We have already reached 1.1°C of temperature increases globally,² and without immediate reductions in pollution, it is likely Earth will exceed 1.5°C of warming at least once this decade.³



Nothing less than our future and the fate of humankind depends on how we rise to the climate challenge.

—Antonio Guterres, UN General Secretary



For every fraction of a degree of warming, the threats to our natural and human systems compound and become more complex. An analysis of today's climate commitments and

emissions trajectories puts the world on track to exceed 3.2°C of warming this century, more than double the critical threshold.⁴ This level of warming would have catastrophic

glossary

BENEFICIAL ELECTRIFICATION

Beneficial electrification refers to the systematic replacement of fossil fuel equipment with electrically powered alternatives in a way that reduces overall emissions and energy costs. Examples include switching an internal combustion engine vehicle to an electric vehicle (EV) or switching a natural gas furnace to an electric heat pump.

CARBON NEUTRALITY

Achieving carbon neutrality means that any emissions produced are balanced by the emissions absorbed from the atmosphere in carbon sinks. We are aiming to achieve net zero greenhouse gas (GHG) emissions by 2035 through a variety of climate actions.



effects across all human and natural ecosystems, with disproportionate suffering occurring in historically marginalized communities

Human activity, specifically the combustion of fossil fuels, has driven climate change and increased global temperatures. The good news is that we have the technology, policies, and plans to stave off the worst impacts of

climate change.⁵ However, this will not be easy. All models limiting warming to 1.5°C require immediate and deep GHG pollution reductions across all sectors of the economy. The longer we delay action, the more drastic these cuts—and their associated costs—will be.⁶ Alongside efforts to cut carbon pollution, the implementation of adaptation and resilience measures is crucial in order to protect our

communities, particularly communities that are disproportionately impacted by the dangers of a warmer planet.

Such global problems demand civilization-level transformation of the energy and economic structures we've relied upon since the Industrial Revolution. However, great change can and must begin at a more local level. As a leader in climate action, Boulder County is committed to the radical transformation needed to meet this challenge. Through internationally recognized programs and policies that foster innovation, coalition building, and equitable outcomes, Boulder County is focused on cutting emissions (also known as mitigation), removing carbon dioxide from the atmosphere, and supporting systemic change to fight the climate crisis. While the role of individual communities is essential, Boulder recognizes the need to look beyond its borders. To bring about the change needed to combat a crisis at this scale, we are advocating for aggressive policy and systemic change at the state, federal, and global level.



climate goal

Achieve rapid and deep emission reductions and increase resilience to the impacts of climate change.

emissions goal

Reduce countywide GHG emissions by 80% over 2021 levels by 2030 and achieve carbon neutrality by 2035.



MEETING OUR GOALS

Carbon Neutrality Strategies

To align with science-based targets and the IPCC's call for limiting warming to 1.5°C, Boulder County has updated its emissions reduction goal. Boulder County is now committed to reducing countywide emissions 80% over 2021 levels by 2030 and achieving carbon neutrality by 2035.

In setting this goal, Boulder County recognizes that it does not exist in a vacuum, and that entire economic systems and structures will need to shift in order to deliver on this promise to our community. Reaching this target will require an “all hands on deck” approach, with every community member, business, and political leader contributing to this work.

Guided by data from the community GHG inventory, Boulder County developed climate mitigation strategies by sector that will support the county and community at-large in meeting these GHG reduction and carbon neutrality goals. The GHG inventory includes an analysis of emissions from residential and commercial building energy, transportation, industrial processes, oil wells, and waste sectors. Through the analysis of sectors and sources that are the greatest emitters, Boulder County can prioritize strategies with the greatest emissions reduction potential.

In addition to our traditional community GHG inventory, Boulder

County also conducted a consumption-based emissions inventory [SEE PAGE 53 FOR MORE]. The information from these analyses combined offers a full scope of the community's carbon pollution and where resources can be directed to reduce that pollution.

Additionally, and crucial to meeting the community carbon neutrality goals, Boulder County is also leading innovative work to reduce carbon in the atmosphere through carbon dioxide removal (CDR) and nature-based solutions.

“

We have two urgent challenges ahead of us. Adaptation and mitigation. Financing, visionary political initiatives, and concrete actions are needed for the sake of the welfare of current and future generations and our planet.

—Professor Petteri Taalas, World Meteorological Organization General Secretary

”



Recent Climate Successes



44 PIECES
of climate-related state
legislation engaged with
during the 2021 session



**40 RESTAURANTS
AND FOOD BUSINESSES**
funding Restore Colorado grants to improve
soil health and sequester carbon on local farms



41% OF HOUSEHOLDS IMPACTED BY THE MARSHALL FIRE
are rebuilding according to standards that earn incentives for
high-performance homes using less energy and little to no
fossil fuel energy (as of September 2022)



3,063 BUSINESSES
received energy efficiency upgrades through
Partners for a Clean Environment, saving a
cumulative \$2,800,000 in annual utility bills



1,329 ACRES
of agricultural land implementing by
regenerative farming and ranching
practices supported by county grants



GOING DEEPER

Impacts in Boulder County

Scientists agree that the climate crisis is happening here and now. Colorado’s average temperatures increased by 2°F between 1977 and 2007 alone.⁷ Boulder County residents are experiencing impacts of the climate crisis in the form of high heat days, extreme weather, drought, poor air quality, unpredictable precipitation, and catastrophic wildfires. As temperatures rise, the number of extreme weather events and wildfires will increase. At the same time, Colorado’s wildfire season is getting

longer. Scientists say that “climate change is playing a significant role” in the frequency and intensity of these events.⁸ Climate-related disasters are personally impacting residents of Boulder County while also becoming more pervasive regionally.

Climate impacts also carry an enormous price tag for local governments. Boulder County has been in a continuous state of disaster recovery since the 2010 Four Mile Canyon Fire. Due to the increased

frequency of climate-fueled disasters, the county created a permanent Recovery and Resilience Division. In the next 30 years, it is estimated that Boulder County will spend more than \$100 million in additional costs just to adapt transportation and drainage systems for future climate risks.⁹

The impacts of the climate crisis on quality of life in Colorado are deeply concerning. According to researchers at the University of Colorado, local effects of the climate crisis include:

CHANGES TO AVERAGE SEASONAL TEMPERATURES

- **Hotter summers**—By 2050, more than half of summer days will reach temperatures over 95°F. From June 1–July 31, 2022, the Boulder area experienced more than 30 days of temperatures above 90°F.¹⁰
- **Warmer winters**—Snowpack will be thinner and spring runoff will be earlier. 2020 was one of Colorado’s hottest and driest years.¹¹

CHANGES TO THE WATER CYCLE AND WATER QUALITY AND AVAILABILITY

- **Changing precipitation**—We will see more rain than snow.
- **Water shortages**—Colorado’s water supplies are drying up, with precipitation decreasing by 20% in the last century. Mountain snowpack serves as a natural reservoir, but less snow and earlier melting will reduce summer water availability and lead to drier soils and vegetation, exacerbating the risk of forest fires and forest pest infestations.

Reduced water availability also lowers agricultural yields, further compounding economic risks to farming communities and our growing population.

- **Increased frequency and intensity of flooding events**—Extreme precipitation events are becoming more common, and persistent drought impacts the ability of soils to absorb excess moisture. When combined, these two factors increase the risk of severe flood events. Culverts, roadways, and bridges damaged during flooding in 2013 are still being repaired, representing almost a decade of financial impacts from a single extreme precipitation event.



- **Longer periods of drought**—The length and frequency of droughts are driven by reduced precipitation and hotter temperatures. The Western U.S. is in the midst of a 20-year-long drought with no end in sight; this is the worst drought in 1,200 years.¹²

CHANGES IMPACTING OUR FOREST ECOSYSTEMS:

- **More fire danger**—Twice as many acres will burn annually in Colorado, compared to pre-1980 averages. Boulder County’s mid-winter Marshall Fire was the most destructive fire in state history.
- **Widespread beetle infestations**—Rising winter

temperatures have supercharged population growth in some beetle species. Mountain pine beetles have wiped out millions of acres of forest in Colorado and borer beetles are killing aspen stands, increasing dry fuel for wildfires and destroying forests that are relied on as habitat and carbon sinks.

CHANGES IMPACTING OUR COMMUNITIES:

- **Health problems**—Hotter temperatures increase the prevalence of wildfire smoke and the formation of ozone. Both affect human health by reducing lung function, aggravating asthma, and causing permanent lung damage. Even short-term exposure to ozone may cause shortness of breath and chest pain.¹³
- **Economic impacts**—The projected cost of adapting to just some of the climate impacts facing Boulder County, such as retrofitting buildings and infrastructure due to high heat only, is anticipated to exceed \$100

million by 2050.¹⁴ These costs are borne by government, private landowners, and homeowners. The Marshall Fire resulted in \$1 billion worth of damages and left many homeowners unable to afford to rebuild the same homes they lost.

- **Global environmental justice impacts**—Climate change is one of the most widespread manifestations of environmental injustice facing humankind. Climate change disproportionately impacts and threatens communities of color and low-income communities.^{15, 16} Not only are these communities more severely exposed to the effects of climate change like extreme heat, poor air quality, and unpredictable precipitation, but they also have a harder time recovering from climate-related disasters. In fact, many people in the global south have been or will be displaced from their homes due in large part to climate-related disasters and slow onset events (such as drought, sea level rise, and desertification).¹⁷

Many predict that permanent displacement due to climate impacts will result in the greatest wave of global migration the world has ever seen.¹⁸ Moreover, communities with fewer resources contribute the least amount to the climate crisis. It's essential that communities vulnerable to climate risk have access to support and resources to adapt to and recover from climate impacts and disasters. Ultimately, we recognize that climate change and environmental justice are inextricably linked and we are prioritizing solutions that focus on our communities most vulnerable to climate risks.

It is important to understand that these trends will become more severe as climate change accelerates. While the last six months of 2021 represented the hottest half-year on record for Colorado,¹⁹ it may very well be the coolest year for generations to come if we do not take bold and immediate action to mitigate climate change.



GOING DEEPER

Equity Impacts

- Low-income communities and communities of color are more likely to be exposed to climate change threats due to inadequate housing and infrastructure.
- Low-income households spend three times as much of their income on energy than middle- and high-income households, despite consuming less energy. As temperatures rise, so too will the amount these families spend on household cooling.
- Affordable housing developments on the edges of urbanized areas are at higher wildfire risk. These households often have fewer resources to recover from such disasters.
- Low-income communities suffer disproportionately from health problems such as heart disease and asthma, as well as mental health issues. These challenges would be exacerbated by climate-related impacts like poor air quality, high heat, and wildfires.



GOING DEEPER

The Marshall Fire

On December 30, 2021, the Marshall Fire swept through the City of Louisville, Town of Superior, and unincorporated Boulder County. This unprecedented winter firestorm was fueled by a 20-year-long drought, dry grasses, a three-foot snow deficit, and Chinook winds.²⁰ Damages totaled more than \$1 billion, making the Marshall Fire one of the most expensive wildfires in national history.²¹

Beyond the fire’s initial physical impact, smoke and debris will

continue to pose a lingering health threat to the community for years to come.

Local governments, scientists, environmental engineers, first responders, and policy experts are working together to determine how to reduce wildfire risk and create communities that are more resilient to future wildfires in a warming world.²²

“
It’s the first time in my career I have felt comfortable saying this [Marshall Fire] is a climate fire. Climate change will continue to have a hand in the future of wildfire, increasing the length and intensity of fire seasons, as well as changing how, when, and where water is distributed.

—*Natasha Stavros, Director of the Earth Lab Analytics Hub at the Cooperative Institute for Research, University of Colorado Boulder*

”



GOING DEEPER

Health Impacts

- Poor air quality can intensify cardiovascular, respiratory, and allergy-related illness.
- Wildfires carry carcinogens, induce asthma symptoms due to high smoke levels, and pose a number of other health-related air quality issues.
- Higher temperatures are increasing the length and severity of allergy seasons and the likelihood of heat emergencies.
- Higher temperatures could also lead to more vector-borne and waterborne diseases.
- Extreme heat increases the risk of dehydration, heat stroke, and heat exhaustion, and aggravates cardiovascular and respiratory illness. Adults age 65 and older and children are particularly vulnerable.



SUSTAINABLE FOOD & AGRICULTURE FUND

The Sustainable Food & Agriculture Fund supports the Project Protect Promotora Network, an organization that serves Colorado’s frontline farm workers. The county’s funding helps protect workers from the escalating impacts of climate change by providing the clothing and supplies they need to remain safe while working outdoors in extreme heat conditions.

“

I am an elderly agricultural worker, and I want to thank you for the help that you have given me. The shirts, the hats, and everything I have been given help me a lot. I never thought of having such good-quality clothes. Thanks to the lady from the program who is always looking after us, we have asked her for help with pain medicine and something to help us with allergies. Sunscreen and gloves help us a lot; we are under the sun all day, and clothes and bottles of water help us a lot.

—Salvador Lopez, Farm worker supported by Project Protect Promotora Network

”

TAKING ACTION

Resilience

Future warming and climate disaster risks are directly tied to emissions trajectories. However, reducing emissions is not enough. We must also take preemptive steps to protect our community from the climate impacts we are already seeing.

Boulder County has implemented adaptation policies and neighborhood resilience programs as key components of its climate action strategy. Recent successes include:

- Boulder County’s Wildfire Partners program helps homeowners prepare for and mitigate risks associated with wildfires. Residents receive a customized report identifying their home’s wildfire vulnerabilities, as well as a list of actions they can take in order to reduce wildfire susceptibility. After passing inspection, homeowners receive a certificate, which is recognized

by Allstate, State Farm, and USAA insurance companies as proof of mitigation. These companies will not deny coverage to a Wildfire Partner, and the certificate can be uploaded to the multiple listing service to help sell the home.

- Boulder County has built a detailed map visualizing risks [SEE PAGE 46] related to climate impacts alongside demographic information that includes household income, language, race, age, and reliance on public transportation. The map will help local government agencies prioritize resources to protect historically and currently marginalized communities from climate-related impacts.
- Boulder County launched Restore Colorado, a public-private collaboration with Zero Foodprint to improve resilience and fight climate change through

the promotion of healthy soil on local farms and ranches. Participating restaurants add a 1% surcharge to their customers’ bills. These funds are collected and distributed to local farmers via grants that support regenerative agriculture practices that improve soil health, conserve water, and sequester carbon.

- Boulder County Public Health has initiated outreach and assessments to address air quality and extreme heat concerns in lower-income and senior housing. Public health officials share resources that outline clear steps community members can take to protect themselves from ozone, wildfire smoke, and heat emergencies.

Both resilience measures and emission reductions are necessary to prevent climate catastrophe. Boulder County is continuing to develop programs that build resilience.

GOING DEEPER

Risks and Equity Mapping

Boulder County has created a county map visualizing the risks related to climate impacts at the neighborhood level. This map provides details on areas of the county that are vulnerable to impacts such as high heat, poor air quality, wildfire, flooding, and drought. It has also integrated demographic information, including household income and size, language, race, age, and reliance on public transportation. By mapping where climate risk is greatest alongside demographic information, climate equity considerations can be placed at the forefront of decision making, helping local governments prioritize resources to protect the most historically and currently marginalized communities.

The county has collaborated with its incorporated jurisdictions to complete this mapping effort. This effort illustrates the unique challenges facing different parts of Boulder County, including increasing temperatures and poor air quality in the east and

extreme precipitation and flooding in the west, as well as the expansion of wildfire-prone areas from the west to the east.

This detailed map also highlights neighborhood characteristics, from tree canopy coverage to access to public transportation, and help assess needs and opportunities for climate adaptation, including landscaping considerations and building materials choices. As a result of this work, county and municipal staff are collaborating on appropriate communication and outreach efforts to ensure all residents are aware of climate impacts. The map also shows neighborhoods where language, age, disabilities, or access to resources require focused attention to enhance adaptation efforts, allowing county and city staff to invest resources and time where they will have the greatest impact.



GOING DEEPER

Tree Cover

Forests and urban trees play a critical role in local hydrologic cycles as they take up water from soil and release it into the atmosphere, cooling the surrounding air. Returning trees to deforested land has the potential to improve soil structure, reduce desertification and erosion, and help soils retain more water—ultimately restoring the local hydrology and ecosystem. A number of scientific reports have illustrated that trees,

once well established, can reduce the urban heat island effect and create safer and more livable communities through the shade and evaporative cooling they provide. Furthermore, when paired with other perennials and herbaceous cover, trees generally reduce the overall amount of metered outdoor water required in a landscape, compared with turfgrass alone.

The climate crisis is impacting local communities by causing an unprecedented loss of biodiversity, including the loss of crucial native pollinators. Planting and protecting trees and creating more diverse habitats for local species, including perennial pollinators, can help address the impacts of both climate change and biodiversity loss.



MEETING OUR GOALS

Greenhouse Gas Emission Trends

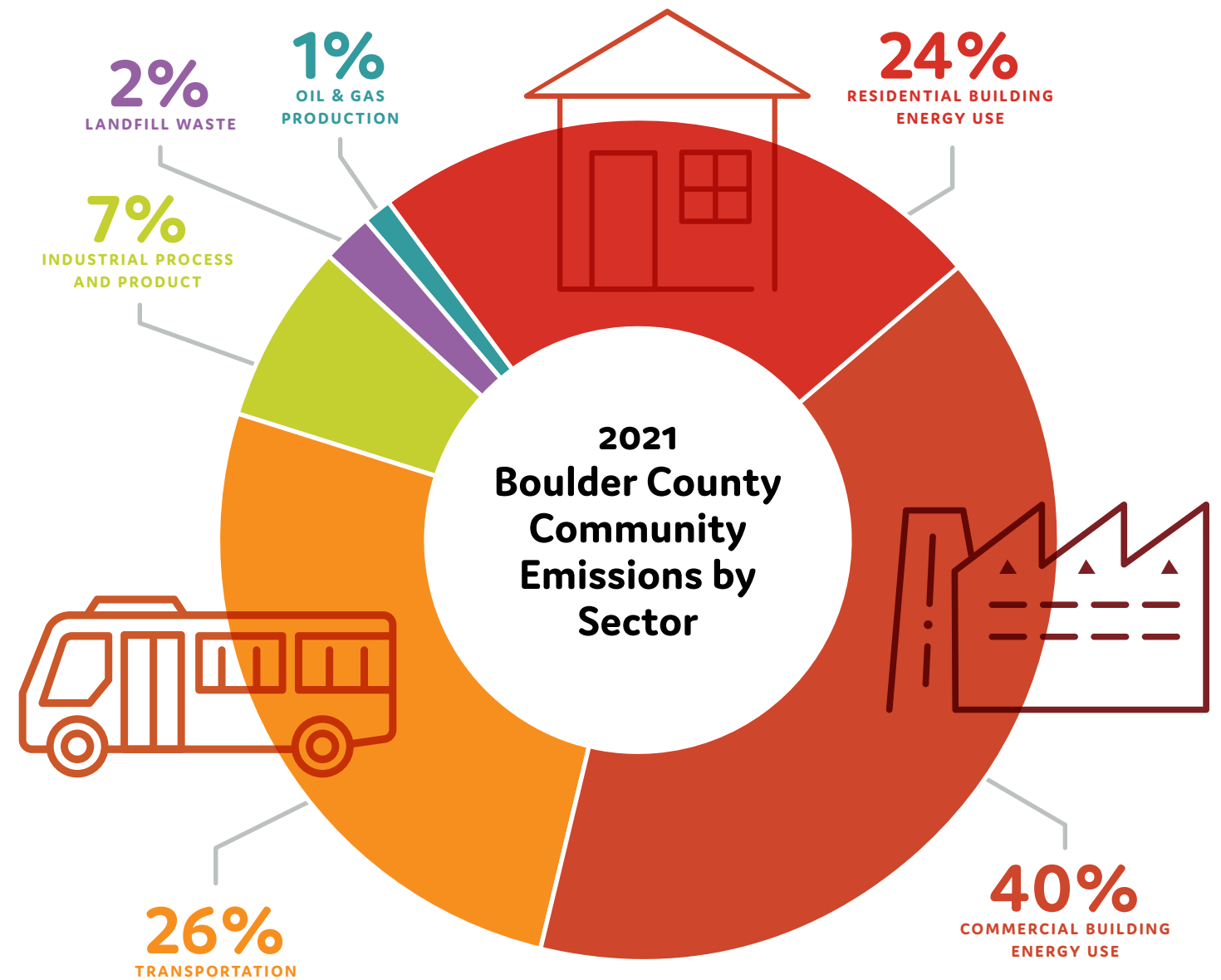
Boulder County has calculated and reported countywide GHG emissions since 2005. These inventories provide insight into the largest emitting activities in the community and show how community emissions have changed over time. The inventory scope includes emissions generated through activities happening in the county's geographic boundary. The county recently completed an updated

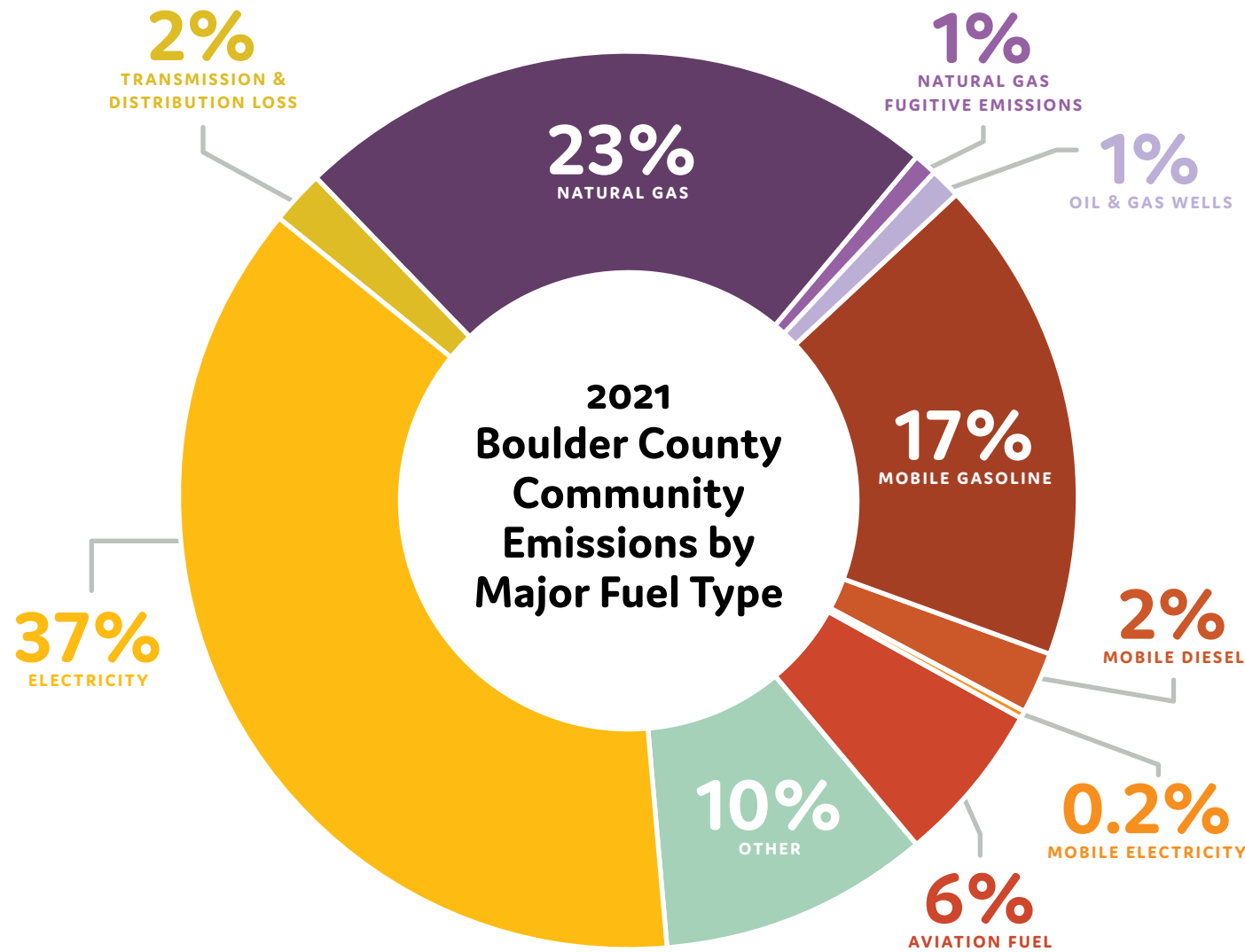
countywide GHG emissions inventory for the year 2021. Data from these analyses has guided the identification of the countywide emissions reduction strategies. [SEE OUR CLIMATE STRATEGIES ON PAGE 62 FOR MORE.]

Activities across Boulder County accounted for 4,097,288 mtCO₂e in 2021. This represents a 16% reduction since the last countywide inventory

was completed in 2016. To meet our 2030 goal, we have the challenge of reducing our emissions per person per year from 12 mtCO₂e currently to a countywide average of 2.6 mtCO₂e.

Energy use by buildings was the greatest emitting sector, making up 64% of total countywide emissions. Transportation was the second-greatest emitting sector, making up





Percentages may not add up due to rounding; the Other wedge includes emissions from agriculture, forestry, and other land use; waste; wastewater; other stationary fuels (propane, stationary diesel, wood); and industrial processes and product use (cement production, refrigerants).

26% of total countywide emissions. Gasoline and transboundary aviation were the greatest transportation-related emissions sources.

Electricity and natural gas use comprised the largest sources of emissions across the county in 2021, making up 37% and 23% of total countywide emissions respectively.

Based on these results, programs and policies aimed at reducing emissions related to building energy use and transportation activities have the greatest potential to reduce countywide emissions.

Waste emissions made up roughly 2% of countywide emissions. The majority of emissions within this sector came from landfilled waste.

TRENDS OVER TIME

Boulder County has made strides in reducing GHG emissions over the

years. Since 2016, Boulder County's countywide emissions declined by 16% despite a 5% increase in population.

In the building energy sector, emissions decreased 10% from 2016 to 2021. This is largely attributed to a cleaner electricity grid. Since 2016, natural gas use emissions increased 11%, which can be attributed to the increase in the county's population, a colder winter, and a 6% increase in the global warming potential of methane. Also, since 2016, electricity emissions countywide have decreased 20%, largely due to the growing proportion of electricity derived from clean and renewable energy sources. Renewable energy and efficiency programs, including the EnergySmart program for commercial and residential building, the BuildSmart program, and Housing Authority services, contribute to emissions reductions in the energy sector. This being said, there are still significant

opportunities to reduce energy-related GHG emissions, including through widespread electrification and more aggressive renewable energy and efficiency policies.

Since 2016, transportation sector emissions countywide have decreased 31%. Mobile gasoline, the greatest source of transportation-related emissions, was reduced 18% between 2016 and 2021. Since 2016, emissions associated with air travel decreased 52%. This is due in part to travel restrictions and an increase in the population working from home during the Covid-19 pandemic. However, community programs aimed at increasing multimodal transportation options like walking, biking, public transit, and carpooling, are contributing to the reduction in transportation sector. Boulder County is committed to growing sustainable transportation efforts in the coming decades to reach the countywide 2030 goal.

SEE THE AIR QUALITY CHAPTER (PAGE 14) FOR ADDITIONAL EMISSIONS REDUCTIONS STRATEGIES.



Waste only makes up a small portion of Boulder County’s overall community emissions. However, the emissions captured in this sector don’t account for the emissions generated through the life cycle of a product. For example, production, transportation, delivery, and the use of a product all emit carbon. Reducing the consumption of goods and encouraging reusable and recycled materials lead to emissions reduction at every stage of a product’s life cycle. These emissions reductions are not captured in a standard GHG inventory, which measures GHG emissions created solely within the

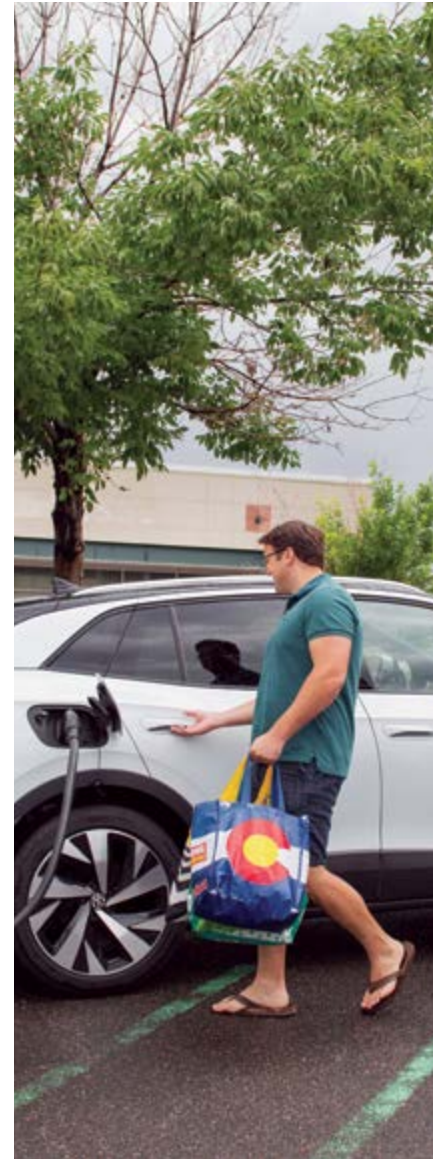
county’s geographic boundary. For this reason, Boulder County will be conducting a consumption-based emissions inventory (CBEI). [SEE PAGE 53 FOR MORE.]

WHAT COMES NEXT

In 2021, emissions per capita in Boulder County was 12 mtCO₂e annually. To meet our 2030 goal, we must reduce our emissions per person per year to a countywide average of 2.6 mtCO₂e. This is not an easy feat. Boulder County, municipalities, and all community members need to commit to more aggressive climate action and

emissions reduction policies to meet this goal.

Yet, the scale of this challenge extends beyond the borders of Boulder County and is much larger than our local, countywide goal. To reduce global warming to a level of 1.5°C, immediate and deep emissions reductions are required at the international level. Boulder County is committed to reducing global emissions by actively engaging in and advocating for emissions reduction policies at the state, federal, and international levels.



GOING DEEPER

Consumption-Based Emissions Inventory

A CBEI is a calculation of all the GHG emissions associated with producing, transporting, using, and disposing of products and services consumed by a community or entity in a given time period, typically a year. This differs from a traditional territorial inventory, which tracks emissions only created inside the county.

Boulder County has conducted a CBEI that will provide the county with a holistic picture of the life cycle impacts of consumption within the county. CBEIs have several categories, including, but not limited to, water, clothing, healthcare, food and beverage, vehicles, and parks.

Boulder County is pursuing a CBEI to understand and subsequently address consumption as a major driver of carbon pollution. The county hopes to weave CBEI data together with traditional inventory data to identify strategies that reduce emissions in all activities across the community. The CBEI will be one of the first completed in Colorado, and it will be a crucial data set to inform future climate action in Boulder County. In a high-consumption culture such as the U.S., understanding consumption-based emissions will illuminate opportunities to reduce carbon pollution related to the products and services used in everyday life.



RESTORE COLORADO

Using one of the U.S. Department of Agriculture’s first-ever urban agriculture grants, Boulder County teamed up with Mad Agriculture and Zero Foodprint, winner of the prestigious James Beard Award, to launch Restore Colorado, a revolutionary public, private, and nonprofit partnership that connects consumers, restaurants, and food businesses to local farms and ranches. More than 32 Colorado restaurants and businesses are collecting a few cents per meal for Restore Colorado grants, which fund local regenerative and carbon sequestration farming projects that improve soil health.



“
As chefs for many years in New York City, we felt so far away from where our food came from. Moving to Colorado was our way to create a company that is sustainable, and by choosing to source locally, supports the community around us. [This program] made it easy for us to support the farms we know and love right here in our neighborhood. We pride ourselves on providing our clients with the delicious produce grown by Speedwell Farm & Gardens, and to know that our 1% donation goes directly to help them continue to do what they do makes our hearts ache with joy.

— David Pitula and Debbie Seaford-Pitula,
 owners of Whistling Boar Private Chef & Catered Events

MEETING OUR GOALS

Strategic Priorities

Boulder County recognizes that preventing the most devastating impacts of climate change will require everyone’s participation. The Office of Sustainability, Climate Action & Resilience (OSCAR) has established the following strategic priorities to guide this work:

- Focus on innovative solutions that drive large-scale, systems-level change.
- Center work on equity and racial justice.
- Engage the community.

All of the strategies, programs, and projects that OSCAR implements are guided by their alignment with these three priorities. The priorities guide a dedicated and knowledgeable staff working in the areas of energy,

including efficiency, electrification, and renewables; resilience and adaptation; waste and consumption; transportation and EVs; and climate change communications and community engagement.

Boulder County’s efforts to meaningfully integrate climate action into financial decisions—including choosing insurance providers, pension investments, and banking services—send a message that transitioning away from fossil fuels is our top priority. We will also continue to act on these values by advocating for economic systems that foster an equitable, livable future.

With the passage of the largest and most consequential climate bill in U.S. history, the team at OSCAR is

working to meet the moment. The recently enacted Inflation Reduction Act will accelerate national climate action and local governments are key to successful implementation. Regional collaboration and thoughtful coalition building are fundamental strategies to meet the scale and speed necessary to reach our objective of a just transition to a livable planet. That’s why large-scale systems change, done in an equitable way that engages the community, is vital.



TAKING ACTION

Clean Energy Transition

In Colorado, the Public Utilities Commission (PUC) is responsible for regulating public utilities in the public’s interest, including electric and gas. Both the state legislature and the PUC can play a significant role in demanding that utilities decarbonize and adapt to a changing climate. Because the power to define what the public’s interest is lies with both the PUC and the legislature, either entity can develop mandates to shift PUC policy and regulatory

decision-making to align with the state’s priorities around renewable energy and grid decarbonization. Together, they develop rules, conduct oversight, and make decisions about critical aspects of energy that could greatly impact the state’s clean energy transition, including new investments, utility rates, and incentives. As such, there is great potential to leverage the PUC’s powers and mission to align with the state’s and Boulder County’s energy goals.

Utilities still have the responsibility to clean up their own operations on a more aggressive timeline independent of the PUC or the state legislature. For example, Xcel Energy, one of Colorado’s main energy providers and one of the electricity providers in Boulder County, has committed to reducing carbon emissions from electricity at least 80% by 2030 and reaching 100% carbon-free electricity by 2050.



MEETING OUR GOALS

Municipal Collaboration

Boulder County values its municipal partnerships and recognizes that collaboration is important to meet shared climate action goals. A few recent collaboration highlights include the following:

- OSCAR team members are leading a cohort of municipalities to adopt the 2021 International Energy Conservation Code for residential new construction and remodels to accelerate electrification and energy efficiency. The cohort is also developing a road map to achieve net zero for all new construction.
- The county is collaborating with county municipalities, regional and state stakeholders, and Xcel Energy’s Partners in Energy in the design and implementation of a regional transportation electrification plan for Boulder County communities.
- Boulder County’s Environmental Sustainability Matching Grant program provides an opportunity for municipalities in the county to undertake environmental sustainability priorities within their communities. In addition to supporting local efforts, the program will help the county leverage community resources for a coordinated, countywide approach to environmental sustainability.



SMALL BUSINESS EQUITY PROGRAM

Boulder County Partners for a Clean Environment's (PACE) Small Business Equity Program helps small businesses save energy and money by replacing outdated restaurant or grocery equipment and lighting. After receiving a PACE Small Business Equity Program grant, Asian Food Market saved 60% on their utility bill and reduced their contribution to climate change by 50 metric tons of carbon dioxide per year by replacing outdated equipment.



“
Without this grant, there is no way we could have made this happen.
— Maria Nguyen,
owner of Asian Food Market.
”

MEETING OUR GOALS

Climate Finance

The Inflation Reduction Act (IRA) is America's largest-ever investment to fight climate change, with \$369 billion committed to climate action, resilience, and innovation. The new law is expected to reduce emissions 40% by 2030. Combined with continued federal climate action and ongoing leadership from state and local governments, the IRA will move the U.S. closer to meeting President Biden's target of a 50% reduction in climate pollution by 2030. The IRA will significantly affect the markets and potentially transform the U.S. economy. An analysis commissioned by the BlueGreen Alliance from the Political Economy Research Institute at the University of Massachusetts Amherst found that the bill would grow the workforce by 9 million jobs over the coming decade.

We know that many climate action and resilience initiatives will need to be regional in scale and managed through a coalition-based process. This

new law provides a potent catalyst for meaningful regional collaboration and stakeholder engagement. The OSCAR team plans to do the organizing work for structures that drive the scaling of our climate action at the speed necessary to meet our climate goals, and we need everyone's involvement.

As we approach federal funding for nature-based solutions, building and transportation electrification, resilience, and other transition infrastructure, we will consider stakeholders and governance structures to ensure that equity is a defining feature of our work.

The IRA is expected to reduce emissions 40% by 2030.



TAKING ACTION

Carbon Dioxide Removal

Taking excess carbon out of the air is now a critical part of confronting the climate crisis. There's already too much carbon dioxide in the air, and more on the way. To maintain a livable climate, the most ambitious plans to fully transition our world away from fossil fuels will require significant removal of excess atmospheric emissions over the course of this century. CDR strategies can be achieved through technological innovation or nature-based solutions. Experts agree that pursuing carbon removal strategies in addition to deep emissions reductions is imperative

to mitigate the worst impacts of the climate crisis." IPCC says we need to remove up to 1,000 billion tons of CO₂ from the atmosphere by 2100 to avoid catastrophic climate change. Thus, all pathways to keep warming within 1.5°C require massive amounts of CO₂ removal, in addition to deep and rapid emissions reductions.

SUPPORT FOR CARBON DIOXIDE REMOVAL

In 2022, Boulder County and the City of Flagstaff, Arizona, launched a first-of-its-kind, local government coalition to advance CDR called the 4 Corners

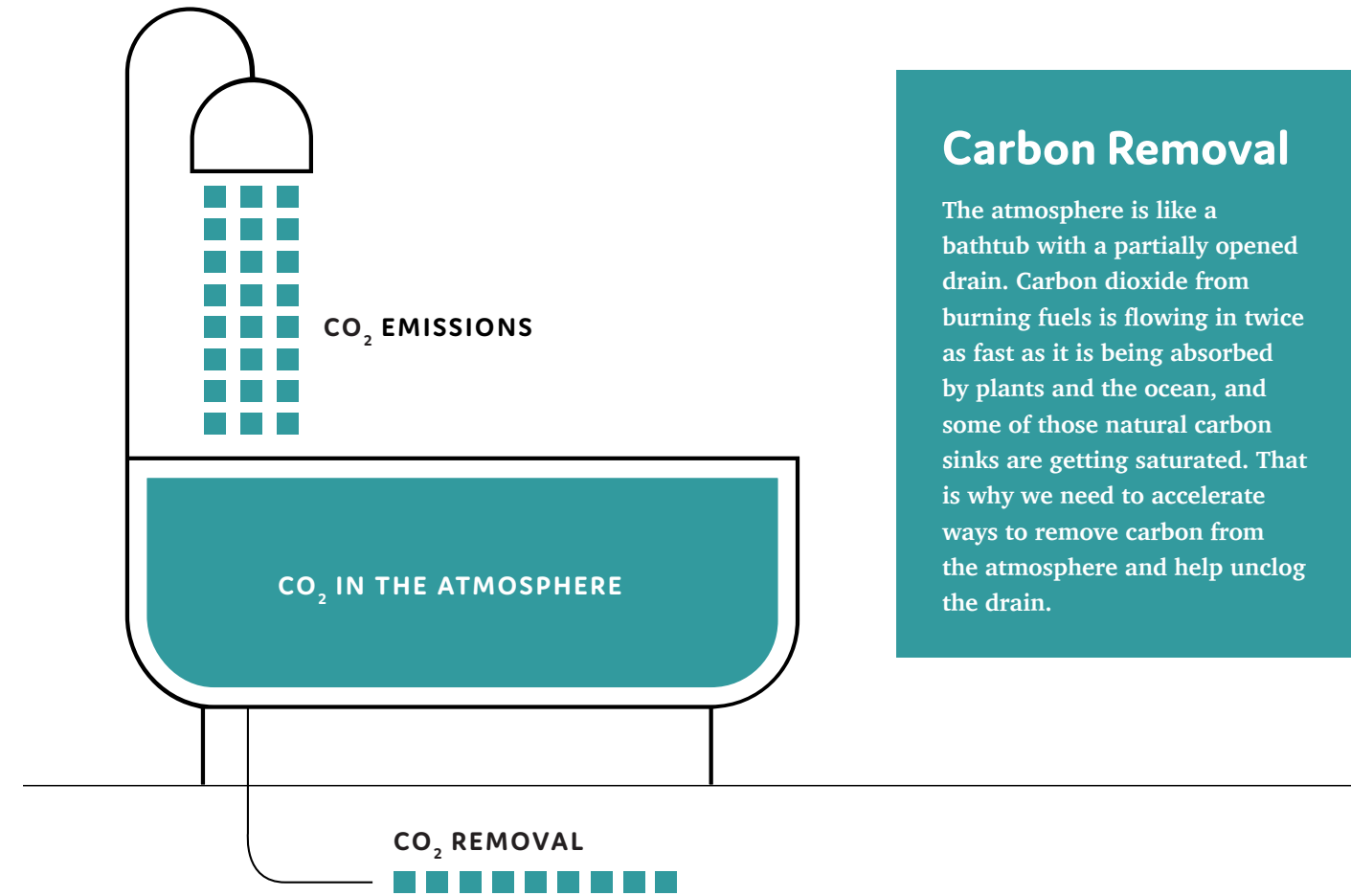
Carbon Coalition. In partnership with the Open Air Collective, this coalition will nurture a market for high-impact CDR that is sustainable, equitable, and locally determined.

Alone, local governments have limited resources and capacity to initiate complex and costly carbon removal projects. But by working in a coalition, local governments can pool resources and share best practices. Together the members of this coalition can invest in common projects similar to community solar, grow demand for new technology like low-carbon concrete, and even adopt regional procurement standards that place explicit value on products and services that draw down carbon. Collectively, the members can also support progressive local and state policies that create even wider adoption of CDR. The county is also exploring opportunities to support carbon removal through its Climate Innovation Fund [SEE MORE ON PAGE 68].



Carbon Removal

The atmosphere is like a bathtub with a partially opened drain. Carbon dioxide from burning fuels is flowing in twice as fast as it is being absorbed by plants and the ocean, and some of those natural carbon sinks are getting saturated. That is why we need to accelerate ways to remove carbon from the atmosphere and help unclog the drain.



REMOVING CARBON DIOXIDE AND OTHER EMISSIONS FROM THE ATMOSPHERE IS VERY DIFFERENT THAN CARBON CAPTURE AND STORAGE.²³

COUNTY OPERATION STRATEGIES

Ensure climate change mitigation and adaptation are top priorities within Boulder County operations

BENEFICIAL ELECTRIFICATION

- Transition buildings owned by Boulder County from fossil gas to clean electric power.

ENERGY EFFICIENCY

- Reduce Boulder County's internal energy consumption and encourage energy conservation behavior at work.

TRANSPORTATION

- Promote low-carbon transportation options, multimodal work commuting, and EV adoption within the countywide vehicle fleet and among county employees.

RENEWABLE ENERGY

- Support land-use policies and the development of codes that reduce barriers to solar without compromising the county's open space policies, and support using appropriate, county-owned land for renewable energy.
- Continue to meet all of Boulder County's operational electricity with renewable energy.

CROSS-CUTTING STRATEGIES

- Be active members in shaping statewide policy both through our Boulder County policy team and through organizations like Colorado Communities for Climate Action.
- Adopt internal resolutions and policies that establish climate action as a top priority for the organization and guiding principle for decision-making.
- Prioritize budget decisions around climate mitigation and climate resilience initiatives.
- Create an internal county climate change strategic task force that helps implement Boulder County's internal climate mitigation and climate adaptation strategies.
- Assign a point person to coordinate climate adaptation and climate resilience efforts, track progress, and leverage countywide resources.

COMMUNITY STRATEGIES

Prioritize climate change mitigation and adaptation communitywide

BENEFICIAL ELECTRIFICATION

- Explore public-private partnerships and third-party financing models to support a large-scale transition to highly efficient electrical space and water heating equipment.
- Support fuel switching that helps residents and businesses adopt renewable heating and cooling technologies to reduce their reliance on fossil fuels, such as replacing fossil fuel gas appliances and inefficient electric appliances

ENERGY EFFICIENCY

- Continue to offer EnergySmart and Partners for a Clean Environment services to Boulder County residents and businesses, and explore new opportunities to address GHG emission reductions through these programs.
- Enhance and improve commercial and residential building codes to achieve net zero energy on all new construction in unincorporated Boulder County by 2026.
- Encourage Boulder County municipalities to adopt the most recent residential and commercial energy efficiency building codes and consider going beyond code.

- Impose a fee on energy intensive industries, including, but not limited to, marijuana and oil and gas.
- Promote low-interest financing mechanisms through the Colorado Energy Office's Residential Energy Upgrade loans, Commercial Property Assessed Clean Energy, and other financing instruments, to enable residents and businesses to complete energy efficiency upgrades and install renewable energy.
- Support electric and gas utility policy that increases energy savings requirements and encourages demand-side management programs to meet those requirements.

BOULDER COUNTY HAS IDENTIFIED SEVERAL STRATEGIES TO DRIVE EMISSIONS REDUCTION AND CARBON NEUTRALITY GOALS. SOME OF THESE STRATEGIES ARE COMMON IN CLIMATE ACTION WORK AND OTHERS ARE WHAT BOULDER COUNTY CONSIDERS BIG MOVES—INNOVATIVE OR CUTTING-EDGE WORK ESSENTIAL TO MEETING COUNTY GOALS. BIG MOVES ARE SHOWN IN BLUE.

COMMUNITY STRATEGIES

Prioritize climate change mitigation and adaptation communitywide (continued)

TRANSPORTATION

- Encourage Boulder County municipalities to add a mix of housing types and price ranges to allow commuters the ability to live in the communities where they work.
- Support the implementation of the Boulder County Mobility and Access for All Ages and Abilities Plan to meet the needs of historically underserved community members.
- Support public DC fast charging and Level 2 charging at strategic locations in Boulder County.
- Support adoption of the most advanced vehicle emissions standards available.
- Transition 30% of all vehicles registered in Boulder County to zero emissions by 2030 through programs, incentives, partnerships, and policies.
- Update transportation policies, plans, and standards to incorporate new travel systems and technologies into the design of transportation infrastructure, to ensure low-carbon travel.
- Continue to develop Boulder County's multimodal transportation infrastructure, which includes supporting transit service, expanding shared-use vehicle opportunities, developing biking infrastructure and incentives, and increasing mobility access for all.
- Continue to offer transportation advising to the business community to increase sustainable transportation choices and decrease single-occupancy vehicle use through Partners for a Clean Environment services.
- Support statewide vehicle and fleet electrification proposals, electric school buses, and public transit for pollution reduction and rider health.
- Evaluate the impacts of events caused by climate change on transportation infrastructure, then plan adaptations of transportation infrastructure to help prepare for, respond to, and recover from such events.

BIG MOVES ARE SHOWN IN BLUE

CARBON DIOXIDE REMOVAL

- Explore the adoption of policy that would require large emitters to pursue CDR at the rate of one ton of sequestration or removal for every ton of emissions, with a focus on local sequestration and removal projects.
- Launch and utilize the new Climate Innovation Fund to support local projects focused on CDR and landscape resilience and restoration.
- Incorporate land access and reconciliation with Indigenous peoples into nature-based CDR strategies.
- Work with Boulder County food producers, tenants, and ranchers to increase the carbon sequestration potential of farmland using carbon farming methods, compost application, reduced tillage, tree planting, slow-release fertilizer usage, and cover crop implementation.

WASTE ENERGY

- Explore the use of food waste bans to reduce the quantity of organics, including food, yard, and landscaping waste, that are disposed of in the landfill.
- Adopt deconstruction ordinances that require some amount of deconstruction and waste diversion for all construction and demolition projects.
- Encourage resource conservation by local government, residents, and businesses to reduce the carbon footprint associated with the life cycle of resources and goods, including extraction or harvest, production, transport, provision of services, reuse of materials, recycling, compost, and disposal. Adopt an extended producer responsibility policy to shift responsibility for management of post-consumer waste to producers.

RENEWABLE ENERGY

- Support increased access to rooftop and community solar throughout Boulder County by continuing to offer Boulder County's suite of renewable energy services, such as EnergySmart, Partners for a Clean Environment, solar bulk purchase programs, and rebates and incentives.
- Advocate and support utility policies that increase the amount of renewable energy on the local power grid.
- Prioritize 100% renewable electricity by 2030 countywide and 50% of buildings off fossil gas heating by 2030.

COMMUNITY STRATEGIES

Prioritize climate change mitigation and adaptation communitywide (continued)

WATER

- Update the County Comprehensive Plan to establish and revise water-related goals and utilize updates in regulatory documents such as the Land Use Code to support implementation of these goals.
- Work with water rights holders, including farmers on Boulder County agricultural properties, to employ practices that increase soil capacity for water retention and reduce water use.
- Improve ditches to reduce impact of fires and reduce water waste.
- Develop post-wildfire revegetation plans to protect watersheds from mudslides and increased runoff and to reduce the risk of flooding to downstream assets.
- Provide education and outreach to residents on chemical applications for landscaping and snow removal that have adverse impacts on water quality.
- Support turf replacement programs and promote transition to more water-efficient landscaping in partnership with water districts and other entities.
- Protect, improve, and ensure watershed health to secure an enduring supply of high-quality source water, while protecting the wildlife habitat, stream system functions, and aesthetics of the natural environment.
- Ensure that all on-site wastewater treatment systems are permitted and approved.
- Expand water conservation education efforts with Boulder County residents and businesses.



CROSS-CUTTING

- Support national and statewide efforts to establish a regulated price on carbon or any other market mechanisms that effectively reduce and remove GHG pollutants.
- Practice shareholder advocacy by encouraging all companies the county invests in to incorporate climate action into their core business principles. Furthermore, divest all county assets and financial resources from any institution associated with financing the climate crisis and provide tools and resources for community members and businesses across Boulder County to do the same.
- Continue to pursue legal action against major polluters that have played a significant role in causing the climate crisis damaging the community.
- Participate at state agency proceedings to advocate for regulations that reduce emissions from oil and gas, industrial facilities, and transportation.
- Collaborate with state lawmakers and other local governments to enact legislation that reduces climate impacts of carbon pollution from sources such as oil and gas, industrial operations, and transportation.
- Utilize land-use policies to encourage a compact development pattern in unincorporated Boulder County, effectively locating new development close to existing development, locating housing close to services and transit, and protecting rural preservation and open space lands from fragmentation and other associated impacts.
- Continue to strengthen and enforce county oil and gas regulations.
- Encourage the adoption of federal regulations and policies that reduce the impacts of oil and gas resource extraction.
- Work to engage disproportionately impacted residents through trusted leaders and channels within the community.
- Serve as a convener of strategic and collaborative discussions about climate change mitigation and adaptation across the municipalities within the county, with a particular emphasis on public health, water supply, and hazard management.
- Encourage the Office of Emergency Management to incorporate climate change preparedness strategies into Boulder County and municipal multihazards plans.
- Support future climate change preparedness policies and collaborative efforts at the local, regional, and state levels.

BIG MOVES ARE SHOWN IN BLUE



Climate Innovation Fund

The Climate Innovation Fund supports projects that use nascent and cutting-edge technologies to remove carbon dioxide from the atmosphere and restore landscape resilience locally. A panel of national and local experts in climate research, carbon sequestration, CDR technology, nature-based climate solutions, and landscape resilience selects projects through a competitive screening process, weighing factors like projected amounts of carbon removed from the atmosphere, carbon removal quality, and community co-benefits.

The inaugural round of grant funding is supporting research, as well as the implementation of the following:

- Decentralized biochar production on local farms.
- Dryland agroforestry practices that enhance fire resilience, biodiversity, water retention, and soil health.
- Carbon farming and regenerative conservation experimentation and analysis.
- Mobile biochar technology that reduces fire risk by facilitating on-location waste wood removal across the county's wildland-urban interface.
- Mycelium inoculation to sequester carbon on degraded agricultural land.

OSCAR seeks to support innovative climate solutions that promote CDR and landscape resilience.

“

We need to kickstart fresh ideas and creative solutions to tackle the climate crisis, and these grant recipients will do that locally. Grounding innovation and technology development through a place-based approach can advance equity and amplify outcomes that respond best to our community's needs. This is why the county selects projects that have positive local impacts and community co-benefits. We look forward to seeing this work make a difference right here in Boulder County, and we also look forward to sharing what we learn with our community and with innovators and scientists around the world.

—Board of County Commissioners Chair Marta Loachamin

”



TAKING ACTION

Nature-Based Solutions

Nature has been cycling and storing carbon for more than three billion years. Through the scaling and harnessing of natural processes like photosynthesis, we could remove 11 gigatons of CO₂ from the atmosphere each year. For context, this is about one third of the annual emissions reductions required to limit warming to 1.5°C over the next decade.²⁴

Some of the most effective nature-based solutions include regenerative agriculture, forest regrowth, and

grassland restoration. The OSCAR team is working on increasing urban tree canopies with a focus on equity for those communities that are at the most risk of extreme heat and other climate change impacts. In urban areas, there have been temperature differentials of as much as 30°F between areas where tree canopy provides shade and areas without trees. With nature-based solutions, we strive to preserve biodiversity while also adapting to the risks of climate change such as high heat.



WOMEN, INFANTS, AND CHILDREN GAP PROGRAM

The Women, Infants, and Children (WIC) Gap program provides county residents and families in need access to healthy, local food. The program's incentive dollars can be spent at Boulder County farmers' markets, both at their locations or for home delivery, supporting local agriculture and a more circular economy.

“
This recent focus on technological innovation is great, but it’s important to recognize that innovation occurs in the nonhuman world as well. Long before humans existed, the planet came up with an incredibly innovative solution to the same problem we face now: too much greenhouse gas in the atmosphere. That solution, “invented” by evolution over 3 billion years ago, is called photosynthesis.

—Peter Ellis,
Global Director of Climate Science,
The Nature Conservancy

”

“
My family is enjoying fresher, more nutritious food I wouldn’t be able to afford otherwise. The pleasant experiences I’ve had connecting with the community and enjoying the atmosphere at the farmers market have improved my mental health.

— Silvia Navarette, WIC Gap Program participant

”



Sky Pilot Farm

Longmont’s Sky Pilot Farm used a grant from the county’s Sustainable Food & Agriculture Fund to expand their mobile grazing operation and regenerative agriculture footprint.

The grant paid for infrastructure to move animals on pasture, including mobile shade, mobile water, mobile fencing, and mobile housing for chickens, pigs, and sheep. This equipment is necessary for moving animals across large swathes of land, in order to mimic the natural movement patterns of herd ungulates. Mobile grazing spreads fertilization across the land, but the frequent movement ensures that the animals don’t remain in a location long enough to damage the soil. This practice keeps animals healthy, mitigates grass fire risk, encourages native grasslands and wildlife, and promotes healthy soil, which removes carbon from the atmosphere.

The expansion of Sky Pilot’s grazing operation allowed the farm to increase the range of their animals from 200 to 800 acres while doubling their revenue.

“

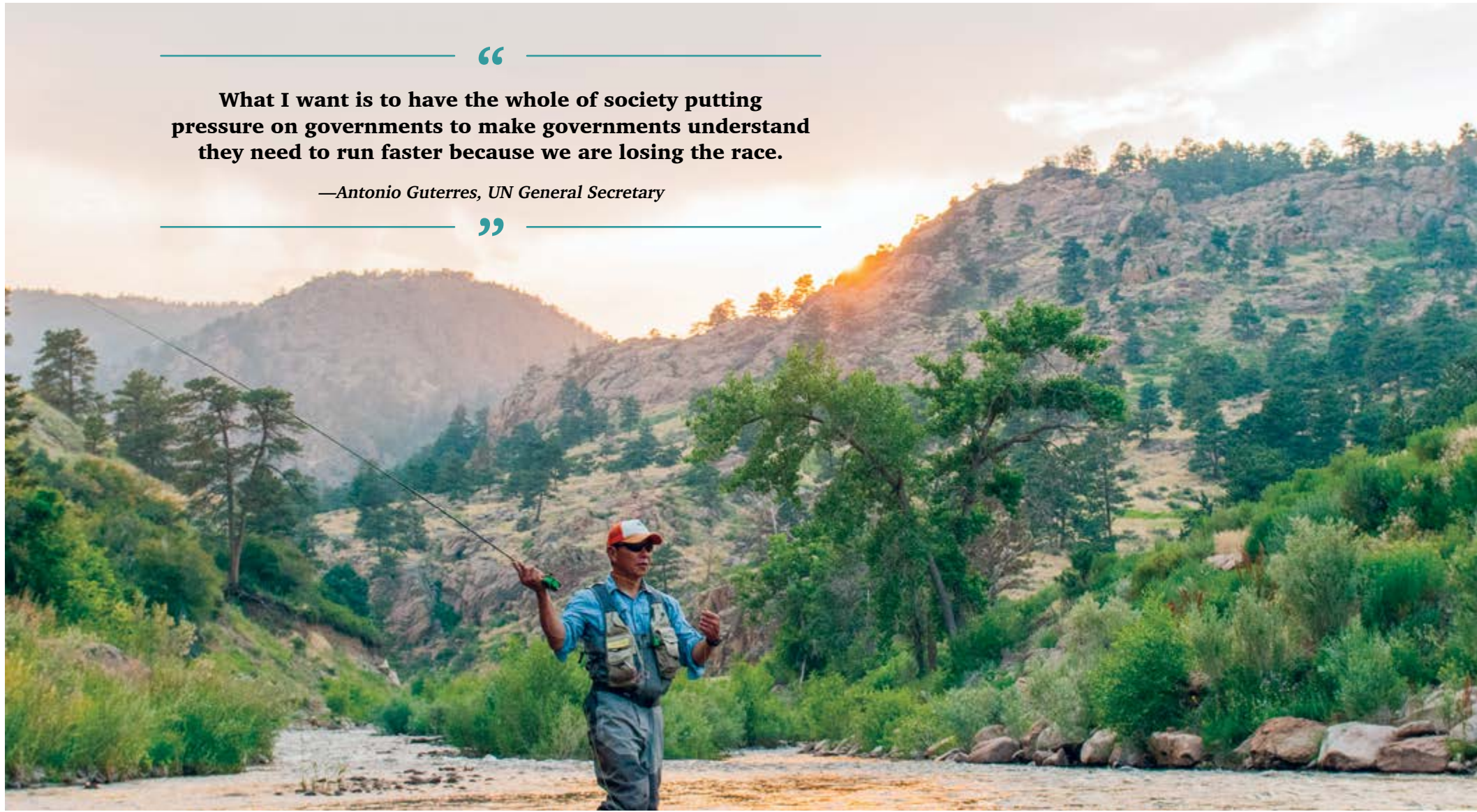
When someone makes a purchase at the farmers market, whether it’s from us or somebody else, they’re furthering that closed loop of keeping dollars, nutrients, and nutrition in the community. It’s long hours, it’s difficult, but there are people everywhere that want to be doing this. It’s really beneficial to have programs like this that have the intention to open pathways for more regenerative agriculture everywhere.

—Chloe Johnson, Sky Pilot Farm

”

LOCAL FOOD PRODUCED	22,000 lbs. of lamb
CARBON SEQUESTERED	10 MTCO₂
DOLLARS AWARDED/ CASH MATCH + IN-KIND	\$40,000
REVENUE GENERATED	\$100,000
ACREAGE IMPACTED	800 acres





“

What I want is to have the whole of society putting pressure on governments to make governments understand they need to run faster because we are losing the race.

—Antonio Guterres, UN General Secretary

”

MEETING OUR GOALS

Policy

Boulder County has made great progress over the past several years by supporting and adopting policies and programs that reduce emissions and ensure equitable access to the benefits of climate action across the community. And yet, there is still much more to be done. Policy is a crucial lever in driving the actions that will ultimately reduce GHG emissions. The county continues to advocate for appropriate climate action policy at the local, regional, state, and federal levels. Whenever possible, the county works in conjunction with other local governments and with Colorado Communities for Climate Action to maximize consistency and impact.

The county helps keep residents informed and engaged in discussions around climate action policy, and encourages them to participate directly in the public process on their own behalf. Crucially, this work specifically involves engaging disproportionately impacted residents through outreach

by trusted leaders, as well as other channels in the community.

The county pursues legislation and then follows up on implementation of passed bills through regulations at various state agencies. This work to combat both the climate crisis and unhealthy air pollution adheres to the Boulder County Policy Team’s priorities, adopted each year by the county commissioners. Recent successes from the Policy Team include the initiatives on the following pages. Further details can be found in this document.

POLICY PRIORITIES

The following are environmental sustainability policy priorities within Boulder County’s legislative agenda:

POLICY	WHAT YOU NEED TO KNOW	
<p>Advocate for sufficient funding and capacity for state agencies to implement necessary air and climate regulation</p>	<p>Boulder County has supported legislation for fees and funding the Colorado Department of Public Health and Environment (CDPHE) to effectively regulate air and climate pollution.</p>	<p>The county will continue to support mechanisms that draw funding from pollution sources to fund the effective regulation of pollution reductions from those sources.</p>
<p>Promote proactive efforts for climate change resilience and adaptability</p>	<p>In 2022, in the wake of the Marshall Fire, Boulder County supported several wildfire resilience and recovery bills, including Senate Bill (SB) 22-206, Disaster Preparedness and Recovery Resources, which provides sustainable support for residents impacted by disasters. Boulder County will continue to support necessary legislation and policy, including laws</p>	<p>that redefine the wildland-urban interface to account for vulnerability in nonmountain regions. The county will also continue to support funding and capacity for ongoing preparedness and recovery from fires, floods, and other climate-fueled disasters that are becoming all too familiar to Boulder County residents.</p>

POLICY

WHAT YOU NEED TO KNOW

Support and promote actions to achieve or exceed the state’s codified climate pollution reduction goals

With regard to legislation, Boulder County supported and shaped many bills, including House Bill (HB) 19-1261, the Climate Action Plan to Reduce Pollution, which set Colorado’s economywide GHG targets. The county followed up with input on the resulting GHG Road Map. The county then supported HB21-11266, the Environmental Justice Act for sector-specific GHG goals. The county also supported SB21-260 for, transportation pollution reduction and funding, and SB21-181, to provide for stronger regulation of pollution from oil and gas operations.

The county subsequently participated in the resulting statewide climate rulemakings, including the Transportation GHG Rule, the Building Energy Efficiency Rule, the oil and gas GHG and ozone rulemakings, and the Colorado Air Quality Control Commission’s (AQCC) regulation for GHG emissions and Energy Management for Manufacturers in Colorado, or GEMM.

POLICY

WHAT YOU NEED TO KNOW

Incorporate equity, accessibility, and just transition into climate policies and actions

Boulder County supported both the 2019 “Climate Action Plan to Reduce Pollution” and the 2021 “Environmental Justice Act,” the latter of which defined and required mapping of communities disproportionately impacted by climate change. These include low-income and housing cost-burdened communities, communities of color, and those historically subjected to exclusionary practices. The county worked on the Climate Equity Advisory Committee at CDPHE and shaped the Climate Equity Framework²⁵ to guide rulemakings. With regional health departments, the

county provided input on the Colorado EnviroScreen equity map and the Environmental Justice Action Task Force Recommendations.²⁶

The county continues to use these frameworks to guide the prioritization of equity in all rulemakings, and advocates for a clear expectation that community engagement will be reflected in finalized policy. The county is cultivating community engagement on policy at all levels, and specifically directing public participation toward state proceedings.



POLICY

WHAT YOU NEED TO KNOW

Promote equitable energy efficiency and electrification in the building, transportation, and industrial sectors

Boulder County supported HB19-1286 for commercial building benchmarking and GHG performance standards, and helped to shape and support HB22-1362 for statewide low-carbon building codes. The county has supported expanded weatherization for lower-income Coloradans and incentives for heat pumps and vehicle electrification.

The county supported HB21-1238 for gas utility savings targets and supporting programs, as well as HB21-264 for cleaner gas utility operations. The county continues to support and promote expanded electrification and “demand-side” savings incentive measures to transition the building and appliance industries away from fossil fuels and toward an ever-cleaner electric grid.

Support clean and renewable utility energy generation through retirement of fossil fuels and support of distributed renewable and resilient energy

Boulder County encouraged the governor and other state officials to continue their commitment to meeting the standards laid out by the Environmental Protection Agency’s Clean Power Plan, regardless of judicial or executive branch inaction. The county has opposed negotiations by utilities to reduce their commitments to clean energy and supported legislation such as HB19-1261, which required public utilities to reduce emissions 80% from 2005 levels by 2030. The county has

supported expanded utility incentives and provisions for energy efficiency and renewable energy.

The county has also supported, and will follow the progress of, proposals from Xcel Energy and Tri-State Generation that meet state goals for clean power generation. The county continues to support authority for local governments to implement community choice aggregation and clean energy delivery.

POLICY

WHAT YOU NEED TO KNOW

Expand the consideration of environmental and health costs associated with the use of fossil fuels in making and implementing climate policy

Boulder County supports the use of the social cost of carbon in environmental impact and cost-effectiveness analyses.

The county continues to advocate for these and other measures of the health and equity impacts of potential rules or inaction.

Support state regulation and other policy means to protect air and water quality, which are intimately connected to climate change

Boulder County supported HB22-1244, Regulation of Air Toxics, to expand monitoring of industrial air pollutants and the formulation of health standards to protect surrounding communities. Control measures for these pollutants could also reduce GHG pollution.

The county worked long before the AQCC to protect air quality from ozone precursors and their pollutants, including methane leaked from oil and gas wells. The county

has shaped many advances in the AQCC Regulation 7 rules for ozone precursors from oil and gas.

Due to the high levels of summer ozone across the front range, the county regularly pressed the Regional Air Quality Council to improve its modeling of ozone-forming compounds and strengthen the pollution control measures in its proposed State Implementation Plans.



POLICY

WHAT YOU NEED TO KNOW

Support adoption of a comprehensive, market-based approach to reduce Colorado’s GHG emissions while protecting the most vulnerable

The cost of climate change, if left unmitigated, will be astronomic. However, the current market does not account for the costs of climate change in the price of goods and services. This is a market failure that contributes to a false narrative that aggressive climate action is more costly than the status quo. Boulder County supported a 2019 petition to the AQCC for a market-based emissions reduction system.

Per Governor Polis’ Executive Order B 2021 01, Colorado will not pursue an economywide cap-and-trade program. The county will continue to support efforts to internalize the cost of pollution to polluters, which puts a price on heat-trapping emissions and allows that price to help drive emission reductions.

The county continues to support the option of progressive and equitable carbon taxes and other price signals to disincentivize the use of fossil fuels.

Meet solid waste reduction goals

Boulder County supported HB20-1163, “Management of Single-Use Products,” to prohibit stores and restaurants from providing most single-use plastics and polystyrene. The county also supported HB22-1355, Producer Responsibility Program for Recycling, which fosters infrastructure for recycling, and HB22-1159, which supports waste diversion.

TAKE ACTION

Addressing Climate Change Will Take Effort From Each of Us

Climate change is a global challenge, but there is a lot we can do locally to have an impact on the global system. Addressing the systems that cause climate change, like our economy’s reliance on fossil fuels, for example, requires a new, systems-change approach. This page offers ideas for actions that, if done collectively, can lead to positive change, in addition to actions that reduce your individual impact on the environment. Ways you can help:

- National, state, and local policy have a big impact on climate. Participate in the political system through voting, lobbying, and coalition-building to support policies that can reduce our impact on the planet and make our community more resilient.
- Studies show that people tend to trust information from their friends and family most. You can help others act on climate through your personal conversations. And, while you’re bringing others along on a journey to solve climate change, you just might be building a group to help with political or systems change.
- Sometimes systems change can feel daunting, but there are always opportunities to make changes to your own life to help the climate. Things like making your home more energy efficient, eating less meat, or choosing to walk or bike are better for the planet and can also have health benefits.

Find more ways to take action on our Resources page.²⁷

THANKS TO OUR PARTNERS AT THE CITY OF BOULDER FOR CRAFTING THIS LANGUAGE, AS WE ARE IN THIS TOGETHER.²⁸



RESOURCES

More Information

- 1 IPCC. (2021) "Summary for Policymakers." In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.
- 2 Associated Press. (2021) "Scientists Give Earth a 50-50 Chance of Hitting Key Warming Mark by 2026." National Public Radio.
- 3 World Meteorological Organization. (2022) Global Annual to Decadal Climate Update, Target Years: 2022 and 2022–2026.
- 4 Ibid.
- 5 IPCC. (2021) "Summary for Policymakers." In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.
- 6 United Nations Environmental Program. (2022) "UN Climate Report: It's 'Now or Never' to Limit Global Warming to 1.5 Degrees."
- 7 350 Colorado. (2021) "Climate Change in Colorado."
- 8 Union of Concerned Scientists. (2013) "Infographic: Western Wildfires and Climate Change."
- 9 Resilient Analytics. (2018) "The Impact of Climate Change: Projected Adaptation Costs for Boulder County, Colorado."
- 10 Weather Spark. (2022) "Summer 2022 Weather History in Boulder."
- 11 Otárola, Miguel. (2021) "In 2020, Colorado Saw One of Its Driest and Warmest Years Ever Recorded." CPR News.
- 12 Borunda, Alejandra. (2022) "The Drought in the Western U.S. Could Last Until 2030." National Geographic.
- 13 EPA. (2021) "Health Effects of Ozone in the General Population."
- 14 Resilient Analytics. (2018) "The Impact of Climate Change: Projected Adaptation Costs for Boulder County, Colorado."
- 15 Intergovernmental Panel on Climate Change. "Fourth National Climate Assessment". Archived from the original on 27 October 2019.
- 16 Chappell, Carmin. (2018-11-2) "Climate Change in the US Will Hurt Poor People the Most, According to a Bombshell Federal Report". CNBC. Archived from the original on 31 October 2019. Retrieved 2019-10-31.
- 17 See Internal Displacement Monitoring Center, Global Report on Internal Displacement 7 (2018), [internal-displacement.org/sites/default/files/publications/documents/2018-GRID.pdf](https://www.internal-displacement.org/sites/default/files/publications/documents/2018-GRID.pdf)
- 18 [nytimes.com/interactive/2020/07/23/magazine/climate-migration.html](https://www.nytimes.com/interactive/2020/07/23/magazine/climate-migration.html)
- 19 Otárola, Miguel. (2022) "The Second Half of 2021 was the Warmest in Colorado History, National Data Shows." CPR News.
- 20 Simpkins, Kelsey. (2022) "What the Marshall Fire Can Teach Us as We Prepare for Future Climate Catastrophes." University of Colorado Boulder.
- 21 Thy Vo, David Gilbert, and Olivia Prentzel. (2022) "Marshall fire officially becomes Colorado's most destructive, with 991 homes and businesses burned, officials confirm." Colorado Sun. Summers, DJ. (2022) "Insurers Tally \$1 Billion in Damage from Marshall Fire." KDVR Denver.
- 22 Simpkins, Kelsey. (2022) "What the Marshall Fire Can Teach Us as We Prepare for Future Climate Catastrophes." University of Colorado Boulder.
- 23 **Carbon Removal vs Carbon Capture** [edf.org/sites/default/files/documents/carbon%20removal%20vs.%20carbon%20capture%20fact%20sheet_FINAL.pdf](https://www.edf.org/sites/default/files/documents/carbon%20removal%20vs.%20carbon%20capture%20fact%20sheet_FINAL.pdf)
- 24 The Nature Conservancy. (2021) "The Nature of Innovation."
- 25 **Colorado Climate Equity Framework** drive.google.com/file/d/1fdxsUzR1SP0cTJnGZuwmLTdCscXH8pWF/view
- 26 **Colorado Environmental Justice Action Task Force Recommendations** drive.google.com/file/d/1l4rN-o3h3OJg8TciUzh-qxytULvyD_NE/view
- 27 **Ways to Take Action** bouldercounty.gov/environment/pacepartners.com
energysmartyes.com
- 28 bouldercolorado.gov/services/help-solve-climate-crisis