

BOARD OF COUNTY COMMISSIONERS BRIEFING PAPER

Climate Action Plan

December 6, 2022

☐ For Information
 ☐ For Discussion/Board Direction
 ☒ Consent to Place on Business/Hearing Agenda

Issue: Adoption of the Jefferson County Climate Action Plan.

Background: Resolution CC20-254 acknowledged the Global Climate Crisis, affirmed the County's Commitment to Climate Action, and approved the development of the County's first Climate Action Plan (CAP).

In Q1-Q2 2021, action began to identify a funding strategy for plan development. In partnership with the Community First Foundation, the Jefferson County Sustainability Commission Fund (the Fund) was created as a fundraising mechanism. The Sustainability Commission subsequently undertook a fundraising campaign to solicit donations to create the CAP. About \$60,000 was raised from corporate and private parties in Jefferson County, including a \$15,000 contribution from JCPH. The General Fund covered the remaining costs.

In Q3 2021, the County undertook an RFP process to solicit consultant services to facilitate development of the CAP. In January 2022, the contract was awarded to Brendle Group and the planning process began. Throughout 2022, Jefferson County Facilities Management (Sustainability) and the Jefferson County Sustainability Commission worked in conjunction with a consultant, Jefferson County Public Health, other County staff, local municipal representatives, Jefferson County community members, and the general public.

Discussion: In 2022, the planning process was completed over four phases:

- Q1: Project kickoff, GHG inventory, Steering Committee Meeting #1.
- Q2: Sector Area Research, Steering Committee Meeting #2.
- Q3: Community Engagement, Steering Committee Meeting #3.
- Q4: Development of the draft plan document accompanied by a public comment period, Steering Committee Meeting #4.

Public Engagement: Throughout the process, the public was kept informed via a project webpage on Jeffco.us, a public survey, two public open houses held both in-person and virtually, and regular stakeholder email updates.

Who was involved? The Project Management Team consisted of a small group of key County staff, Sustainability Commission members, and Brendle Group staff. The Steering Committee consisted of a diverse group of 30 representatives from the Board of County Commissioners, municipalities, community nonprofit groups, members of the public, the Sustainability Commission, JCPH, Diversity, Equity and Inclusion, and other county staff. Sector Focus Groups consisted of industry experts from Jefferson County in each of the six sectors focus areas in the Plan (Buildings, Energy Supply, Transportation, Ecosystems, Food & Waste, and Water).

CAP Goals: Two climate action goals have been defined for the County:

- Goal 1: Reduce GHG emissions by 73% by 2035 from 2015 levels while centering equity.
- Goal 2: Reduce climate risk for all people with priority to those experiencing the greatest disparities.

The Draft CAP provides an extensive set of solutions within each of the six sectors. Each solution is described in terms of its emissions reduction potential, resiliency benefits, preliminary action steps, estimated resource needs, available funding sources, equity considerations, and key indicators to measure progress.

Fiscal Impact:

Year of impact: 2023 - 2035

TABOR impact: No TABOR impact because no revenue being requested.

Existing grant or project:

New grant or project: New project

Requested in adopted budget: N/A

Ongoing or one-time: Ongoing

General Fund impact: None

Staffing impact: N/A

ARPA impact: \$90,000 previously approved for implementation

Match requirements: None

Mandate/Contractual obligation: N/A

Revenue Limits Impact: ☐ yes ☒ no

No impact to the County's TABOR Fiscal Year Spending Limit, no revenue is being requested.

SPA Review: Support, no concern.

Facilities Review: Originating Division. Will oversee \$90,000 of approved ARPA funds for implementation and also any future Grant funding.

BIT Review: No Fiscal Impact

Fleet Review: No Fiscal Impact

Human Resources Review (new FTE only): N/A

Recommendations: Move item forward to the Regular Agenda at a future Board of County Commissioner Hearing for review and approval.



Jefferson County *Draft* Climate Action Plan

Board of County Commissioners Staff Briefing

December 6, 2022

Today's Presentation

- High-level summary, including:
 - Overview
 - Background
 - Development process
 - Draft plan document
- Allow time for discussion, Q&A

What is a Climate Action Plan (CAP)?

- Comprehensive roadmap that outlines solutions for reaching our climate goals for community-wide Jefferson County
- Approx. 100-page written document
- Developed over 12-month planning process with an external consultant
- Input from diverse set of stakeholders, public, & county staff
- Currently in draft form; seeking final approval from BCC in December, leading to implementation beginning 2023.

History

September 2020

- Resolution No. CC20-254 Adopted by BCC

Q1-Q2 2021

- Identification of funding
- Fundraising campaign led by Jefferson County Sustainability Commission

Q3-Q4 2021

- RFP for consultant services to facilitate development of a CAP

Jan 2022

- Contract awarded to Brendle Group
- Project Kickoff

Plan Development Timeline

Jan-April 2022

- Project Kickoff (*review of GHG inventory and existing plans*)
- Steering Committee Mtg #1
- Stakeholder Email Update #1

April-May 2022

- Sector Area Research
- Steering Committee Mtg #2
- Stakeholder Email Update #2

May-Sept 2022

- Community Engagement
- Steering Committee Mtg #3
- Stakeholder Email Update #3

Sept-Dec 2022

- Drafting of Plan Document
- Steering Committee Mtg #4
- Stakeholder Email Update #4
- Plan Review (*public comment and presentation to Board of County Commissioners*)

Plan Development Contributors



Community Engagement Summary



Public Survey

Open Jun 16 - Aug 10
708 English responses
9 Spanish responses



Open Houses (virtual)

73 total registrants
13 attended Aug 3 (33% of registrants)
15 attended Aug 8 (45% of registrants)



Public Comment Period

Nov 14 – Nov 27
Draft Plan available for public review and comment
27 comments received; overwhelmingly in support



Stakeholder Email Updates

Email updates delivered to ~230 stakeholders



Project Webpage

Maintained a comprehensive project webpage on Jeffco.us

Plan Components

GOALS



Reduce greenhouse gas (GHG) emissions by 73% by 2035 from 2015 levels while centering equity.



Reduce climate risk for all people with priority to those experiencing the greatest disparities.

CLIMATE SECTOR AREAS



ECOSYSTEMS



FOOD AND
WASTE



WATER



BUILDINGS



ENERGY
SUPPLY



TRANSPORTATION

SOLUTIONS

Opportunities to catalyze community action and accelerate progress toward our goal.

Goals



Goal 1:

Reduce greenhouse gas (GHG) emissions by 73% by 2035 from 2015 levels while centering equity.



Goal 2:

Reduce climate risk for all people with priority to those experiencing the greatest disparities.

Sectors



Solutions

- 23 Solutions across all Sectors

Sector	Solution	
		2035 GHG Emissions Reduction Potential
		Resiliency Benefits
		Preliminary Action Steps (2023-2025)
		Implementation Team
		Estimated Resource Needs (2023-2025)
		Available Resources
		Equity Considerations
		Key Indicators

Priority Solutions:

Those with greatest impact on goals and those the County can significantly influence

Non-priority solutions

- F-3: Exploration of Funding Sources
- EN-3: Resilient Grid Infrastructure
- EN-4: Biomass Power
- EN-5: Local Energy Workforce
- T-3: Efficient Transportation Systems
- FW-2: Climate-Smart Agriculture
- FW-3: Waste Diversion
- FW-4: Low Carbon Materials and Food
- FW-5: Landfill Gas Capture

Sector	Solution	2035 GHG Emission Reduction Potential			Resiliency Benefits
Foundational	F-1: Increased Public Awareness about Climate Change	Not estimated			Medium-High
	F-2: Improved Emergency Preparedness and Response	Not estimated			High
Buildings	B-1: Climate-Resilient and Low-Carbon New Construction	0-3%	3-10%	10-20%	High
	B-2: Climate-Resilient, Efficient, and Healthy Homes	0-3%	3-10%	10-20%	High
	B-3: Climate-Resilient, Efficient, and Healthy Commercial, Public, and Institutional Properties	0-3%	3-10%	10-20%	High
Energy Supply	EN-1: Local Renewable Energy Generation and Storage	0-3%	3-10%	10-20%	Medium
	EN-2: Utility-Scale Renewable Energy Generation and Storage	0-3%	3-10%	10-20%	Medium
Transportation	T-1: Electric Vehicle Adoption	0-3%	3-10%	10-20%	Medium
	T-2: Multimodal Transportation Systems and Land Use Planning	0-3%	3-10%	10-20%	Medium-High
Ecosystems	EC-1: Preserve the Natural Environment	Not estimated			High
	EC-2: Create Urban Systems that Mimic the Natural Environment	Not estimated			High
Food & Waste	FW-1: Access to Healthy, Locally Produced and Culturally Relevant Foods	Not estimated			High
Water	W-1: Water Conservation	Not estimated			Medium
	W-2: Diverse and Resilient Water Supply	Not estimated			High

Implementation Structure

- Considering limits of jurisdiction, staff capacity, and budgetary constraints, Jeffco government **cannot** reach the goals set forth in the CAP **acting alone**.
- **Will require** collaboration and contribution from:
 - County government (staff and Boards/Commissions)
 - Municipalities (cities & towns)
 - Organizations (non-profits, HOAs, faith-based orgs, etc.)
 - Businesses
 - Community members

Implementation Participants

Lead Coordination Team (FM Sustainability Manager and Coordinator)	Cross-Departmental County Climate Team	Community Partners	Local Government Partners	Sustainability Commission
• Coordinate with County staff • Track and report progress • Coordinate with partners and Sustainability Commission	• <i>First step of implementation: Confirm participation from departments</i> • Confirm upcoming priority actions • Support tracking progress	• Help move forward on solutions and actions	• Align climate action goals and solutions • Share past and current climate action efforts	• Act as plan implementation advisors

Additional Implementation Considerations

Available resources are summarized for every solution

Anticipated resources are summarized in Appendix B

- Inflation Reduction Act
- Infrastructure Investment and Jobs Act
- Colorado Transportation Electrification Enterprises

Solution F-3 involves **exploring additional funding sources** for implementation

Equity considerations are embedded in each Solution for implementation

Thank you!

- Discussion, Questions & Answers

JEFFERSON
COUNTY COLORADO



DRAFT Climate Action Plan 2022



Climate Action Plan 2022

At-A-Glance



The climate crisis can no longer be ignored. Already, Jefferson County is experiencing the results of increasing global temperatures, including hotter days, increased wildfires, and poor air quality. Climate change often disproportionately impacts certain groups of people including households with lower incomes, those with health conditions, and older adults.

To address this crisis, the Jefferson County Sustainability Commission and Jefferson County Public Health initiated a discussion with the Board of County Commissioners which led to the passage of Resolution CC20-254, declaring climate change a critical priority and approving the development of this Climate Action Plan.

This plan takes a dual approach to climate action: reducing greenhouse gas (GHG) emissions and building community capacity to withstand the inevitable impacts of climate change. This approach builds on existing countywide efforts, including the 2021 Jefferson County Hazard Mitigation Plan, as well as climate-related plans from cities and towns within the county.

OUR CLIMATE GOALS



GHG Reduction Goal

Reduce greenhouse gas (GHG) emissions by 73% by 2035 from 2015 levels while centering equity.



Resilience Goal

Reduce climate risk for all people with priority to those experiencing the greatest disparities.

OUR APPROACH TO CLIMATE ACTION

Achieving our goals will require action from all Jefferson County community members and partners. To ensure we are all working together toward our goals, Jefferson County will use the following structure for plan implementation.

- Lead Coordinator (Jefferson County Sustainability Program Manager)
- Jefferson County Cross-Departmental County Climate Team
- Community Partners
- Local Government Partners
- Sustainability Commission

In addition to solution-specific equity considerations, Jefferson County is committed to equitable engagement during implementation. This means building relationships and co-creating climate initiatives with community members and organizations that represent those who are disproportionately impacted by climate change.

OUR CLIMATE SOLUTIONS

The planning process identified 14 priority solutions, reflecting those that offer the greatest impact and that Jefferson County has the ability to significantly influence.

Sector	Solution	2035 GHG Emission Reduction Potential	Resiliency Benefits
Foundational	F-1: Increased Public Awareness about Climate Change	Not estimated	Medium-High
	F-2: Improved Emergency Preparedness and Response	Not estimated	High
Buildings 	B-1: Climate-Resilient and Low-Carbon New Construction	0-3% 3-10% 10-20%	High
	B-2: Climate-Resilient, Efficient, and Healthy Homes	0-3% 3-10% 10-20%	High
	B-3: Climate-Resilient, Efficient, and Healthy Commercial, Public, and Institutional Properties	0-3% 3-10% 10-20%	High
Energy Supply 	EN-1: Local Renewable Energy Generation and Storage	0-3% 3-10% 10-20%	Medium
	EN-2: Utility-Scale Renewable Energy Generation and Storage	0-3% 3-10% 10-20%	Medium
Transportation 	T-1: Electric Vehicle Adoption	0-3% 3-10% 10-20%	Medium
	T-2: Multimodal Transportation Systems and Land Use Planning	0-3% 3-10% 10-20%	Medium-High
Ecosystems 	EC-1: Preserve the Natural Environment	Not estimated	High
	EC-2: Create Urban Systems that Mimic the Natural Environment	Not estimated	High
Food & Waste 	FW-1: Access to Healthy, Locally Produced and Culturally Relevant Foods	Not estimated	High
Water 	W-1: Water Conservation	Not estimated	Medium
	W-2: Diverse and Resilient Water Supply	Not estimated	High

The remaining nine solutions were also identified as critical to achieving our goals.

- F-3: Exploration of Funding Sources
- EN-3: Resilient Grid Infrastructure
- EN-4: Biomass Power
- EN-5: Local Energy Workforce
- T-3: Efficient Transportation Systems
- FW-2: Climate-Smart Agriculture
- FW-3: Waste Diversion
- FW-4: Low Carbon Materials and Food
- FW-5: Landfill Gas Capture

ACKNOWLEDGEMENTS

Building a countywide climate action plan with equity at its center requires dedicated coordination across a broad landscape of sectors and stakeholders. We are grateful to the committed members of our Project Management Team and Steering Committee for helping us connect with more than 730 stakeholders (see Appendix D: Community Engagement Summary), and for helping to synthesize the input we received into this cohesive plan addressing the climate crisis. Importantly, we could not have completed this work without the support of the Board of County Commissioners and the sponsors who contributed funding for this project.

Project Management Team

- **Jabez Meulemans**, Jefferson County Facilities Management – Sustainability
- **Jeff Wong**, Jefferson County Sustainability Commission
- **James Rada**, Jefferson County Public Health
- **Kate Newman**, Jefferson County Acting County Manager
- **Kevin Morse**, Jefferson County Sustainability Commission
- **Kevin Trautman**, Jefferson County Facilities Management – Sustainability
- **Mark Danner**, Jefferson County Facilities Management

Steering Committee

- **Amy Raaz**, Jefferson County Inclusion Diversity Equity Accessibility (IDEA) Task Force
- **Andy Kerr**, Jefferson County Board of County Commissioners
- **Ciarra Thompson**, Jefferson County Public Health
- **Claudia Aguilar**, Jefferson County IDEA Task Force
- **Debby Bower**, Jefferson County Public Health
- **Enessa Janes**, City of Arvada
- **Ginny Ades**, Evergreen Sustainability Alliance
- **Harriet Hall**, Jefferson County Board of Health
- **Jonathan Wachtel**, City of Lakewood
- **Kimberly Pineda**, Jefferson County Public Health
- **Marika Sitz**, Jefferson County Human Resources - Diversity, Equity, Inclusion
- **Mary Hester**, City of Wheat Ridge
- **Paige Johnson**, City of Edgewater
- **Paul Sutton**, Town of Morrison
- **Taryn Teeple**, Jefferson County Human Services
- **Theresa Worsham**, City of Golden

Jefferson County Board of County Commissioners

- **Andy Kerr**, District 2
- **Lesley Dahlkemper**, District 3
- **Tracy Kraft-Tharp**, District 1

Consulting Team

- **Brendle Group**
- **Western Urb Sustainability Advisors**

Sponsors

Premier Platinum (\$25,000+)

- [Terumo Blood and Cell Technologies](#)

Platinum (\$10,000-\$24,999)

- [Jefferson County Public Health](#)

Gold (\$5,000-\$9,999)

- [Coors Brewing Company](#)
- [Ball Corporation](#)

Silver (\$1,000-\$4,999)

- [Pivot Energy](#)
- [Moye White](#)
- BL Ellison
- Rachel Emmer
- Sandra VanDeHey

Bronze (\$500-\$999)

- [McKinstry](#)
- [1st Bank](#)
- [Ambient Energy](#)
- Andy and Ginny Ades

Community

- 40+ individual donors



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THE CASE FOR CLIMATE ACTION IN JEFFERSON COUNTY

Why We Are Here

The Climate Crisis

The climate crisis can no longer be ignored. Already, we are experiencing the impacts of hotter days, increased wildfires, and poor air quality. Community members across the county are expressing concerns about the future livability of Jefferson County, wondering how the climate crisis will impact public health, the availability of water, access to healthy food, ecosystems, and more.

Addressing the climate crisis will require a dual approach: 1) reducing the greenhouse gas (GHG) emissions that drive climate change and 2) building community capacity to withstand the inevitable impacts of climate change. To prevent the worst impacts of climate change, we must support and contribute to the global reduction of GHG emissions. Simultaneously, we must bolster the resiliency of our community members to withstand the impacts of climate change and focus on those who will bear the greatest impacts of and are least able to combat those impacts. This requires placing equity at the center of Jefferson County's Climate Action Plan to ensure a better future for all.

We're excited for you to join us on our climate journey. The climate crisis affects each of us and will require swift and decisive action at the regional, local, and individual level. We hope this plan inspires you to mobilize your household, business, community, or government to help us create a safe and healthy future for everyone in Jefferson County.

Overview of Climate Change

What is climate? Climate is the long-term pattern of temperature and precipitation (e.g., rain, snow) that defines a region. While the weather can change every day – or even more often in Colorado – a region's climate is relatively constant over time. For instance, we know that a desert's climate is generally dry. Climate can describe a region, like the Mountain West, but it can also describe global conditions. Right now, our global climate is warming.

Climate conditions can change over time. Consider that at some point in our Earth's history, much of the planet was covered in ice and there have been periods of time on Earth even hotter than we experience on average today, both of which limited the habitability for humans. However, there is one big difference about the climate change we are experiencing now. In the entirety of human existence on this planet, the climate has never changed this rapidly. Normally, changes occur over hundreds or thousands of years; the changes in temperature we see today are occurring over only decades. As shown in Figure 1, Earth's temperature has risen by 0.14° F (0.08° C) per decade since 1880, but the rate of warming since 1981 is more than twice that: 0.32° F (0.18° C) per decade. And we know why: an accelerated increase in atmospheric greenhouse gas concentrations due to human activity.

Words from the Community

When asked how climate change has impacted their lives, residents said:

"Food pantries in mobile markets/parking lots closing down due to extreme heat"

"Housing infrastructure insufficient to combat extreme heat (inadequate cooling)"

GLOBAL AVERAGE SURFACE TEMPERATURE

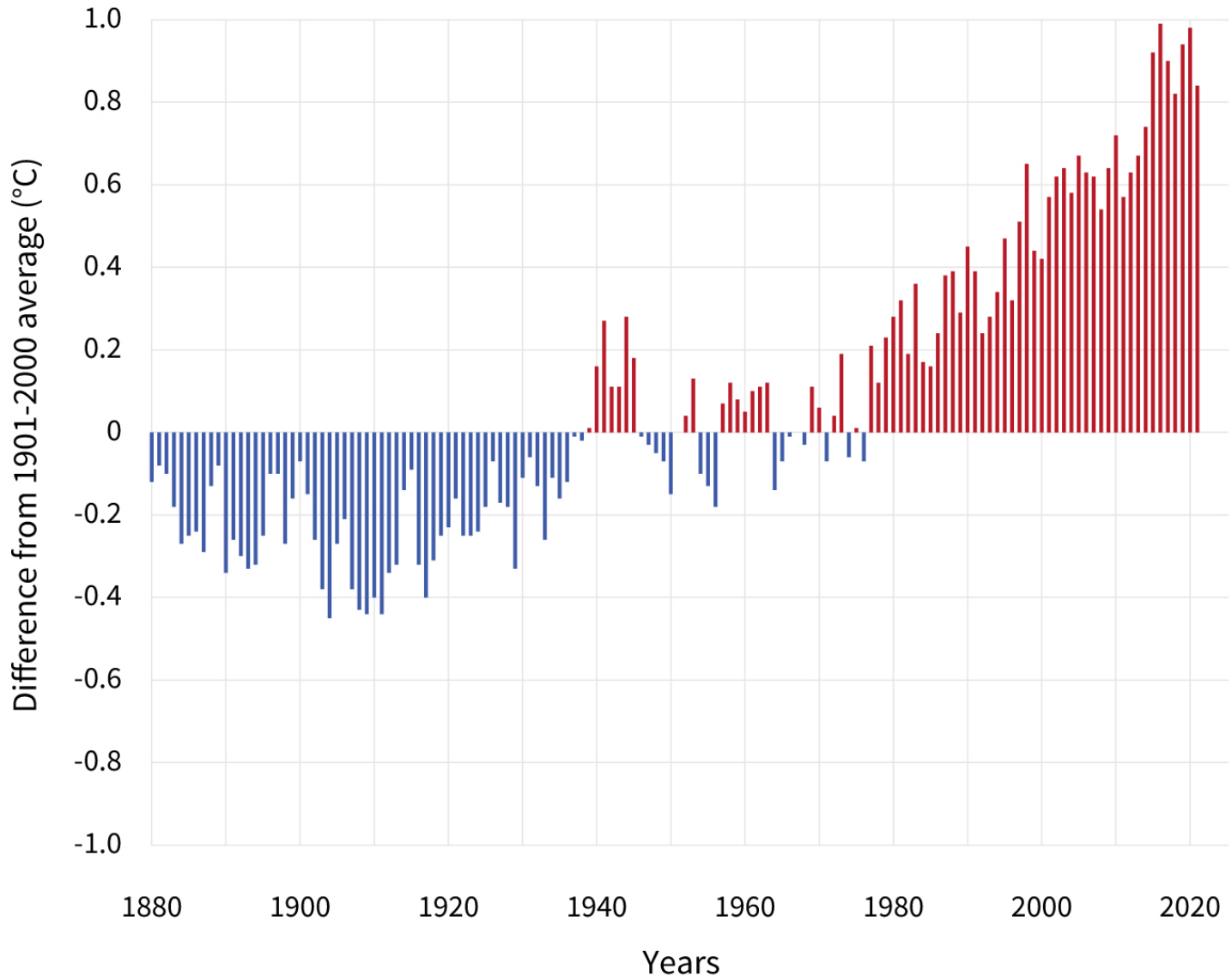


Figure 1: Global Average Surface Temperature: “Yearly surface temperature compared to the 20th-century average from 1880–2021. Blue bars indicate cooler-than-average years; red bars show warmer-than-average years (NOAA Climate.gov)

What are greenhouse gases (GHG)? GHGs include a wide range of compounds that are present in the Earth’s atmosphere. Carbon dioxide is the most commonly mentioned GHG, but there are others too, like methane and nitrous oxide. These gases insulate our planet by letting in sunlight but trapping heat so it can’t escape; just like a greenhouse that’s used to grow tomatoes.

While some level of GHGs occurs naturally, human activities are adding gases to the atmosphere faster than ever before. While there are many activities that release GHG emissions, burning fossil fuels – like coal, natural gas, and gasoline – is the greatest contributor. While GHGs occur naturally in the Earth’s atmosphere, GHG emissions related to human activity are raising the average global temperature of our planet. On a global scale, these increased temperatures result in changes to climate norms, causing more frequent and extreme flooding, drought, storms, and other natural hazards.

Jefferson County's Climate Risks and Hazards

What climate change impacts are we experiencing in Jefferson County? In Colorado, temperatures have risen 2°F since 1900, making the state hotter and drier (Lukas & Payton, 2020). These hot and dry conditions set the stage for wildfires, which are also becoming more frequent and extreme. Four of the top five largest wildfires have occurred between 2018-2020, and all 20 of our largest wildfires have occurred since 2001 (Colorado Division of Fire Prevention and Control, 2022). Dry conditions and wildfires both worsen flood risk – it's harder for water to seep into dry ground, while wildfires remove the vegetation that normally slows the flow of water. Finally, these warm and dry conditions are leading to earlier snowmelt and runoff, and to a decrease in water availability.

Climate Impacts in Colorado



Temperatures have risen 2°F since 1900



Four of the top five largest wildfires have occurred between 2018-2020



Dry conditions and wildfires both worsen flood risk



Warm and dry conditions are leading to earlier snowmelt and runoff, and to a decrease in water availability

Jefferson County is already experiencing these changes, and more. The Jefferson County [Hazard Mitigation Plan](#) (HMP) identifies multiple primary climate-related hazards: drought, extreme temperature, flood, hailstorm, severe winter storm, and wildfire.

Unfortunately, we are already seeing the public health and safety impacts of some of these hazards on our communities. Events like the Marshall Fire in neighboring Boulder County underscore the stark reality of a region experiencing simultaneous community growth and increasing rural and urban wildfire risk.

Climate change is also threatening one of our favorite reasons many of us choose to live in Colorado: our natural environment. Warmer temperatures, less water, and wildfire debris all impact the health of our lakes, rivers, and streams as well as threaten the survival of certain fish. Hot and dry conditions make trees less able to fight off pests and diseases, resulting in trees dying at a faster rate. Additionally, a warmer and drier climate may make it more challenging for some native tree species to survive in their most vulnerable seedling and sapling stages. This means that the ecosystems that do rebound after a fire may look quite a bit different than those here now.

Words from the Community

When asked which climate risks and impacts worried them the most, residents noted:

“Economic development impacts associated with water scarcity”

“Wildfire in Evergreen; proximity to wildfire-prone areas”

“Health impacts of extreme drought and wildfire”

These climate-related hazards also have impacts on our economic health. Colorado's Water Conservation Board (CWCB) developed an [interactive dashboard](#) to explore the anticipated economic impacts of climate change on infrastructure. Note that this does not include health - or environmental-related costs. The table below summarizes the modeled range of economic impacts associated with drought, flooding, and wildfire in Jefferson County. The lowest end of the range reflects current population and current climate conditions; the upper end of the range reflects anticipated economic impacts under high population growth and a more severe (e.g., hotter, drier) climate (Table 1).

Table 1: Anticipated Flood and Wildfire Impacts in Jefferson County (Colorado Water Conservation Board, 2019)

Anticipated Annual Economic Damages in Jefferson County		
	Using Current Climate, Current Population (in 2019 dollars)	Using More Severe Climate, High Population Growth (in 2019 dollars)
Drought	\$210,000	\$1,800,000
Flood	\$12,000,000	\$20,000,000
Wildfire	\$21,000,000	\$54,000,000

Climate Change and Air Pollution

When you think of air pollution, you might picture smoke, hazy days, or smog. Though greenhouse gases contribute to climate change, they aren't considered air pollutants in the traditional sense. However, increased temperatures do increase the likelihood and formation of certain air pollutants. For instance, we've already discussed how climate change is increasing the likelihood of wildfires, which can increase our exposure to wildfire smoke. Increased temperatures also increase the formation of ground-level Ozone. Ozone higher up in the atmosphere is essential to the livability of our planet – you may have heard of the Ozone layer, which protects us from some of the sun's UV rays. However, Ozone that forms nearer to the ground is harmful to our health, and the health of our environment. Ground-level ozone forms when certain pollutants – from activities like driving gas-powered vehicles and burning coal for electricity – come into contact with heat and sunlight. This means that activities that reduce GHG emissions can also reduce air pollution, like driving electric cars or investing in renewable energy (EPA, 2022).

How we measure air pollution and GHG emissions is also related, but different. Air quality is determined by the concentration of pollutants in the air. However, GHG emissions inventories demonstrate the level of emissions our activities contribute to the global atmosphere. Air pollution is one way we experience climate change. GHG emissions are a way to understand how we contribute to climate change.



How Climate Change Impacts Health, Social, and Economic Equity

Climate change has the potential to impact every person, but it often disproportionately impacts certain groups. Those who contribute least to climate change often experience the worst impacts from it. How likely someone is to experience a climate impact is significantly affected by where they live. For instance, if you live in a low-lying area, you may experience more frequent flooding. But where people live isn't always driven by personal choice. A long history of racist policies, such as redlining and race-based covenants, has dictated where communities of color can and cannot live as well as restricting investment that could have otherwise reduced their climate risk. For instance, one study showed that redlined neighborhoods in the County of Denver have significantly fewer trees as well as significantly higher temperatures compared to predominately white neighborhoods (Hoffman, Shandas, & Pendleton, 2020). The cost of housing is another major driver of where people live. Sometimes, the most affordable areas to live are in high-risk locations, such as flood-prone areas or near major air pollution sources.

How a climate hazard affects a person also depends on social and economic factors, like age, health condition, income, and ability to communicate in English. For instance, someone who speaks English as a second language may have difficulty interpreting emergency communications, if the information is only shared in English. Households with lower incomes may not have access to air conditioning or may be less able to pay higher electricity bills during especially hot months. Older adults or persons with disabilities may have more trouble evacuating during climate emergencies.

Finally, it is critical to think about the intersection of risk and impact. Often, the factors that dictate how likely someone is to experience a hazard are the same factors that dictate how severely that person will be impacted. For instance, race and income are both drivers of one's geographic location and health conditions. This intersection highlights the importance of centering equity throughout all climate action to reduce both the risk and impacts to our most affected community members.

Climate Equity

People of color, Indigenous people, lower-income individuals, historically underrepresented groups, children, and older adults, and those experiencing multiple environmental burdens are all considered “disproportionately impacted” by climate change. Successful climate action, through effective mitigation and adaptation, is unlikely without centering the voices, needs, assets, and insights of disproportionately impacted communities (Colorado Department of Public Health and Environment, 2021).

What We've Done So Far

Jefferson County is no stranger to climate action. The Jefferson County Sustainability Commission has been advancing climate priorities since its formation in 2014. In 2020, the Sustainability Commission spearheaded an effort to create and adopt the county's first climate-specific resolution declaring climate change a county priority ([Resolution No. CC20-254](#)). And in 2021, in partnership with the Community First Foundation, the Sustainability Commission established a dedicated fund to support the advancement of climate action, including the development of Jefferson County's first climate action plan. The Sustainability Commission has also successfully advanced many climate-related initiatives, including achieving SolSmart Gold Designation, encouraging businesses to finance energy efficiency improvements through Colorado Commercial Property Assessed Clean Energy (C-PACE), leading a countywide energy planning and implementation process through Xcel Energy's Partners in Energy, and supporting the creation of Jefferson County's first Sustainability staff position to address County operations.

There are numerous County government and partner-led planning efforts seeking to advance different sectors of climate action, including transportation, energy use, building and development, and hazard planning. Table 2 below summarizes some of the plans to advance climate action in communities across Jefferson County.

Table 2: Relevant Plans by the County and other Government Agencies

County Plans	Plans by Other Government Agencies
• Comprehensive Master Plan (CMP) • Strategic Plan • Energy Action Plan • Hazard Mitigation Plan (HMP) • Transportation Plan • Bicycle Plan • Community Wildfire Protection Plan (CWPP) • Community Health Improvement Plan	• 2021 Westminster Sustainability Plan • 2020 Westminster Electric Vehicle Action Plan • 2020 Golden Sustainability Strategic Plan • 2019 Golden Transportation Master Plan • 2019 Edgewater Sustainability Plan • 2020 Edgewater Energy Action Plan • 2018 Wheat Ridge Environmental Sustainability Action Plan • 2018 Wheat Ridge Energy Action Plan • 2018 Lakewood Bicycle System Master Plan • 2015 Lakewood Sustainability Plan • 2017 Arvada Bicycle Master Plan • 2012 Sustain Arvada Plan • DRCOG Metro Vision Plan • State of Colorado GHG Pollution Reduction Roadmap

The Need to Go Further

Resolution CC20-254

While Jefferson County is working to advance climate-related initiatives, addressing the climate crisis requires a focused and coordinated effort.

On September 15, 2020, the Board of County Commissioners (BCC) approved [Resolution No. CC20-254: Resolution Acknowledging the Global Climate Crisis and Affirming the County's Commitment to Climate Action](#). The Resolution declared the following commitments:

1. Climate change is a critical priority for Jefferson County to address.
2. Jefferson County's actions will remain in alignment with the most current scientific research regarding climate change.
3. A Climate Action Plan will be developed to create strategies to reduce GHG emissions within Jefferson County consistent with or exceeding the state's goals and objectives.
4. Jefferson County invites and encourages its community to actively participate in the climate action process to advocate for their priorities.
5. Jefferson County commits to addressing the concerns of underrepresented and underserved communities during the climate planning process.
6. This resolution serves as the foundation of this plan, one of the first-of-its-kind in the nation.

Developing Jefferson County's Climate Action Plan

Planning Process Timeline

In response to Resolution CC20-254, Jefferson County staff coordinated with members of the Sustainability Commission to secure funding from community sponsors (see Acknowledgements) and begin a yearlong planning process to develop the Climate Action Plan (Figure 2).



Figure 2: Planning Process Timeline

Plan Contributors

Those who helped create this plan can be grouped into four categories:

Project Management Team

Included the Jefferson County Acting County Manager, Jefferson County staff from Facilities Management and Public Health, members of the Sustainability Commission, and the project consultants. This team was responsible for organizing planning process activities, collecting, and analyzing input from stakeholders, conducting additional analysis to inform solutions, and bringing it all together to develop this plan.

Steering Committee

Was organized to act as advisors to the process and included staff from Jefferson County's member jurisdictions, County staff, a County Commissioner, and members from the Jefferson County Inclusion Diversity Equity Accessibility (IDEA) Task Force (see Acknowledgements).

Sector Focus Area Groups

Included technical experts for each of the six plan sectors. These groups helped identify existing initiatives and potential solutions.

Community Members

Shared their climate change concerns and ideas to ensure the plan's solutions addressed community priorities. Feedback was gathered through a community survey, two open houses, and a public comment period for the draft plan.

JEFFERSON COUNTY'S CLIMATE ACTION GOALS

Jefferson County aspires to be a leader in climate action by decreasing global GHG emissions to prevent the worst effects of climate change and ensuring that everyone in our community can prepare for and recover from climate change impacts. Achieving these outcomes will require an innovative and collaborative approach. The County must play a role as both a leader and a regional convener around climate action. We commit to centering equity at the heart of our efforts. This means ensuring that the community members most impacted by climate change have access to resources and technologies to help them adapt and thrive.

Through this planning process, Jefferson County identified two climate action goals that define where we want to go and how we will know if we've arrived at our desired destination:



Goal 1:

Reduce greenhouse gas (GHG) emissions by 73% by 2035 from 2015 levels while centering equity.



Goal 2:

Reduce climate risk for all people with priority to those experiencing the greatest disparities.

Goal 1: Reduce Greenhouse Gas Emissions

Historical and Projected Emissions

In 2015 and 2018, Jefferson County conducted GHG emission inventories to identify the source and scale of countywide GHG emissions¹. Jefferson County's emissions come from three primary sources: transportation, electricity, and fuel for heating and cooking (natural gas, propane, kerosene, oil). Between 2015 and 2018, transportation became the largest contributor of GHG emissions in the county, reflecting national trends (Figure 3)

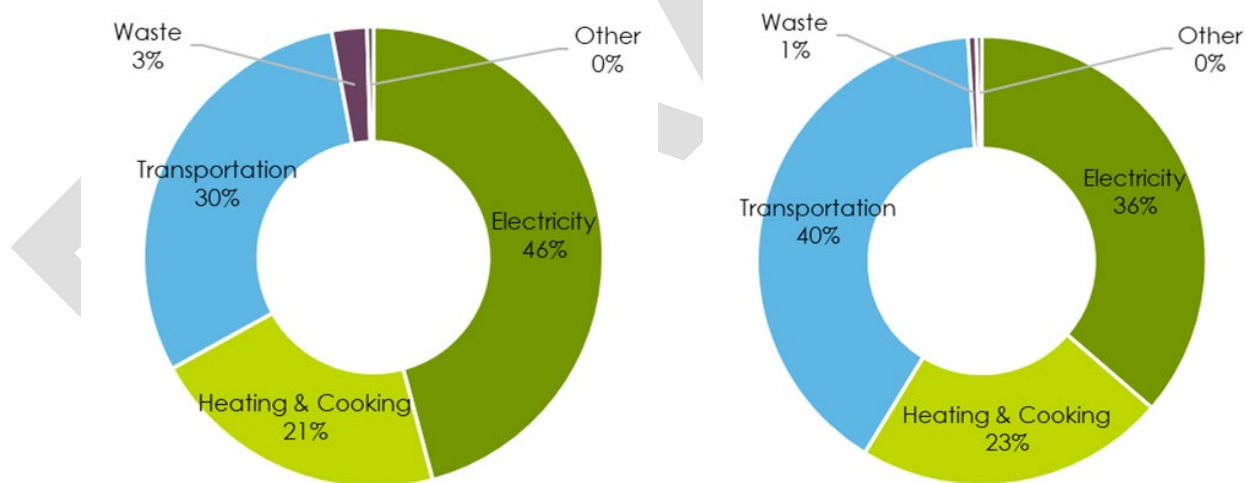


Figure 3: Jeffco 2015 (left) and 2018 (right) GHG Emissions

¹ These inventories measured Scope 1 emissions (from source located within the county boundary) and Scope 2 emissions (from grid-supplied electricity, heat, steam, and/or cooling). Scope 3 emissions (occurring outside of county boundary, but as a result of activities taking place with the county boundary, such as waste generated in the county but disposed of outside the county) were not included.

This trend is largely due to the “greening of the grid” – as electric utilities serving Jefferson County (Xcel Energy, United Power, and CORE Electric Cooperative) add more renewable energy to their power mix, GHG emissions from electricity production shrinks. While electricity emissions decreased between 2015 and 2018, transportation emissions increased due to more cars driving more miles.

If we continue growing on our current trajectory (business-as-usual or BAU), our annual GHG emissions will increase by 13% by 2050. A growing population will drive up residential emissions associated with powering homes, gasoline for cars, and waste generation. A growing employment sector will drive up commercial and industrial emissions associated with powering businesses as well as gasoline and diesel used for commercial fleets.

However, this increase does not account for action by electric utilities serving Jefferson County to add more renewable energy as a percent of their power mix, nor the anticipated improved federal fuel efficiency standards for new cars. When we account for these external factors (adjusted BAU), our annual GHG emissions will decrease by 28% by 2050 (Figure 4). However, the best available science tells us that a much greater reduction is needed to avoid the worst impacts of climate change.

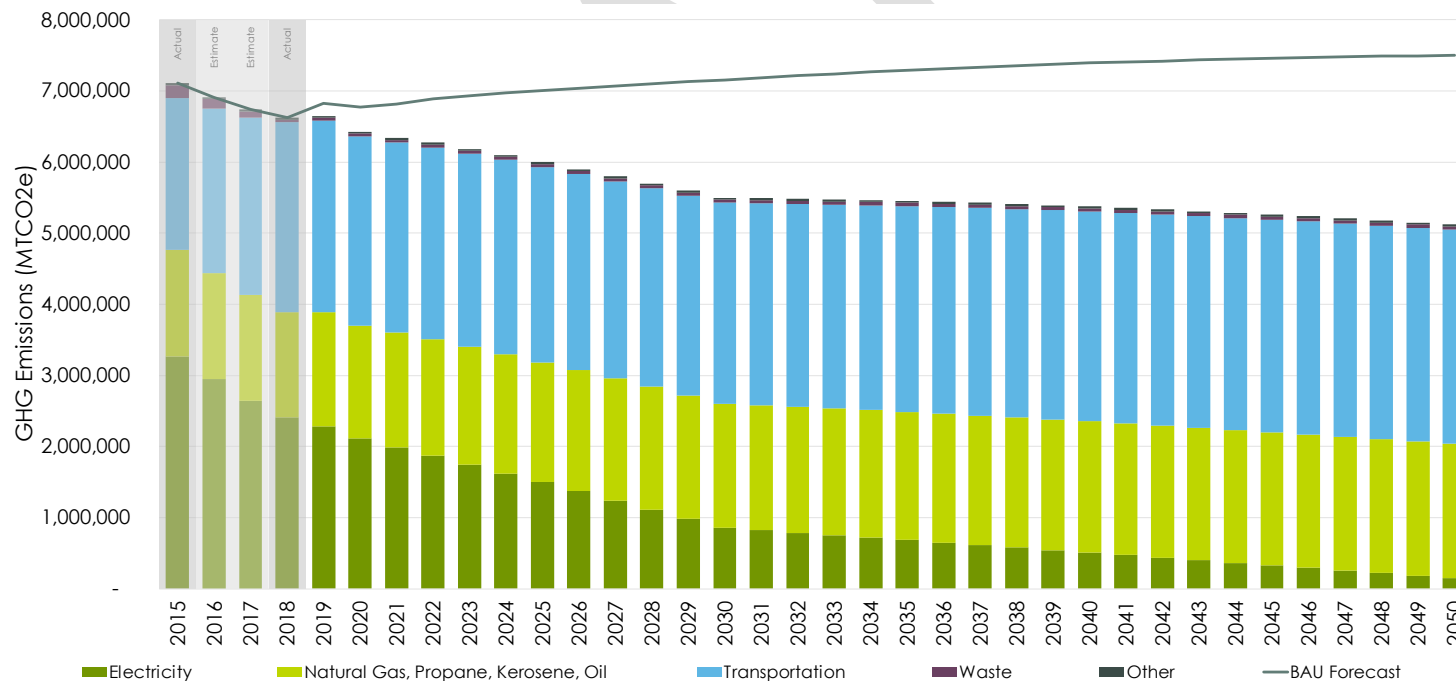


Figure 4: Jefferson County Adjusted Business-As-Usual Forecasted GHG Emissions

Our GHG Emissions Reduction Goal

How much do we need to reduce our GHG emissions to prevent the irreversible impacts of climate change? Science-Based Targets help communities understand how much they need to reduce GHG emissions.

Science-Based Targets

Science-Based Targets (SBTs) provide a methodology for setting GHG emission reduction targets in alignment with the Paris Agreement goal of keeping global warming well below 1.5° Celsius, while also prioritizing global emissions equity. This means that countries and cities most responsible for current global emissions are responsible for reducing their emissions at a faster rate than those that are still developing their economies.

To do our part to prevent warming of the climate beyond 1.5°C globally, Jefferson County set the following goal based on the Science-Based Target approach:



Reduce greenhouse gas (GHG) emissions by 73% by 2035 from 2015 levels while centering equity.



The pace of this emissions reduction goal exceeds the climate goals set by the State of Colorado, as shown in Figure 5.

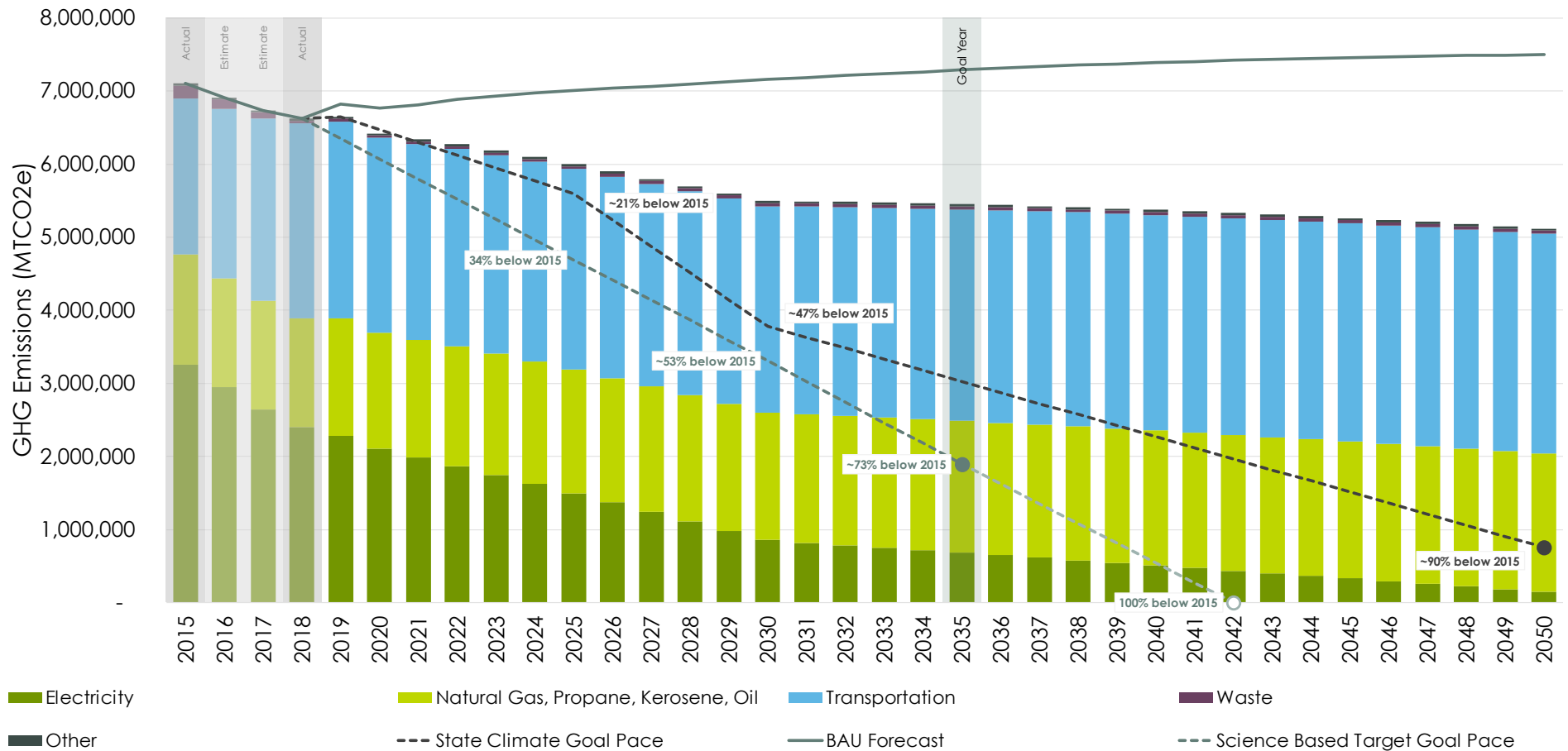


Figure 5: Jefferson County GHG Emissions Forecast and Goal

This plan outlines solutions to meet this GHG emissions reduction goal, while centering equity. We can accomplish this while ensuring both that our community members most impacted by climate change have access to resources and technology that reduce GHG emissions and that costs associated with reducing GHG emissions are not placed on those least responsible for current and past GHG emissions

What It Could Take to Achieve Our GHG Emissions Reduction Goal

To better understand what reaching our goal might look like, the following pathways were developed.

- **Pathway A** shows a list of potential outcomes that would add up to achieving 100% of our goal.
- **Pathway B** shows a list of potential outcomes that would add up to achieving 80% of our goal and would align with the State of Colorado's GHG emissions reduction goal².
- **Pathway C** shows a list of potential outcomes that would add up to achieving 50% of our goal.

These potential pathways, detailed in Table 3, are illustrative and would require achieving all the outcomes listed in each column. Note that these pathways are not the only ways to make progress. For example, if more progress is made in the transportation sector, then less would need to happen in the energy supply sector. Understanding these potential impacts helped us select our priority solutions for this plan and emphasized that achieving our goals will require action at the county, city/town, neighborhood, and individual levels.

² The State of Colorado set goals to reduce GHG emissions from 2005 levels by at least 26% by 2025, 50% by 2030, and 90% by 2050.

Table 3: Pathways to Achieving 100%, 80%, and 50% of Our GHG Emission Reduction Goal

SECTOR	DESCRIPTION	PATHWAY A: LEADING THE WAY AND ACHIEVING OUR GOAL	PATHWAY B: ALIGNING WITH STATE OF COLORADO GOALS, BUT NOT ACHIEVING OUR GOAL	PATHWAY C: MAKING PROGRESS, BUT NOT ACHIEVING OUR GOAL
FROM A BASELINE OF 2015...		Achieving 100% of our goal would result in a 73% reduction by 2035	Achieving 80% of our goal would result in a 59% reduction by 2035	Achieving 50% of our goal would result in a 37% reduction by 2035
Buildings	Construct all-electric new residential and commercial buildings countywide	100% of new buildings are all-electric by 2029	80% of new buildings are all-electric by 2035	50% of new buildings are all-electric by 2035
	Transition existing residential and commercial buildings to all-electric countywide	100% of existing HVAC and water heating building equipment are converted to all-electric ahead of the end of their useful life by 2035	80% of existing HVAC and water heating building equipment are converted to all-electric near the end of their useful life by 2035	50% of existing HVAC and water heating building equipment are converted to all-electric at the end of their useful life by 2035
	Implement energy efficiency in new buildings countywide	Achieve an average HERS score of 50 for new residential buildings and a new commercial building energy use intensity (EUI) of 25 kBtu/ft² by 2029	Achieve energy efficiency levels consistent with building energy codes	Achieve energy efficiency levels consistent with building energy codes
	Implement energy efficiency in existing buildings countywide	1,000 homes annually receive an energy audit 11% of the commercial building stock is retrocommissioned annually	750 homes annually receive an energy audit 8% of the commercial building stock is retrocommissioned annually	500 homes annually receive an energy audit 6% of the commercial building stock is retrocommissioned annually
Energy Supply	Increase the use of renewable energy through rooftop solar	1,900 new renewable energy credit (REC) owned rooftop solar installations annually	1,700 new REC-owned rooftop solar installations annually	1,200 new REC-owned rooftop solar installations annually
	Install utility scale renewable energy	1,000 MW of REC-owned community solar installed by 2035	625 MW of REC-owned community solar installed by 2035	150 MW of REC-owned community solar installed by 2035
Transportation	Reduce vehicle miles traveled (VMT)	11% reduction in VMT by 2035	9% reduction in VMT by 2035	5% reduction in VMT by 2035
	Increase all-electric vehicle sales	100% of light and heavy-duty vehicle sales are electric vehicles by 2026	80% of light and heavy-duty vehicle sales are electric vehicles by 2026	50% of light and heavy-duty vehicle sales are electric vehicles by 2035

Goal 2: Reduce Climate Risk

Disproportionate Climate Impacts

Not every Jefferson County community member is equally equipped to cope with the impacts of climate change. Some community members have a reduced ability to mitigate impacts from flooding, wildfire, or extreme heat – due to income limitations, health conditions, or other obstacles. Some community members are also facing greater climate threats like flooding and wildfires because of where they live. The Colorado Department of Public Health and Environment (CDPHE) [Climate Equity Framework](#) provides guidance for identifying these disproportionately impacted communities by considering communities of color, households with lower incomes, indigenous populations, and rural and linguistically-isolated communities. When exposed the climate hazards, disproportionately impacted communities will experience worse health and economic impacts than communities that, for example, may have fewer health issues or are more affluent.

The CDPHE developed Climate Equity Scores to identify disproportionately impacted areas throughout the state. These scores combine environmental burden data (like air pollution) with population characteristics (like income and education levels) to assess an area's ability to cope with climate impacts. Figure 6 reflects the Climate Equity Scores for census block groups in Jefferson County. Areas in darkest purple have the highest scores and are potential areas to prioritize for climate action and investment.

How You Can Use Climate Equity Scores

- Local governments could use this map to prioritize resources in areas with higher scores.
- Community organizations in areas with higher area scores could use this map to help prioritize areas to focus their efforts.
- Individuals could use this map to understand if their neighborhood may need assistance building resiliency to climate impacts and use this information to request support from their local government.

For more information, explore the [Climate Equity Data Viewer](#).

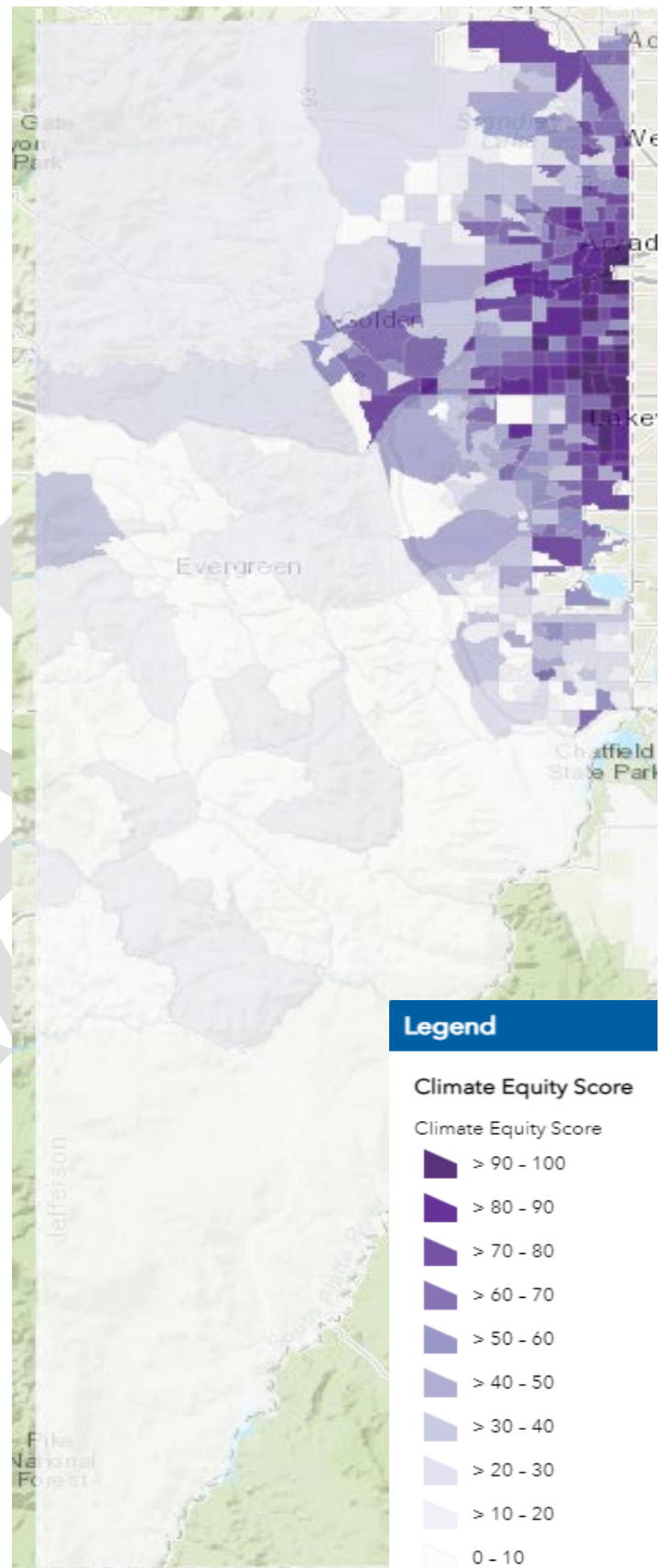


Figure 6: Jeffco's Climate Equity Scores by Census Block Group from CDPHE Climate Equity Data Viewer

Our Climate Resiliency Goal

While reducing our GHG emissions is critical to doing our part in avoiding the worst effects of climate change, helping our community cope with current and future impacts must also be included in our climate action approach. Jefferson County set the following goal to ensure that everyone can prepare for and recover from all climate hazards:



Reduce climate risk for all people with priority to those experiencing the greatest disparities.

Through the solutions outlined in this Plan, we can enhance our community's resiliency to climate risks. We can center equity by using CDPHE's Climate Equity Scores to prioritize investment, resources, and policies as well as reduce the correlation between population characteristics (like race and income) and health outcomes.



ACHIEVING OUR GOALS: JEFFERSON COUNTY’S APPROACH TO CLIMATE ACTION

This Climate Action Plan is one of the first of its kind – a countywide plan to reduce emissions not only in unincorporated areas, but also in incorporated jurisdictions. From city living in Edgewater to the mountain setting of Pine, Jefferson County has many diverse characteristics, and each requires a tailored approach to climate action. To achieve our goals, we will approach climate action in two distinct ways: 1) County-led Climate Action and 2) Equity-Centered Solutions. The following sections explore these approaches in greater detail.

County-Led Climate Action

Advancing Climate Action as a County Government

In partnership with its local governments, special districts, utilities, and community members, county governments have an important and distinct role to play in climate action. Table 4 summarizes the implementation roles Jefferson County can utilize to make progress toward our goals. The next section of this plan identifies which of these roles the County can play in each solution.

Table 4: County climate action roles and examples

County Role	Definition	Example
Lead by Example	Prioritizing and demonstrating climate action in County facilities and operations.	<i>Designing all-electric County facilities, powered by renewable energy.</i>
Convene	Bringing together cities and supporting partners to advance common goals in a unified manner.	<i>Facilitating the development of a regional codes cohort to take a unified approach to advancing building and development regulations.</i>
Research/Strategize	Leading research or planning efforts to advance climate initiatives.	<i>Conducting research of best practices to inform buildings and development code updates.</i>
Administer	Administering policy, projects, or programs that advance climate initiatives.	<i>Organizing a heat pump or electric vehicle program for Jefferson County residents.</i>
Fund	Accessing and collaborating on funds for countywide and targeted climate initiatives.	<i>Exploring and identifying funding sources to support a renewable energy, electric vehicle, or other climate-related incentive program for residents.</i>
Educate	Sharing information with the community about climate change and opportunities for action.	<i>Developing a website that provides an easy way for Jeffco residents and landowners to find guidance, resources, and answers to questions about caring for their land and promoting stewardship across the county.</i>
Advocate	Advancing climate action at a local, state, and federal level by advocating for climate-related policy change, legislation, and funding.	<i>Joining Colorado Communities for Climate Action (CC4A), through which local governments lobby the state for better climate laws.</i>

Structuring Implementation

Jefferson County will use the following structure for plan implementation.

- **Lead Coordinator:** Jefferson County's Sustainability Program Manager will be the lead coordinator for implementing this plan. This will include working with County staff to identify ways to integrate the plan's actions into existing operations and tracking and reporting progress. This will also include coordinating with community and local government partners, and the Sustainability Commission to leverage resources to achieve our goals.
- **Cross-Departmental County Climate Team:** Key contacts from various County departments will be identified and will meet on a monthly or quarterly basis to confirm priority actions for the following month, quarter, and year; assign roles; and report out on past work. These departments will provide timely, accurate data on both past performance and results as requested by the Lead Coordinator to ensure that tracking and reporting are effective.
- **Community Partners:** Building on the successful engagement of sector focus groups during this planning process, Jefferson County will continue to reach out to community partners to help move forward on solutions and actions.
- **Local Government Partners:** Representatives from cities and towns (and unincorporated areas to the extent possible) in Jefferson County will coordinate on a twice-a-year (at minimum) to identify ways to align climate action goals and solutions. This coordination will include sharing past and current climate action efforts and discussing which solutions their communities will focus on in the following year.
- **Sustainability Commission:** Mirroring the planning process, the Jefferson County Sustainability Commission will act as plan implementation advisors, ensuring that we continue to center our climate action goals in all we do.

Equity-Centered Solutions

Solutions-Based Approach

Over the next several years, efforts will focus on climate action that is most meaningful to our community. This plan is focused on climate solutions that represent the big steps to achieve our goals.

Twenty-three climate solutions were identified by examining priorities in Jefferson County plans, ideas from the sector focus groups, and input from the community. Solutions were further prioritized to identify which could be the greatest contributors toward our climate action goals as well as those that the County can significantly influence. While all 23 solutions are included in this plan, this evaluation process elevated 14 priority solutions that include specific actions steps for the first phase of implementation (through 2025). A plan update is recommended in 2026 to evaluate progress and determine additional action steps.

With each of these priority solutions, we can dive into ways to center equity during implementation.

Equitable Engagement

In addition to solution-specific equity considerations, Jefferson County is committed to equitable engagement during implementation. For Jefferson County this means building relationships and co-creating climate initiatives with community members and organizations that represent those who are disproportionately impacted by climate change -- including those with health issues, younger and older populations; Black, Indigenous, and People of Color (BIPOC); households with lower incomes; those with lower education levels; and non-English speaking households. Examples of equitable engagement considerations include language interpretation services, accessible spaces for meetings, childcare during meetings, reimbursement to community members for transportation and other costs associated with attending meetings, addressing technological barriers to attending virtual meetings (e.g., dial-in phone options, reserved library space), and designing a feedback loop back so the community understands how their thoughts and opinions were incorporated into the process.

ACHIEVING OUR GOALS: JEFFERSON COUNTY'S CLIMATE ACTION SOLUTIONS BY SECTOR

Our 23 solutions include three foundational solutions and 21 sector specific solutions, all centering equity. While all of the sectors contribute toward our goals, the **Buildings**, **Energy Supply**, and **Transportation** sectors will be the primary drivers in reaching our GHG emissions reduction goal; and the **Ecosystems**, **Food and Waste**, and **Water** sectors will be key in reaching our resiliency goal (Figure 7). The following sections outline each solution, their impact on our goals, and additional implementation considerations.



Figure 7: Jeffco's Climate Sectors

Navigating This Plan's Solutions

Our climate solutions are organized into six areas of opportunity. These sectors help organize the range of solutions and specific climate actions that will help us reach our goals. Figure 8 illustrates how each of these components relates to each other and will help you navigate the next six sections.



Figure 8: Climate Action Plan Components

To kickstart our journey toward achieving our goals, we provide implementation details in the table format below for each solution.

 Denotes priority strategy

🎯#: Example Solution

Solution Description

2035 GHG Emissions Reduction Potential

The resulting percent reduction of GHG emissions from Jefferson County's 2015 baseline from this solution.

0-3%

3-10%

10-20%

Resiliency Benefits

- *High: Significantly reduces environmental burdens and improves adaptive capacity for disproportionately impacted populations.*
- *Medium: Indirectly reduces environmental burdens and/or indirectly improves adaptive capacity for disproportionately impacted communities.*
- *Low: Does not reduce environmental burdens and may or may not improve adaptive capacity for disproportionately impacted populations*

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- *Specific actions in the near-term to launch implementation*

County Implementation Team

- *County departments/divisions or commissions that will participate in implementation*

Estimated Resource Needs (2023-2025)

- *High: Significant new resources*
- *Medium: Reallocation of resources and/or some new resources*
- *Low: Existing resources*

LOW

MED

HIGH

Available Resources

- *Funding and technical assistance available to support implementation of the solution*

Equity Considerations

- *Ways we can center equity*

Key Indicators

- *Metrics to show progress*



Foundational Solutions

Through the planning process, several climate action ideas were shared that applied to every sector and are foundational to both implementing other solutions successfully and achieving our goals. Through in-depth inquiry and analysis, three foundational solutions emerged:

- F-1: Increased Public Awareness about Climate Change **(priority)**
- F-2: Improved Emergency Preparedness and Response **(priority)**
- F-3: Exploration of Funding Sources

The tables on the following pages provide details for each solution.

Ways You Can Take Action

Residents

- Visit the [Sustainability Commission webpage](#) to find resources, tips, and ways to get involved in climate action!
- Sign up at [LookoutAlert.co](#) to receive emergency notifications.
- Develop a household emergency preparedness kit and plan – visit www.ready.gov/plan for checklists and ideas.

Businesses/Organizations

- Sign up at [LookoutAlert.co](#) to receive emergency notifications.
- Review the [Jefferson County Hazard Mitigation Plan](#) maps to understand if you are in a location that is vulnerable to flooding, fires, or other hazards; develop an emergency and continuity of operations plan for future hazards.
- Visit www.ready.gov/business to help your organization plan and prepare for future.

F-1: Increased Public Awareness about Climate Change

Collaborate on countywide outreach and education efforts to increase community awareness of climate change risks, impacts, and solutions, especially as they relate to health.

2035 GHG Emissions Reduction Potential

Not estimated

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Convene staff from Jefferson County cities and towns to discuss and align on climate goals and initiatives. (Convene)
- Inventory emerging innovative engagement techniques for all audiences, especially those with historically low participation rates. (Research/Strategize)
- Inventory climate-related educational efforts and resources for Jefferson County community members. Start with action steps in subsequent solutions that reference F-1. (Research/Strategize)
- Promote climate resources through County communication channels. Create a toolkit of outreach materials promoting available resources that can be shared with County partners. (Educate)
- Develop webpages on the County website that provide Jefferson County-specific climate resources. (Educate)

County Implementation Team

- Facilities Management – Sustainability
- Public Health
- Equity, Diversity, and Inclusion
- Others to be determined

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

- [Colorado Health Institute climate and health educational resources](#)
- [U.S. Environmental Protection Agency Climate Change and Human Health educational initiative](#)
- [Balancing Act municipal engagement tool](#)
- Anticipated from Colorado Energy Office electric vehicle marketing resources
- Anticipated from Inflation Reduction Act (see Appendix B: Anticipated Funding Opportunities)

Equity Considerations

- Work with groups that weren't involved in the planning process (e.g., Cheyenne and Arapaho tribes) to find ways to partner on climate action and share available resources.
- Conduct demographic study to customize messaging for different population groups.
- Provide educational resources in multiple languages and dedicate language justice staff to help residents navigate.
- Reinforce understanding and education about the fact that those who are most impacted by climate change are not necessarily those who are most responsible for creating the impacts; some groups bear disproportionate impacts and burdens.
- Conduct ongoing research on emerging innovative engagement techniques for diverse audiences and implement promising new approaches.
- Design engagement activities that enable the sharing of power during meetings and outline how community feedback will be incorporated into climate initiatives.

Key Indicators

- Community survey results (e.g., Yale Climate Opinion Maps)
- Community health assessment (e.g., community input related to climate impacts)



F-2: Improved Emergency Preparedness and Response

Amplify existing emergency preparedness plans and programs by ensuring climate impacts are incorporated, in order to increase all county residents' ability to mitigate, prepare for, and respond to disasters.

2035 GHG Emissions Reduction Potential

Not estimated

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Develop a climate-risk definition and prioritization model to inform where the County should invest mitigation resources. (Lead by Example)
- Encourage Jefferson County communities to update CWPPs according to the Colorado State Forest Service minimum standards and including the most recent climate risk data. (Convene)
- Work with A Little Help or similar organizations to set up a countywide network for checking in on older adults and other underserved populations during climate emergencies. (Convene)
- Implement action steps from the Jefferson County HMP, especially those that increase community resiliency to wildfires and flooding. (Administer)
- Begin designation/development of additional community spaces to provide shelter during climate emergencies (e.g., cooling centers for extreme heat). (Administer)
- Develop emergency preparedness information, including locations with community spaces that act as shelters in time of emergency, as part of F-1 outreach. (Educate)

County Implementation Team

- Facilities Management – Sustainability
- Public Health
- Others to be determined

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

- [Colorado Resiliency Office Resiliency Playbook and other related resources](#)
- Anticipated from Inflation Reduction Act and Infrastructure Investment and Jobs Act (see Appendix B: Anticipated Funding Opportunities)
- Anticipated support from U.S. Environmental Protection Agency Climate Adaptation Plan

Equity Considerations

- Provide emergency preparedness materials and trainings in multiple languages as well as dedicate language justice staff to help residents navigate.
- Prioritize investments in areas with disproportionately impacted populations (e.g., higher Climate Equity Scores), as well as those at greatest risk for wildfire as identified by CWPPs.

Key Indicators

- Percent of Jefferson County areas covered by updated Community Wildfire Protection Plans (CWPPs)

F-3: Exploration of Funding Sources

Explore the feasibility of various financial mechanisms that would provide funding for climate initiatives in Jefferson County.

2035 GHG Emissions Reduction Potential

Not estimated

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Explore financial mechanisms that have been implemented in other communities (e.g., dedicated grant-writing staff position, development fees in Lakewood, climate fees or taxes in Denver and Boulder, residential PACE, green revolving loan fund) to determine feasibility in Jefferson County. (Research/Strategize)

County Implementation Team

- Facilities Management – Sustainability

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

- Sustainability staff in communities with financial mechanisms (e.g., Lakewood, Denver, Boulder)
- Anticipated support from U.S. Environmental Protection Agency Climate Adaptation Plan

Equity Considerations

- Avoid placing additional cost burdens on disproportionately impacted populations who have been least responsible for historical GHG emissions.

Key Indicators

None identified



Buildings

Safe, secure shelter is a basic human need. We rely on buildings to keep us warm in the winter and cool in the summer; to protect us from rain, hail, and snow; and to provide air that is safe to breathe when outdoor air quality is at its worst. Advancing resiliency through the building sector means ensuring that all Jefferson County community members have access to healthy, safe, and affordable shelter at all times, especially during climate emergencies. This includes protection from events like flooding and wildfire, extreme heat and cold, and poor air quality.

Heading Home: Coalition to End Homelessness in Jefferson County

Heading Home is a collaboration of individuals, public service, and faith-based organizations from the community who are determined to end homelessness in Jefferson County. The vision of Heading Home is to create a systemic response in Jefferson County that prevents or ends homelessness whenever possible, and when it cannot be prevented, ensures it is a rare and brief experience. Learn more about Head Home at headinghomejeffco.com.

While providing safe shelter, the construction and operation of buildings are major contributors of GHG emissions. Buildings produce GHG emissions by using energy for heating, cooling, and power. Improving the energy efficiency of our buildings – by retrofitting existing buildings and requiring more efficient new construction – is one of the most significant opportunities to reduce building-related emissions. We can also reduce our emissions by opting for electricity-powered systems and appliances over natural gas and propane. Natural gas and propane used for heating, hot water, and cooking contributed nearly 1.5 million metric tons of carbon dioxide equivalent (MTCO_{2e}) in 2018 - 23% of our overall emissions - up from 21% in 2015. Electric-powered systems and appliances can use renewable energy as a source of power, which reduces emissions associated with heating, hot water, and cooking.

As Jefferson County continues to experience the impacts of climate change, the building sector will present major opportunities for both reducing GHG emissions and improving community resiliency, all while centering equity.

Ways You Can Take Action

Residents

- Schedule a consultation with [Xcel Energy](#), [CORE](#), or [United Power](#). If you are income-qualified, receive free energy efficiency upgrades through the Energy Resource Center [Weatherization Assistance Program](#).
- Follow energy saving tips from [Xcel Energy](#), [CORE](#), and [United Power](#).
- If you live in or near a forested area, review [The Home Ignition Zone: A guide to preparing your home for wildfire and creating defensible space](#).

Businesses/Organizations

- Schedule an energy assessment with [Xcel Energy](#), [CORE](#), or [United Power](#).
- Benchmark your building's energy performance using [ENERGY STAR® Portfolio Manager](#).

Buildings Sector Solutions

- B-1: Climate-Resilient and Low-Carbon New Construction (**priority**)
- B-2: Climate-Resilient, Efficient, and Healthy Homes (**priority**)
- B-3: Climate-Resilient, Efficient, and Healthy Commercial, Public, and Institutional Properties (**priority**)

The tables on the following pages provide details for each solution.



B-1: Climate-Resilient and Low-Carbon New Construction

Develop consistent new development policies among all jurisdictions in Jefferson County for reducing GHG emissions and increasing resiliency to climate risks such as flooding, wildfires, hail, and extreme heat.

2035 GHG Emissions Reduction Potential

0-3%

3-10%

10-20%

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Adopt a policy that requires all new County facilities to be all-electric. (Lead by Example)
- Research opportunities for building and development code improvements. (Research/Strategize)
- Organize a cohort of jurisdictions and special districts to align on climate-resilient code language. (Convene)
- Adopt 2021 IECC Building Code with local amendments as needed. (Administer)
- Integrate development code recommendations into CMP update and implementation. (Administer)
- Begin designing contractor and developer informational resource and training program. (Administer)

County Implementation Team

- Facilities Management – Sustainability
- Others to be determined

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

- [Colorado Energy Office I-Codes Technical Assistance](#)
- [Xcel Energy Colorado Energy Codes & Standards Program](#)
- Anticipated from Inflation Reduction Act (see Appendix B: Anticipated Funding Opportunities)

Equity Considerations

- Prioritize policies for buildings that house or provide services for disproportionately impacted communities (e.g., affordable housing, senior living facilities).
- Identify ways to mitigate cost impacts for entities housing or serving residents with lower incomes.

Key Indicators

- Percent of county covered by most recent International Energy Conservation Code (IECC) building codes
- Percent of county covered by building codes that include all-electric requirements
- Number and square footage of new structures built in hazard areas

B-2: Climate-Resilient, Efficient, and Healthy Homes

Update existing homes to 1) increase safety and comfort, considering climate risks such as flooding, wildfires, and extreme heat, 2) improve energy efficiency, and 3) transition away from fossil fuels to all-electric systems.

2035 GHG Emissions Reduction Potential



Resiliency Benefits



Preliminary Action Steps (2023-2025)

- Inventory existing home improvement programs available to Jefferson County residents and identify gaps related to climate hazards (e.g., poor ventilation, flooding damage, lack of cooling equipment, lack of fire-resistant building materials or defensible space). (Research/Strategize)
- Forecast the impact of anticipated climate impacts on existing programs (e.g., higher cooling cost impact for Low-income Energy Assistance Program (LEAP)). (Research/Strategize)
- Convene local government staff and regional partners to explore the development of energy performance disclosure policy at the point of home lease or sale. (Convene and Research/Strategize)
- Begin the development of new or expansion of existing home improvement programs to address gaps related to climate hazards identified in first step (e.g., defensible space, cooling system installations, reflective coating for roofs). (Administer and/or Fund)
- Organize group buys for heat pumps. (Administer)
- Include energy efficiency, electrification, and related improvement programs as part of F-1 outreach. (Educate)

County Implementation Team

- Facilities Management – Sustainability
- Others to be determined

Estimated Resource Needs (2023-2025)



Available Resources

- [Foothills Regional Housing Emergency Home Repair Program](#)
- [Colorado Low-income Energy Assistance Program \(LEAP\)](#)
- [Xcel Energy home rebates and services](#)
- [CORE Electric Cooperative energy efficiency services](#)
- [United Power energy efficiency services](#)
- [Colorado Energy Office Weatherization Assistance Program](#)
- [RentLab program for energy performance disclosure research support](#)
- Anticipated from Inflation Reduction Act and Infrastructure Investment and Jobs Act (see Appendix B: Anticipated Funding Opportunities)

Equity Considerations

- Prioritize resources for mobile homes, affordable housing properties, and households with lower incomes (e.g., financial resources to assist energy efficiency and electrification improvements).
- Work with property owners and managers to implement home improvements to reduce the burden on renters.

Key Indicators

- Participation in energy efficiency and electrification utility programs
- Number of permits for heat pump systems
- Participation in programs that incentivize installation of defensible space and fire-resistant materials (see HMP)
- Participation in Foothills Regional Housing emergency home repair programs



B-3: Climate-Resilient, Efficient, and Healthy Commercial, Public, and Institutional Properties

Support the update of existing commercial, public, and institutional properties to 1) increase safety and comfort considering climate risks such as flooding, wildfires, and extreme heat, 2) improve energy efficiency, and 3) transition away from fossil fuels to all-electric systems.

2035 GHG Emissions Reduction Potential

0-3%

3-10%

10-20%

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Identify potential County facilities as candidates for electrification retrofits and develop cost estimates and timelines for projects. (Lead by Example)
- Research feasibility of a commercial building energy benchmarking and disclosure program for buildings not covered by the statewide Benchmarking Program. (Research/Strategize)
- Exchange knowledge of energy efficiency and electrification with Jefferson County Public Schools to encourage projects. (Educate)
- Inventory large institutions and businesses and conduct outreach to encourage projects. (Educate)
- Include energy efficiency, electrification, and related improvement programs as part of F-1 outreach. (Educate)

County Implementation Team

- Facilities Management – Sustainability
- Others to be determined

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

- [Xcel Energy commercial programs and services](#)
- [CORE Electric Cooperative energy efficiency services](#)
- [United Power energy efficiency services](#)
- [Colorado C-PACE financing](#)
- [Building Performance Colorado Program](#)
- Anticipated from Inflation Reduction Act (see Appendix B: Anticipated Funding Opportunities)

Equity Considerations

- Prioritize resources for nonprofit organizations, and Minority/Women-owned Business Enterprises.

Key Indicators

- Participation in energy efficiency and electrification utility programs
- Number of critical facilities in hazard areas
- Number of projects financed by C-PACE
- Number of Energy Performance Contracts



Energy Supply

How we heat, cool, and power our homes and buildings is largely determined by our energy supply. Jefferson County community members get most of their electricity and natural gas from energy utilities, including Xcel Energy, United Power, and CORE Electric Cooperative. These large utilities use a mix of energy sources, including coal, natural gas, and renewable energy – like wind and solar. One of the biggest opportunities to reduce GHG emissions is by replacing fossil fuels with renewable energy. As major utilities replace coal, natural gas, and other GHG-emitting energy sources with renewable energy, the emissions associated with our energy supply has and will continue to decrease dramatically. Many utilities have set goals to reduce the GHG emissions of their energy mix. For example, Xcel Energy has a goal of providing energy to all customers with net-zero emissions by 2050.

Emissions from the electricity sector dropped from 46% of overall GHG emissions in 2015 to 36% in 2018. This downward trend is expected to continue as energy providers make progress toward their renewable energy and carbon-free goals.

Adopting renewable energy at the building scale is another way we can accelerate our movement away from fossil fuels and reduce grid electricity consumption. Further, pairing building-scale renewable energy with storage – for example, with batteries – increases our resiliency in the event of a power outage. Increasing the resiliency of our energy supply at the utility and building scale will become increasingly important in the face of climate change. Jefferson County is expected to experience more extreme heat and more extreme winter storms, underscoring the importance of a reliable energy supply.

Taking climate action in the energy supply sector means aggressively reducing GHG emissions associated with energy production and enhancing the resiliency of our energy systems through redundancy, building-scale renewable energy systems, and backup power.

Energy Supply Sector Solutions

- EN-1: Local Renewable Energy Generation and Storage (**priority**)
- EN-2: Utility-Scale Renewable Energy Generation and Storage (**priority**)
- EN-3: Resilient Grid Infrastructure
- EN-4: Biomass Power
- EN-5: Local Energy Workforce

The tables on the following pages provide details for each solution.

Ways You Can Take Action

Residents

- Install on-site renewable energy and storage through [Xcel Energy](#), [CORE](#), or [United Power](#).

Businesses/Organizations

- Install on-site renewable energy and storage through [Xcel Energy](#), [CORE](#), or [United Power](#).
- Learn about [Colorado C-PACE](#) financing renewable energy projects.



EN-1: Local Renewable Energy Generation and Storage

Support the development of on-site and community-scale renewable energy generation and battery storage.

2035 GHG Emissions Reduction Potential

0-3%

3-10%

10-20%

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Conduct a solar assessment for County facilities to identify and address needed improvements for existing installations and opportunities for new installations. (Lead by Example)
- Ensure that solar-related requirements are part of code research in B-1. (Research/Strategize)
- Identify publicly owned parcels that could be good candidates for community solar gardens. Consider this step as part of the CMP update. (Research/Strategize)
- Inventory properties with large rooftops or other spaces that may be suitable for on-site renewable energy; conduct outreach to encourage such projects (Research/Strategize and Educate)
- Collaborate with Solar United Neighbors or similar organizations to organize solar group buys. (Administer)
- Update permitting processes and fees to incentivize renewable and/or solar projects. (Administer)
- Include renewable energy incentive program(s) and contractor information as part of F-1 outreach. (Educate)

County Implementation Team

- Facilities Management – Sustainability
- Others to be determined

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

- [CORE Electric Cooperative renewable energy programs](#)
- [Xcel Energy renewable energy programs](#)
- [United Power renewable energy programs](#)
- [Colorado C-PACE financing](#)
- [Federal renewable energy tax credits](#)
- [Colorado renewable energy components tax exemption](#)
- Anticipated from Inflation Reduction Act (see Appendix B: Anticipated Funding Opportunities)

Equity Considerations

- Prioritize access to new community solar garden developments for households with lower incomes.
- Work with affordable housing developments to install solar systems that lower the cost of electricity.

Key Indicators

- Participation in on-site renewable energy utility programs
- Number and size of community solar gardens available to Jefferson County community members
- Number and size of on-site renewable energy generation projects at County facilities
- Number of permits for solar projects



EN-2: Utility-Scale Renewable Energy Generation and Storage

Support the expansion of utility-scale renewable energy generation and battery storage.

2035 GHG Emissions Reduction Potential

0-3%

3-10%

10-20%

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Participate in and partner with organizations that advocate at the Public Utilities Commission (e.g., Colorado Coalition for Climate Action (CC4CA)) for increased, equitable renewable energy options. (Advocate)

County Implementation Team

- Facilities Management – Sustainability

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

- None identified

Equity Considerations

- Advocate for new programs or expansion of existing programs to enable households with lower incomes to participate in utility renewable energy programs.

Key Indicators

- Utility energy mix

EN-3: Resilient Grid Infrastructure

Work with utilities on infrastructure improvements to increase grid flexibility and manage increased electrification.

2035 GHG Emissions Reduction Potential

Not estimated

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Work with utilities to identify areas that may need infrastructure improvements to support increased building and transportation electrification and to avoid power outages, especially during emergencies. (Research/Strategize)
- Include information about energy storage technology and peak demand strategies as part of F-1 outreach. (Educate)

County Implementation Team

- Facilities Management – Sustainability
- Others to be determined

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

- [Xcel Energy Battery Connect program](#)
- Anticipated from Infrastructure Investment and Jobs Act (see Appendix B: Anticipated Funding Opportunities)

Equity Considerations

- Advocate for grid infrastructure improvements in areas with disproportionately impacted populations (e.g., higher Climate Equity Scores).

Key Indicators

- Participation in utility battery programs
- Number of permits for battery installs/interconnects

EN-4: Biomass Power

Support the use of biomass feedstock to generate heat, electricity, and fuel for vehicles.

2035 GHG Emissions Reduction Potential

Not estimated

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Explore opportunities to use biomass product from forest thinning for fuel rather than mulch or localized biodegrading (non-use), including market forces and feasibility opportunities/challenges. (Research/Strategize)
- Work with operators of landfills, mines, and wastewater facilities to explore opportunities and challenges of producing and using bio-natural gas and liquid fuels, including researching existing biomass heating plants in Boulder County and Gilpin County. (Convene)

County Implementation Team

- Facilities Management – Sustainability

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

- [Colorado State Forest Service Wood to Energy Program](#)
- [NREL Biomass Research](#)

Equity Considerations

- Support workforce training in emerging biomass industries

Key Indicators

- Amount of energy derived from biomass that is sold or consumed in Jefferson County

EN-5: Local Energy Workforce

Support energy efficiency and renewable energy workforce development efforts through the National Renewable Energy Laboratory (NREL), educational institutions, and other regional partners.

2035 GHG Emissions Reduction Potential

Not estimated

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Convene regional partners (e.g., NREL, Colorado School of Mines, Red Rocks Community College) to identify opportunities to enhance countywide workforce development for energy efficiency and renewable energy industries. (Convene)
- Convene regional partners to highlight existing initiatives and businesses through tours and other gatherings. (Convene)
- Partner with and support the State on Global Energy Park (Glo Park) and NREL expansion. (Convene)
- Promote workforce development opportunities as part of F-1 outreach. (Educate)

County Implementation Team

- Facilities Management – Sustainability
- Others to be determined

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

- [NREL Workforce Development Affiliate Programs](#)
- [Regenerative Recovery Coalition support for expanding training opportunities through community colleges](#)
- [Solar United Neighbors Alerts for Installers](#)

Equity Considerations

- Prioritize support for workforce development efforts that support residents with lower incomes and communities of color.

Key Indicators

- Participation in energy efficiency and renewable energy workforce development programs



Transportation

Our ability to get from one place to another is central to our quality of life. For work travel alone, approximately 150,000 people commute into Jefferson County each day and 200,000 people commute out. Another 100,000 people commute within the county each day, totaling 900,000 trips. Most of those commuters drive to work in cars that run on gasoline or diesel fuel, emitting nearly 2.7 MTCO_{2e} into the atmosphere in 2018. The number of workers who drive alone to work is 75%, slightly higher than the state's average of 73% (U.S. Census Bureau, 2020). Not surprisingly, the fuel burned to transport people and to move goods around the County is the leading source of GHG emissions in Jefferson County. In 2018 it accounted for 40% of our overall emissions, up from 30% in 2015.

In addition to being our biggest opportunity to reduce county emissions, the transportation sector also presents huge opportunities to bolster climate resiliency. Vehicles that produce GHG emissions also produce air pollutants. Reducing vehicle emissions will improve air quality, which can improve the health outcomes of our community members. This can be especially impactful for community members who live near major transportation corridors.

Transportation plays an important role in our ability to respond to the impacts of climate change. If a community member doesn't own a car, are there options that allow them to get to work safely on extremely cold or hot days or for overnight shifts? If someone is physically unable to drive, how will they evacuate the area in an emergency? Taking climate action in the transportation sector means identifying solutions that reduce emissions, while ensuring we provide enough options to allow our community to safely and conveniently get around.

Ways You Can Take Action

Residential

- Walk, bike, carpool, or take transit instead of driving alone.
- Visit [Drive Electric Colorado](#) for information and incentives about switching to an electric car.

Businesses/Organizations

- Work with [Way to Go](#) to encourage employees to walk, bike, carpool, or take transit to work.
- Work with [Drive Clean Colorado](#) to access technical and financial support for fleet electrification.

Transportation Sector Solutions

- T-1: Electric Vehicle Adoption (**priority**)
- T-2: Multimodal Transportation Systems and Land Use Planning (**priority**)
- T-3: Efficient Transportation Systems

The tables on the following pages provide details for each solution.



T-1: Electric Vehicle Adoption

Support the transition of fleet, personal vehicles, and equipment to electric options.

2035 GHG Emissions Reduction Potential

0-3%

3-10%

10-20%

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Continue transitioning County fleet vehicles and infrastructure to electric options. (Lead by Example)
- Ensure that electric vehicle-related requirements are part of code research in B-1. (Research/Strategize)
- Clarify policies and regulations to enable greater electric micromobility (e.g., e-bikes, e-scooters) in upcoming Transportation Master Plan update. (Research/Strategize)
- Develop a countywide electric vehicle readiness and infrastructure roadmap. (Convene)
- Identify organizations with large fleets (e.g., Jeffco Public Schools bus fleet) and connect them to resources for fleet and equipment electrification. (Convene)
- Collaborate with regional agencies on expansion of funding for programs that support low-emissions landscaping and snow removal equipment. (Fund)
- Collaborate with auto dealerships, government agencies, and non-governmental agencies to increase awareness of EV resources and identify financial incentives for purchasing or leasing electric vehicles (e.g., group buys, reduced registration fees). (Educate, Administer)
- Include electric vehicle incentive programs as part of F-1 outreach. (Educate)

County Implementation Team

- Facilities Management – Sustainability
- Public Health
- Transportation & Engineering

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

- [Xcel Energy EV Commercial and Residential Programs](#)
- [Xcel Energy Partners in Energy Program for Electric Vehicle Planning](#)
- [Drive Clean Colorado Technical Assistance](#)
- [State of Colorado Tax Credits and Charging Station Grants](#)
- [Regional Air Quality Council of Colorado \(RAQC\) Lawn Mower Replacement Incentive Program](#)
- Anticipated from Inflation Reduction Act, Infrastructure Investment and Jobs Act, and State of Colorado Transportation Electrification Enterprises (see Appendix B: Anticipated Funding Opportunities)

Equity Considerations

- Prioritize investments (e.g., subsidized public charging stations) near schools, libraries, and multifamily housing.
- Prioritize investments (e.g., subsidized public charging stations, carshare programs) in areas with disproportionately impacted populations (e.g., higher Climate Equity Scores).

Key Indicators

- Percent of registered vehicles that are all-electric
- Percent of the County fleet that is all-electric
- Participation in electric vehicle utility programs
- Number of publicly available charging stations
- Number of permits for electric vehicle charging stations



T-2: Multimodal Transportation Systems and Land Use Planning

Support projects and programs that increase the region's bicycle, walking, carpool/vanpool, and transit trips; promote investment that supports connected urban centers and multimodal corridors.

2035 GHG Emissions Reduction Potential



Resiliency Benefits



Preliminary Action Steps (2023-2025)

- Re-examine Jefferson County employee trip reduction program that involves enabling employees to work from home, incentivizing employees to not drive to work alone, and collaborating with RTD to develop routes and programs that are feasible for public entities. (Lead by Example)
- Ensure that safe bicycle and pedestrian requirements, parking maximums, and transit considerations are part of code research in B-1. (Research/Strategize)
- As part of the Transportation Master Plan update, explore a financing mechanism to enhance local transit services that cross jurisdictional boundaries, explore opportunities to improve transit stops on public and private property, include implementation of complete streets policies, and emphasize sidewalk improvements for those with mobility impairments - in alignment with ADA policies. (Research/Strategize)
- As part of the CMP update and B-1 code research, recommend development codes changes that promote a greater mixture of land use, right-sized parking, and an increase in density in key locations to support a greater variety of travel options. (Research/Strategize)
- Seek funding for multimodal transportation to invest in sidewalks and protected bike lanes to encourage safe mode shift. (Fund)
- Include multimodal transportation programs and benefits as part of F-1 outreach. (Educate)

County Implementation Team

- Facilities Management – Sustainability
- Development & Transportation

Estimated Resource Needs (2023-2025)



Available Resources

- Anticipated from Inflation Reduction Act and Infrastructure Investment and Jobs Act (see Appendix B: Anticipated Funding Opportunities)

Equity Considerations

- Prioritize multimodal transportation improvements in areas with disproportionately impacted populations (e.g., higher Climate Equity Scores).

Key Indicators

- Annual vehicle-miles-traveled
- Bicycle counts
- Mode share use
- Public transportation ridership
- Number of shared mobility sites/programs

T-3: Efficient Traffic Systems

Support projects and programs that improve the safety and efficiency of traffic flow and infrastructure.

2035 GHG Emissions Reduction Potential

Not estimated

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Work with Xcel Energy and other partners to convert streetlights to LED. (Convene)
- Continue coordinating traffic signals on major roadways to reduce congestion and improve air quality. (Administer)

County Implementation Team

- Facilities Management – Sustainability
- Transportation & Engineering

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

- [Denver Regional Council of Governments Traffic Signal System Improvement Program](#)

Equity Considerations

None identified

Key Indicators

- Energy use of countywide streetlights



Ecosystems

Healthy ecosystems are not only more resilient to the impacts of climate change, but also play a major role in our ability to withstand the impacts of climate change. Resilient ecosystems are more easily able to mitigate wildfire risk, reduce flood risk, improve water quality, improve air quality, and even cool the environment. Trees provide shade that help keep the ground and air several degrees cooler. All plants release water vapor into the air, which cools the surrounding area at ground level. This cooling effect may be something you've experienced directly, but how can ecosystems help with wildfires, water quality, and flooding?

High-intensity fires are common where there is an abundance of highly combustible fuel which help fires rapidly grow. Reducing the number of dead trees increases forest health and reduces the likelihood of high-intensity wildfires. Reducing the number of these wildfires also helps prevent water quality issues by keeping smoke, ash, and debris from washing into our water systems. Healthy forests, riverine systems, and wetlands not only improve water quality but also reduce flooding by slowing the flow of water, allowing it to be absorbed by plants and soil and to infiltrate back into the ground where it recharges groundwater systems. Healthy ecosystems also play a role in balancing out GHG emissions by removing carbon dioxide from of the atmosphere and storing it in plants and soil.

Taking climate action in the ecosystem sector will mean identifying solutions that maintain healthy ecosystems, provide essential resiliency benefits, and supplemental carbon sequestration benefits.

Ways You Can Take Action

Residential

- Work with your city/town forester to plant trees through [Trees Across Colorado](#).
- Take a [Native Plant Master class](#) from the Jefferson County CSU Extension.

Businesses/Organizations

- Work with [Trees Across Colorado](#) or a local nursery to plant trees in your community.

Ecosystems Sector Solutions

- EC-1: Preserve the Natural Environment (**priority**)
- EC-2: Create Urban Systems that Mimic the Natural Environment (**priority**)

The tables on the following pages provide details for each solution.

EC-1: Preserve the Natural Environment

Improve the resiliency of ecosystems in Jefferson County to better withstand climate change impacts and to provide key ecosystem services to climate change impacts – including flood and wildfire mitigation and water quality management – by preserving, protecting, connecting, and enhancing existing open space, forests, and natural areas.

2035 GHG Emissions Reduction Potential

Not estimated

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Identify and prioritize opportunities to implement draft 2023 Colorado Water Plan “Thriving Watershed” and “Resilient Planning” partner actions, including streamflow enhancement, invasive species removal, forest health improvements, and reconnecting floodplains. (Research/Strategize)
- Work with Colorado State University (CSU) Extension to research opportunities to improve soil health in degraded or fire-impacted areas of the watershed (Research/Strategize).
- Support and expand the SLASH program to clear additional wildfire fuel. (Research/Strategize)
- Include requirements for developers to factor in their impact to wildlife as part of the development process as part of CMP update. (Research/Strategize)
- Coordinate with Mile High Flood District and local watershed foundations (e.g., Clear Creek Watershed Foundation, Bear Creek Watershed Association, and Coalition for the Upper South Platte) to implement basin-wide green stormwater management and watershed improvement projects that protect watershed health and improve water quality. (Convene)
- Implement the 2022 Forest Health Management Plan. (Administer)
- Include education about the value of ecosystem services and the role of biodiversity in measuring ecosystem health, as part of F-1 outreach. (Educate)
- Include education about the impact of climate change on Jefferson County’s ecosystems, as part of F-1 outreach. (Educate)
- Encourage residents to participate in the State’s [River Watch](#) volunteer stream monitoring program for streams within and upstream from the county. (Educate)

County Implementation Team

- Facilities Management – Sustainability
- Public Health
- Others to be determined

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

- [Wild and Scenic Rivers Fund](#)
- [Flood and Drought Response Fund](#)
- [CWCB Funding](#)
- [Mountain Area Land Trust \(MALT\)](#)
- Anticipated from Inflation Reduction Act (see Appendix B: Anticipated Funding Opportunities)

Equity Considerations

- Prioritize watershed restoration, flood mitigation, and fire mitigation projects that benefit areas with disproportionately impacted populations (e.g., higher Climate Equity Scores).

Key Indicators

- Acres of open space, natural areas, and state forest managed in Jefferson County
- Amount of wildfire fuel cleared through the Sustainable Lands and Safer Homes (SLASH) program
- Miles/acres of restoration projects completed by Jefferson County Open Space (JCOS)
- Natural resource inventories by JCOS



EC-2: Create Urban Systems that Mimic the Natural Environment

Minimize the heat, flooding, pollution, and biodiversity impacts of development in both urban and rural settings by mimicking natural processes such as stormwater treatment and tree canopy coverage.

2035 GHG Emissions Reduction Potential

Not estimated

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Adopt a policy requiring green stormwater infrastructure (e.g., permeable pavement, bioswales, bioretention ponds) in all appropriate County infrastructure projects, including Facilities and Road, and Bridge projects. Share this approach with local governments in Jefferson County. (Lead by Example).
- Use alternative options for snowmelt material that doesn't damage ecosystem health, while also avoiding the use of energy to melt snow. Then share this approach with other Jefferson County local governments. (Lead by Example)
- Identify areas in the county that could most benefit from tree plantings (e.g., areas with high urban heat, along transportation corridors, along streams) then work with local governments and other large property owners to encourage tree plantings in these areas to reduce temperatures and improve air and water quality. (Convene)
- Work with The Arbor Day Foundation and other organizations to explore opportunities to offer subsidized trees to residents through the Energy-Saving Trees or Community Canopy foundation program. (Administer)
- Partner with CSU Extension and local nurseries to develop educational events in conjunction with event-specific discounts for native plants and seeds. (Administer)
- Review and update development code to align with ecosystem processes (e.g., restrict turf, require native and low-water plants, protect existing trees, require low-impact development and green stormwater infrastructure). (Administer)

County Implementation Team

- Facilities Management – Sustainability
- Development & Transportation
- Others to be determined

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

- The [Arbor Day Foundation](#)
- [Tree Equity Score](#) mapping tool
- [CWCB Funding](#)
- Anticipated from Inflation Reduction Act (see Appendix B: Anticipated Funding Opportunities)

Equity Considerations

- Prioritize tree planting and other ecosystem improvement projects in areas with disproportionately impacted populations (e.g., higher Climate Equity Scores) (or leveraging similar tools like [Tree Equity Score](#)).
- Work with local communities to build understanding of the benefits of green infrastructure, and to confirm support for green infrastructure projects.
- Ensure green infrastructure maintenance plans are in place and enforced.
- Identify opportunities to support local economies by connecting green infrastructure installation and maintenance to workforce development programs.

Key Indicators

- Tree canopy coverage
- Permits for green infrastructure projects



Food and Waste

How we produce, process, and move food contributes a relatively small proportion to our direct GHG emissions but plays a big part in our community resiliency. Supporting the local production can reduce GHG emissions associated with this sector and support our local economy. However, as we continue to experience more frequent and severe climate disasters, we need to work with our farmers to encourage climate-smart practices that are resilient to these harsh impacts as well as explore ways to reduce GHG emissions and rebuild our soil during the farming process. Additionally, we must ensure that our community has access to healthy, culturally relevant foods during emergencies by developing a strong local food supply chain and emergency food distribution system.

Waste is another relatively small portion of Jefferson County's direct GHG emissions, producing emissions in the form of methane released as landfills slowly decompose. While the direct emissions impact is small, the global impact of our waste practices can be much larger, as it takes a great deal of energy, and therefore emissions, to produce and ship things we eventually dispose of. The best way to reduce local and global waste emissions is to reduce what we use and what we throw out, and to divert waste from the landfill through recycling and composting.

Ways You Can Take Action

Residential

- Support local food by purchasing from a [Community-Supported Agriculture farm share](#).
- Get involved with the [Jeffco Food Policy Council](#).
- Look for opportunities to reduce, reuse, or share products such as joining a local Buy Nothing Project group or shopping at thrift stores.

Businesses/Organizations

- Adopt a purchasing policy that prioritizes using local, culturally-relevant, healthy foods.
- Start a recycling and composting program at your building.

Food and Waste Sector Solutions

- FW-1: Access to Healthy, Locally Produced and Culturally Relevant Foods (**priority**)
- FW-2: Climate-Smart Agriculture
- FW-3: Waste Diversion
- FW-4: Low Carbon Materials and Food
- FW-5: Landfill Gas Capture

The tables on the following pages provide details for each solution.



FW-1: Access to Healthy, Locally Produced and Culturally Relevant Foods

Support the expansion and improvement of programs that facilitate the production and distribution of healthy, local, and culturally relevant food options and insulate Jefferson County's food supply chain from climate-related disruptions.

2035 GHG Emissions Reduction Potential

Not estimated

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Ensure that food-related requirements identified in the Jefferson County Food Policy Council report are part of code research in B-1. (Research/Strategize)
- Begin development of a county-wide food system assessment to inform local food investments, including an inventory of large, refrigerated storage spaces and shared agreements for emergency access to ensure large volumes of food do not go to waste in the event of power disruption, fire, or flood. (Research/Strategize)
- Work with food retailers to expand the availability of affordable mobile food programs (e.g., mobile markets, meal, and grocery delivery), including the expansion of incentives for households with lower incomes. (Convene)
- Identify and help coordinate opportunities to co-locate food assistance programs with other public assistance programs, especially in an emergency. (Convene)
- Include food resources as part of F-1 outreach, in coordination with Jefferson County Food Policy Council. (Educate)
- Promote awareness of the Colorado Proud local food labeling program as part of F-1 outreach, encouraging retailers to increase labeled products and consumers to increase purchases of those products. (Educate)

County Implementation Team

- Facilities Management – Sustainability
- Public Health

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

- [Colorado Department of Human Services Food Pantry Assistance Grant Program](#)
- [Colorado Health Foundation Colorado Fresh Food Financing Fund](#)
- [FEWSION Database to map supply chain](#)
- [Colorado Proud labeling](#)

Equity Considerations

- Prioritize programs and investment (e.g., new community gardens) in areas with disproportionately impacted populations (e.g., higher Climate Equity Scores).
- Incorporate cultural considerations when selecting food options.

Key Indicators

- Distribution and capacity of food assistance programs
- Number of local food assets (e.g., community gardens)

FW-2: Climate-Smart Agriculture

Support farming practices like resource efficiency, integrated pest management, reduced tilling, regeneration, composting, and other practices that support carbon sequestration, water conservation, and increase resiliency.

2035 GHG Emissions Reduction Potential

Not estimated

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Inventory agricultural producers and conservation easements in the county, including any County-owned properties that are managed/leased for agriculture and collect feedback on ways the County can provide direct, consistent support for those who practice climate smart agriculture. (Research/Strategize)
- Explore partnerships and other opportunities to develop alternative farming practices like agri-voltaic projects (e.g., Jack's Solar Garden) and hydroponic vertical farming. (Research/Strategize)
- Support state initiatives related to climate smart agriculture and statewide protections for agriculture workers. (Advocate)
- Promote climate smart practices to agricultural producers. (Educate)

County Implementation Team

- Facilities Management – Sustainability
- Public Health

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

- [U.S. Department of Agriculture programs for climate-smart agriculture](#)
- [Colorado Department of Agriculture STAR program](#)
- [Colorado State University Climate Smart Agriculture Program](#)

Equity Considerations

- Work with Black, Indigenous, and People of Color (BIPOC) farmers to learn more about food and land practices and what type(s) of support would be most beneficial.
- Prioritize resources for BIPOC farmers and farmers with lower incomes.

Key Indicators

None identified

FW-3: Waste Diversion

Support projects and programs that increase reuse, recycling, composting, and deconstruction.

2035 GHG Emissions Reduction Potential

Not estimated

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Ensure that recycling is available at all County facilities and pilot compost collection services at some facilities. (Lead by Example)
- Ensure that equal space for trash, recycling, and composting requirements, as well as requirements for construction and demolition recycling, are part of code research in B-1. (Research/Strategize)
- Collaborate with regional partners (e.g., Jeffco Public Schools) on the development of regional recycling and composting infrastructure. (Convene)
- Include waste diversion education and resources, including reuse and repair opportunities and opportunities resulting from Colorado's extended producer responsibility (EPR) bill as part of F-1 outreach. (Educate)

County Implementation Team

- Facilities Management – Sustainability
- Public Health
- Others to be determined

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

- [Colorado Department of Public Health and Environment Front Range Waste Diversion Program](#)
- [Recycle Colorado grant listings](#)

Equity Considerations

- Focus on waste diversion activities that are accessible to all regardless of their housing type, waste provider, or income (e.g., community recycling drop-off days, neighborhood composting sites, repair cafes).
- Avoid or minimize locating waste handling facilities of any type in neighborhoods with disproportionately impacted populations (e.g., higher Climate Equity Scores) and seek relocation of existing facilities outside of such neighborhoods.

Key Indicators

- Number and use of recycling and composting facilities in Jefferson County
- Front Range waste diversion rate

FW-4: Low Carbon Materials and Food

Promote the use of materials and foods with a lower carbon (GHG emissions) footprint.

2035 GHG Emissions Reduction Potential

Not estimated

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Develop a purchasing policy or guide for County departments to prioritize products with low carbon attributes or related certifications. (Lead by Example)
- Include education on low carbon materials and food (e.g., vegetarian diets, products made from biomass, locally produced and distributed products) as part of F-1 outreach. (Educate)

County Implementation Team

- Facilities Management – Sustainability
- Public Health
- Others to be determined

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

None identified

Equity Considerations

- Incorporate cultural considerations when selecting food options.
- Ensure that cost is also considered when selecting or promoting low carbon materials.

Key Indicators

None identified

FW-5: Landfill Gas Capture

Support the capture and use of landfill gas instead of venting or flaring.

2035 GHG Emissions Reduction Potential

Not estimated

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Inventory all active and closed landfills in Jefferson County to determine if they are capturing and using landfill gas. (Research/Strategize)
- Share information and resources about landfill gas capture with operators of facilities that are not currently capturing their landfill gas. (Educate)

County Implementation Team

- Facilities Management – Sustainability

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

None identified

Equity Considerations

None identified

Key Indicators

- Number of landfills capturing and using landfill gas
- Volume of gas captured or used



Water

Water is a foundational need for human survival and rests at the epicenter of Colorado's economy. One of the biggest resiliency challenges our county faces is the impact of the climate crisis – including extended and more frequent droughts and wildfires -- on water availability and quality. These risks have the potential to affect every facet of our lives and our economy, from tourism to agriculture.

The [2022 South Platte Basin Implementation Plan](#) underscores the dire threat to our water future. Under multiple possible climate, economy, and population scenarios, the South Platte Basin – an expansive basin that includes the entire Denver metro area and all of northeast Colorado – will not have enough water supply to meet demands. The plan is clear: addressing this gap will require water providers to identify additional supplies while minimizing an increase in water demand. In addition to water scarcity, a hotter and drier climate is likely to worsen water quality, which will increase water treatment needs and could impact the equity of water delivery.

The treatment, delivery, and heating of water also uses energy. Reducing our overall water use will reduce energy use and therefore GHG emissions. There are numerous opportunities to reduce water use across the county, including residential and commercial indoor water use, water use for industrial and manufacturing processes, and outdoor water use to maintain landscaping. Improving our water use efficiency and conservation practices also make our county more resilient to drought conditions.

Jefferson County is not a water provider and does not control water supply planning, water efficiency planning, or the delivery of water to community members. There are over 100 distinct water providers in Jefferson County and over 28,000 wells. This patchwork of water systems and providers makes it challenging to take the unified action necessary to bolster the resiliency of our water system and reduce GHG emissions associated with water use.

It is imperative that Jefferson County catalyzes regional water action through research and education, advocacy, and leadership by example. There may also be opportunities for Jefferson County to serve as a regional program administrator, helping provide uniform opportunities to reduce water use across the county.

Water Sector Solutions

- W-1: Water Conservation (**priority**)
- W-2: Diverse and Resilient Water Supply (**priority**)

The tables on the following pages provide details for each solution.

Ways You Can Take Action

Residential

- Switch to native, low-water landscaping through Resource Central's [Garden in a Box](#).
- Choose [WaterSense](#) labeled toilets, showerheads, and other water-saving products.
- Learn about rainwater collection systems through [Colorado Stormwater Center](#).

Businesses/Organizations

- Switch to native, low-water landscaping.
- Find water conservation best management practices/tracking tools at [WaterSense](#).



W-1: Water Conservation

Develop and expand programs and policies that reduce water use.

2035 GHG Emissions Reduction Potential

Not estimated

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Complete a water audit of all major County facilities and use audit recommendations to prioritize and implement water efficiency projects. (Lead by Example)
- Replace turf on Jeffco properties, including right-of-way, with low-water landscaping. (Lead by Example)
- Implement draft 2023 Colorado Water Plan partner actions, including implementing water-saving technology, creating low water landscapes, and conservation education. (Research/Strategize)
- Implement relevant water demand reduction strategies identified in the South Platte Basin Implementation Plan, including adopting aggressive watering restrictions during water shortages and water-conscious landscaping ordinances (as part of code research in B-1). (Research/Strategize)
- Incorporate water efficiency [best practices](#) into the next CMP update. (Research/Strategize)
- Includes requirements for integrating water efficiency and development as part of code research in B-1 (e.g., require efficient indoor fixtures, low-water and native landscapes, efficient irrigation systems), and convene a regional code cohort to support the adoption of best practices in Jefferson County communities. (Research/Strategize and Convene)
- Encourage water districts to promote the integration of land use planning into long-range water plans (e.g., promote conservation-oriented system development charges and pricing structures). (Convene)
- Convene large property owners (e.g., Jeffco Public Schools, Parks and Recreation Districts and Departments) to promote replacement of turf with native, low-water landscaping. (Convene)
- Support the development of a countywide turf replacement program in accordance with state and federal funding requirements. (Administer)
- Conduct targeted outreach to water-intensive users to encourage water reduction, in coordination with outreach in F-1. (Educate)

County Implementation Team

- Facilities Management – Sustainability
- Development & Transportation
- Others to be determined

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

- [CWCB Funding](#)
- [WaterSMART Water Grants](#)
- [WaterNow Project Accelerator Program](#)
- Best Practice Guidebooks
 - [Incorporating Water into Comprehensive Planning](#)
 - [Integrating Water Efficiency into Land Use Planning in the Interior West](#)
 - [Best Practices for Water Conservation and Demand Management Through Land Use Planning](#)
- Anticipated [State Turf Replacement Funding](#) (July 2023)
- Anticipated from Inflation Reduction Act (see Appendix B: Anticipated Funding Opportunities)

Equity Considerations

- Reduce barriers to the adoption of water saving technologies in low-income households to help reduce water costs.

Key Indicators

- Number of water providers that incorporate land use planning into long-range water planning
- Participation in future turf conversion program

W-2: Diverse and Resilient Water Supply

Engage in regional water issues and support water supply projects that impact Jefferson County and help close the gap between projected demand and supply.

2035 GHG Emissions Reduction Potential

Not estimated

Resiliency Benefits

LOW

MED

HIGH

Preliminary Action Steps (2023-2025)

- Research opportunities and advocate for statewide policy to allow for alternative uses for recycled wastewater in new and existing developments. (Research/Strategize and Advocate)
- Participate in the South Platte Basin and Metro Basin roundtable to support regional coordination of water supply and conservation projects by identifying projects for collaboration, coordinating with relevant County departments, and supporting implementation (Convene)
- Support the South Platte Basin Implementation Plan Identified Projects and Processes (IPPs) within Jefferson County (e.g., streamlined permitting for water supply projects that cross unincorporated county boundaries). (Advocate)
- Work with developers using ground water to ensure that adequate water supply is available (using County-developed water availability analysis tool). (Administer)

County Implementation Team

- Facilities Management – Sustainability
- Development & Transportation
- Public Health
- Others to be determined

Estimated Resource Needs (2023-2025)

LOW

MED

HIGH

Available Resources

- [CWCB Grants](#)
 - CWCB Water Supply Reserve Fund Grants
 - Federal Technical Assistance Grants
 - CWCB Colorado Water Plan Grants
 - CWCB Non-Reimbursable Project Investment Grants
 - CWCB Water Project Loan Program
- [CWCB Grant Search](#)
- [WaterSMART Water Grants](#)
- [WaterNow Project Accelerator](#)

Equity Considerations

- Prioritize the equitable allocation of water (e.g., exploring State funding for water bill payment assistance for income qualified households).
- Provide free private well water testing for low-income residents
- Explore opportunities to provide water-filling stations accessible to residents whose water quality and/or quantity does not meet defined water quality and/or quantity standards.

Key Indicators

- Number of Identified Projects and Processes (IPPs) implemented in Jefferson County
- Groundwater levels

Summary of Solutions

Table 5 and Figure 9 summarize this plan's solutions by GHG emissions reduction and resiliency benefits.

Table 5: Solutions by Sector, Priority, and Impact

Sector	Solution	2035 GHG Emissions Reduction Potential	Resiliency Benefits
Foundational	🎯 F-1: Increased Public Awareness about Climate Change	Not estimated	Medium-High
	🎯 F-2: Improved Emergency Preparedness and Response	Not estimated	High
	F-3: Exploration of Funding Sources	Not estimated	Low
Buildings 	🎯 B-1: Climate-Resilient and Low-Carbon New Construction	Low (0-3%)	High
	🎯 B-2: Climate-Resilient, Efficient, and Healthy Homes	Medium (3%-10%)	High
	🎯 B-3: Climate-Resilient, Efficient, and Healthy Commercial, Public, and Institutional Properties	Medium (3%-10%)	High
Energy Supply 	🎯 EN-1: Local Renewable Energy Generation and Storage	Medium (3%-10%)	Medium
	🎯 EN-2: Utility-Scale Renewable Energy Generation and Storage	High (10-20%)	Medium
	EN-3: Resilient Grid Infrastructure	Not estimated	Medium
	EN-4: Biomass Power	Not estimated	Low-Medium
	EN-5: Local Energy Workforce	Not estimated	Low-Medium
Transportation 	🎯 T-1: Electric Vehicle Adoption	High (10-20%)	Medium
	🎯 T-2: Multimodal Transportation Systems and Land Use Planning	Medium (3%-10%)	Medium-High
	T-3: Efficient Transportation Systems	Not estimated	Low
Ecosystems 	🎯 EC-1: Preserve the Natural Environment	Not estimated	High
	🎯 EC-2: Create Urban Systems that Mimic the Natural Environment	Not estimated	High
Food and Waste 	🎯 FW-1: Access to Healthy, Locally Produced and Culturally Relevant Foods	Not estimated	High
	FW-2: Climate-Smart Agriculture	Not estimated	Medium
	FW-3: Waste Diversion	Not estimated	Medium
	FW-4: Low Carbon Materials and Food	Not estimated	Low
	FW-5: Landfill Gas Capture	Not estimated	Low-Medium
Water 	🎯 W-1: Water Conservation	Not estimated	Medium
	🎯 W-2: Diverse and Resilient Water Supply	Not estimated	High

🎯 Denotes priority strategy

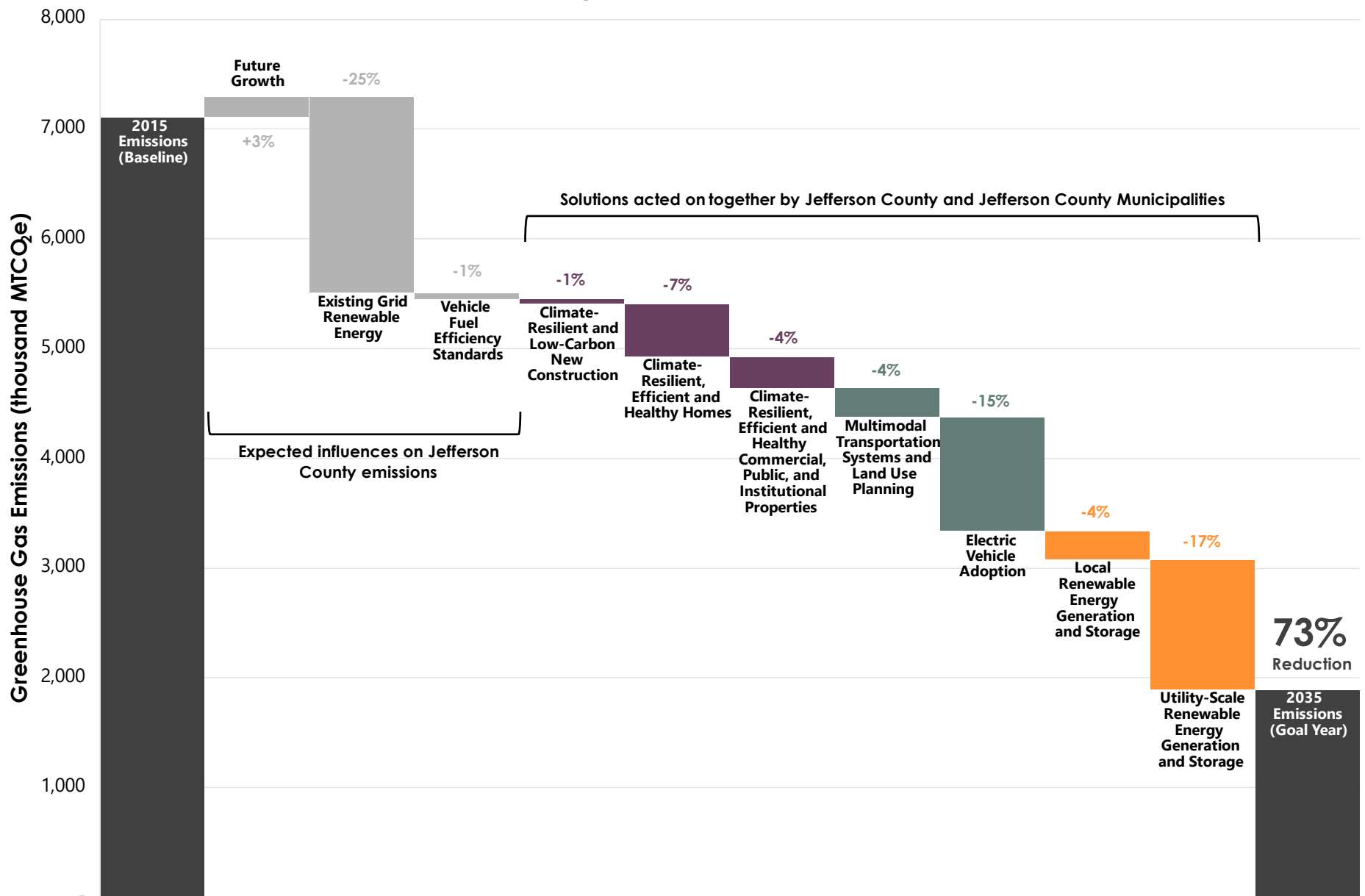


Figure 9: The estimated emissions reduction potential of the plan's climate solutions in 2035. The grey boxes represent external factors beyond Jefferson County's control. The purple, green, and orange boxes represent the estimated maximum emissions reduction contribution of each solution toward the 2035 goal.

APPENDICES

- [Appendix A: Glossary](#)
- [Appendix B: Anticipated Funding Opportunities](#)
- [Appendix C: Works Cited](#)
- [Appendix D: Community Engagement Summary](#)

DRAFT

Appendix A: Glossary

Key Term	Definition
Biomass Feedstock	Materials from plants and animals (e.g., forestry residues, algae, food waste) that are available on a renewable basis and are used either directly as a fuel or converted to another form or energy product.
Carbon Dioxide	A naturally occurring gas and a by-product of burning fossil fuels and biomass, as well as from land-use changes and other industrial processes. It is the principal human-caused greenhouse gas that affects the Earth's radiative balance. It is the reference gas against which other greenhouse gases are measured.
Carshare	Car rental program where people rent cars for short periods of time, often by the minute or hour.
Climate Change	Long-lasting changes in average weather conditions encompassing both increases and decreases in temperature as well as shifts in precipitation, severe weather events, and other features of the climate system.
Clean Energy	Energy that comes from zero emission sources that do not pollute the atmosphere when used.
Community Solar	Local solar facilities shared by multiple community subscribers who receive credit on their electricity bills for their share of the power produced.
Greenhouse Gas (GHG)	Gases in the atmosphere that absorb and emit radiation and significantly contribute to climate change. The primary greenhouse gases in the Earth's atmosphere are water vapor, carbon dioxide, methane, nitrous oxide, and ozone.
Climate Action	Activities to reduce greenhouse gas emissions and strengthen resiliency and adaptation to climate-induced impacts.
Climate Adaptation	Actions that help communities cope with the effects of rapid climate change.
Climate Equity	Climate action that is inclusive of environmental justice and racial and economic equity. Equitable climate actions reduce disparate harms from the effects of climate change by prioritizing communities that are disproportionately impacted. Equitable climate actions also avoid placing unfair burdens on communities that have contributed the least to the greenhouse gas emissions that cause rapid climate change.
Climate Migration	The movement of a person or groups of persons who, predominantly for reasons of sudden or progressive change in the environment due to climate change, are obliged to leave their habitual place of residence, or choose to do so, either temporarily or permanently, within a state or across an international border.
Climate Mitigation	Human intervention to reduce the human impact on the climate system.
Climate Resiliency	The ability and extent to which systems can prepare and plan for, absorb, respond to, recover from, and adapt to the effects of climate-related shocks and chronic stressors.
Climate Risk	Potential adverse consequences for humans and social-ecological systems resulting from the interaction of climate-related hazards with the vulnerabilities of the societies and systems exposed.
Climate Vulnerability	The potential to be adversely affected by rapid climate change due to geographic, social, economic, or other conditions. Reference to "vulnerable" populations is in the context of acknowledging system deficiencies rather than judgement of individuals or their neighborhoods.
Environmental Justice	The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to environmental policies.
Metric Tons Carbon Dioxide Equivalent (MTCO_{2e})	A unit of measure for greenhouse gas emissions. The unit "CO _{2e} " represents an amount of a greenhouse gas whose atmospheric impact has been standardized to that of one-unit mass of carbon dioxide (CO ₂), based on the global warming potential (GWP) of the gas.

On-Site Solar	Roof-top and ground-mounted solar systems installed at the property of the entity that owns or leases the system.
Race-Based Covenants	Discriminatory statements in property deeds that prevented people who were not white from buying or occupying land.
Redlining	Discriminatory practice of denying services (typically financial) to residents of certain areas based on their race or ethnicity.
Renewable Energy Credits	When 1 MWh of renewable energy is created, 1 renewable energy credit (REC) is created. RECs are considered currency used to measure renewable energy produced and used to meet renewable energy requirements or goals. RECs represent the environmental benefits associated with energy produced from a renewable source, such as wind or solar.
Retrocommissioning	Retrocommissioning is the process of adjusting building systems to ensure that a building is running at optimal performance. It addresses inefficiencies and issues that have developed throughout a building's life (e.g., aging equipment).

Appendix B: Anticipated Funding Opportunities

Our federal and state governments have been offering funding to counties for many years for some of the activities this plan includes in proposed solutions. Two recent federal programs, the Infrastructure Investment and Jobs Act of 2021 and the Inflation Reduction Act of 2022, promise a large infusion of additional funds, both for the same activities and for new activities. The following table shows federal and state programs that might offer funds the County could tap for implementation of this plan. Except in the case of formula grant programs, all of these programs are competitive, meaning that the County can submit applications but there is no assurance of receiving funding. In addition, federal funding will be subject to Justice40, an executive order signed by President Joe Biden, that requires that at least forty percent of the benefit of any funding granted under these acts must be delivered to disadvantaged communities.

Resources	Related Sector						
	Foundational	Buildings	Energy Supply	Transportation	Ecosystems	Food and Waste	Water
Inflation Reduction Act (IRA)							
Assistance for Latest and Zero Building Energy Code Adoption		X	X				
Climate Pollution Reduction Grants	X						
Clean Heavy-Duty Vehicles Grants and Rebates				X			
Energy Efficient Commercial Buildings Deduction (179D)		X					
Environmental and Climate Justice Block Grants (Inflation Reduction Act)	X	X	X	X	X		
EV Tax Credit				X			
Greenhouse Gas Reduction Fund	X	X	X	X			
High-Efficiency Electric Home Rebate Program (HEERA)		X					
Home Energy Performance Based, Whole-House Rebate (HOMES) Program		X					

Resources	Related Sector						
	Foundational	Buildings	Energy Supply	Transportation	Ecosystems	Food and Waste	Water
Improving Energy Efficiency, Water Efficiency, or Resilience of Affordable Housing	X	X	X				X
Low Emissions Electricity Outreach Program	X		X				
Neighborhood Access and Equity Grant Program				X			
State and Private Forestry Conservation Programs					X		
Infrastructure Investment and Jobs Act (IIJA)							
Reduce Threats to Pedestrians				X			
Building Resilient Communities and Infrastructure Program			X				
Safeguarding Tomorrow Through Ongoing Risk Mitigation Program	X						
Weatherization Assistance Program		X					
Charging and Fueling Infrastructure Grant Program				X			
Carbon Reduction Formula Program				X			
Healthy Streets Program				X			
Transit Formula Grant Programs				X			
State of Colorado Transportation Electrification Enterprises							
Community Access Enterprise: Community-Accelerated Mobility Project (CAMP) funding for mobility solutions such as electric carshare, vanpool, eBike share, community charging infrastructure				X			

Resources	Related Sector						
	Foundational	Buildings	Energy Supply	Transportation	Ecosystems	Food and Waste	Water
Community Access Enterprise: Vehicle Investment for Sustainable Transportation Access (VISTA) funding to replace high-emitting vehicles with low-emissions options such as battery electric vehicles, transit, electric alternative mobility, and others				X			
Community Access Enterprise: Service Panel Upgrade + Residential Resources (SPURR) support for residences to upgrade electrical services and install infrastructure to charge at home				X			
Community Access Enterprise: Fleet Infrastructure Resources (FIR) support to fleet owners seeking to install EV charging to serve medium- and heavy-duty fleet operations				X			
Clean Transit Enterprise: Planning Programs				X			
Clean Transit Enterprise: Facility Modification Programs				X			
Clean Transit Enterprise: Vehicle Acquisition Programs				X			
Clean Transit Enterprise: Charging/Fueling Infrastructure Programs				X			
Clean Fleet Enterprise: Clean Fleet Vehicle and Technology Project Portfolio				X			
Clean Fleet Enterprise: Clean Fleet TNC Portfolio				X			

Resources	Related Sector						
	Foundational	Buildings	Energy Supply	Transportation	Ecosystems	Food and Waste	Water
Clean Fleet Enterprise: Remote Sensing Prioritization Portfolio				X			
Clean Fleet Enterprise: Clean Fleet Vehicle Workforce Development Portfolio				X			
Clean Fleet Enterprise: Clean Fleet Planning, Research, & Evaluation Portfolio				X			

Appendix C: Works Cited

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Appendix D: Community Engagement Summary

To help create a plan that reflected the climate change concerns and priorities of the Jeffco community, the planning process included a countywide survey and two virtual open houses. All activities were open to all members of the public and promoted by the County and its partners during June, July, and August 2022. This appendix summarizes each activity and associated results.

- [Community Survey](#)
- [Open Houses](#)
- [Public Review of the Draft Plan](#)

Community Survey

What was asked in the survey (all questions were optional)

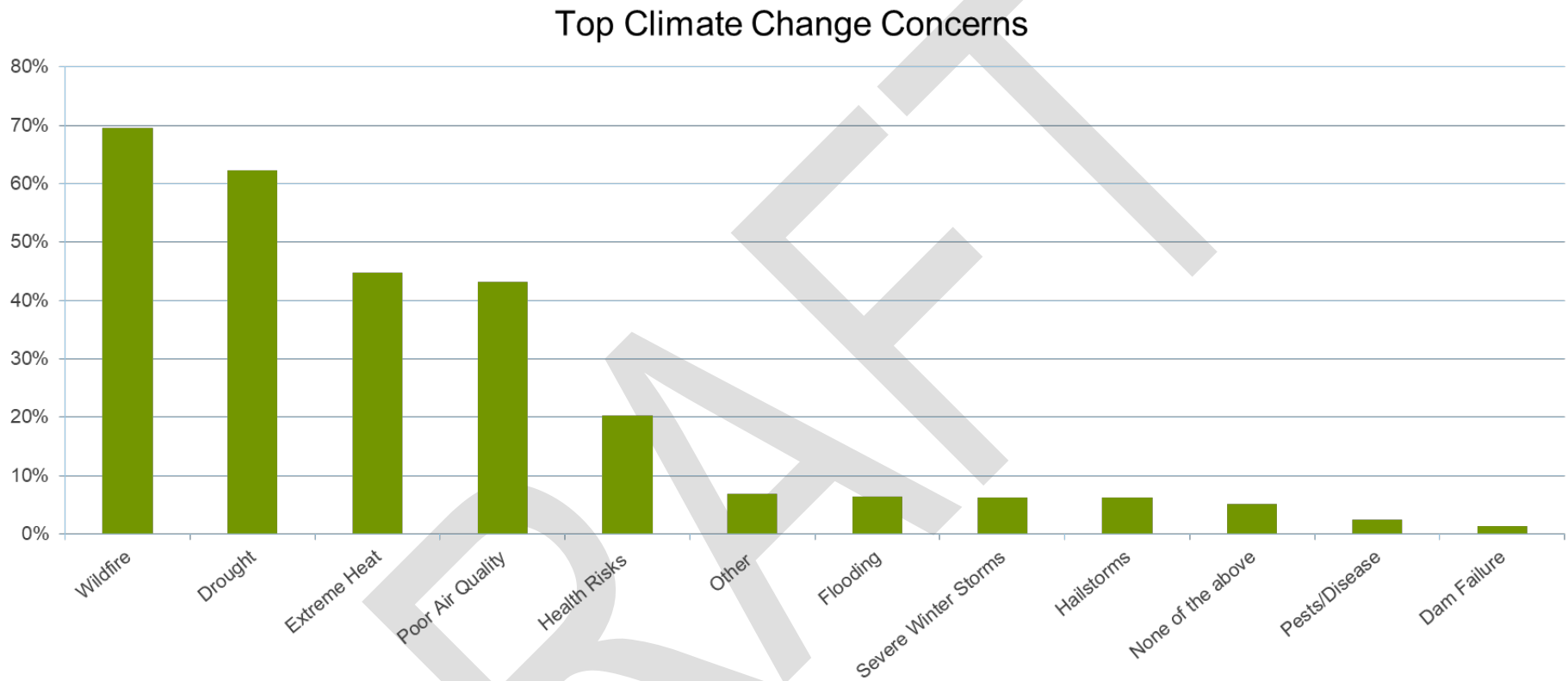
- How has climate change impacted your life?
- What climate risk are you most concerned about?
- What would you like to see happen as a result of climate action efforts in Jeffco?
- How can you reduce your contribution to climate change?
- To what degree are you willing to help combat climate change at home?
- Demographics

How the results were used in the plan development

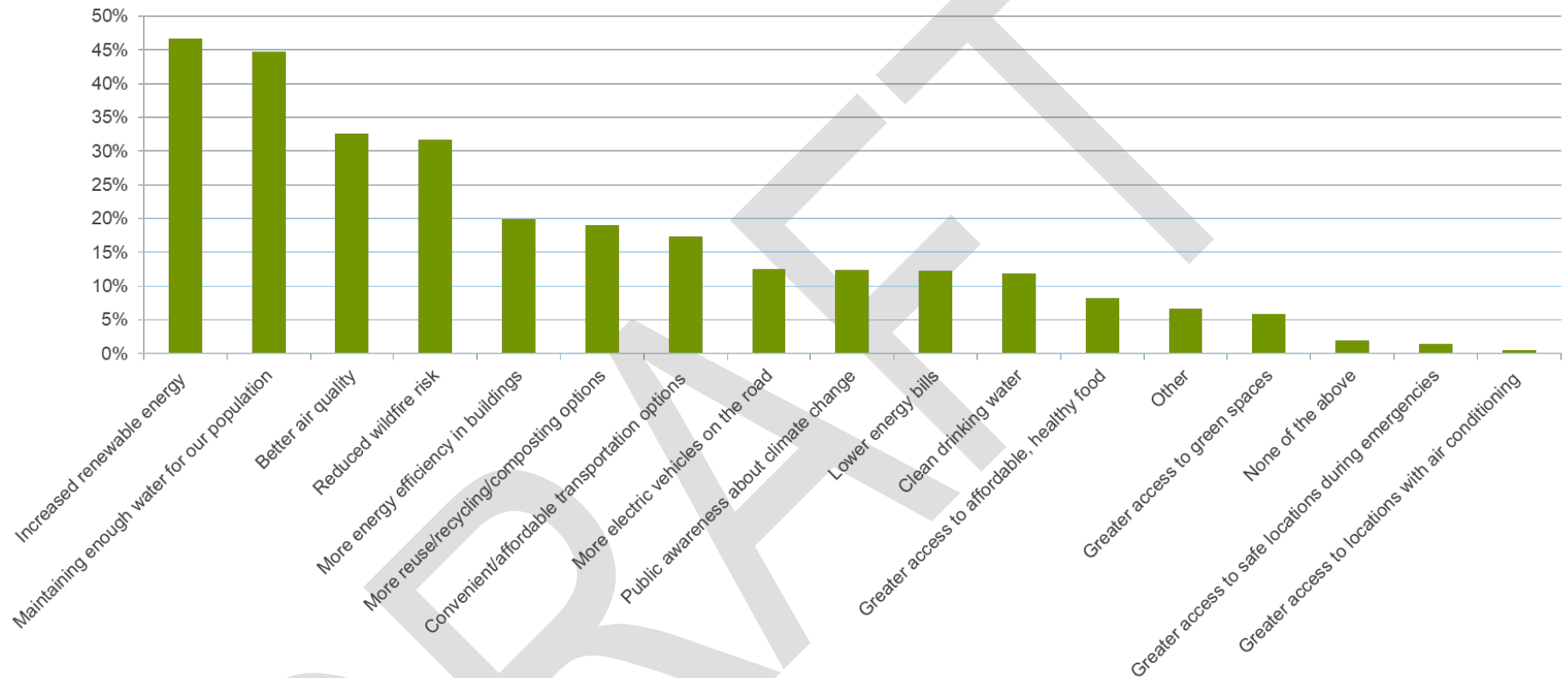
- Prioritize which solutions may be important to community members
- Understand how interested residents are in taking climate action to inform what types of solutions might be most effective
- Understand which populations were reached during the engagement process and which weren't

- Platform: Survey Monkey
- Dates Open: Jun 16 - Aug 10
- 717 total responses (708 English, 9 Spanish)

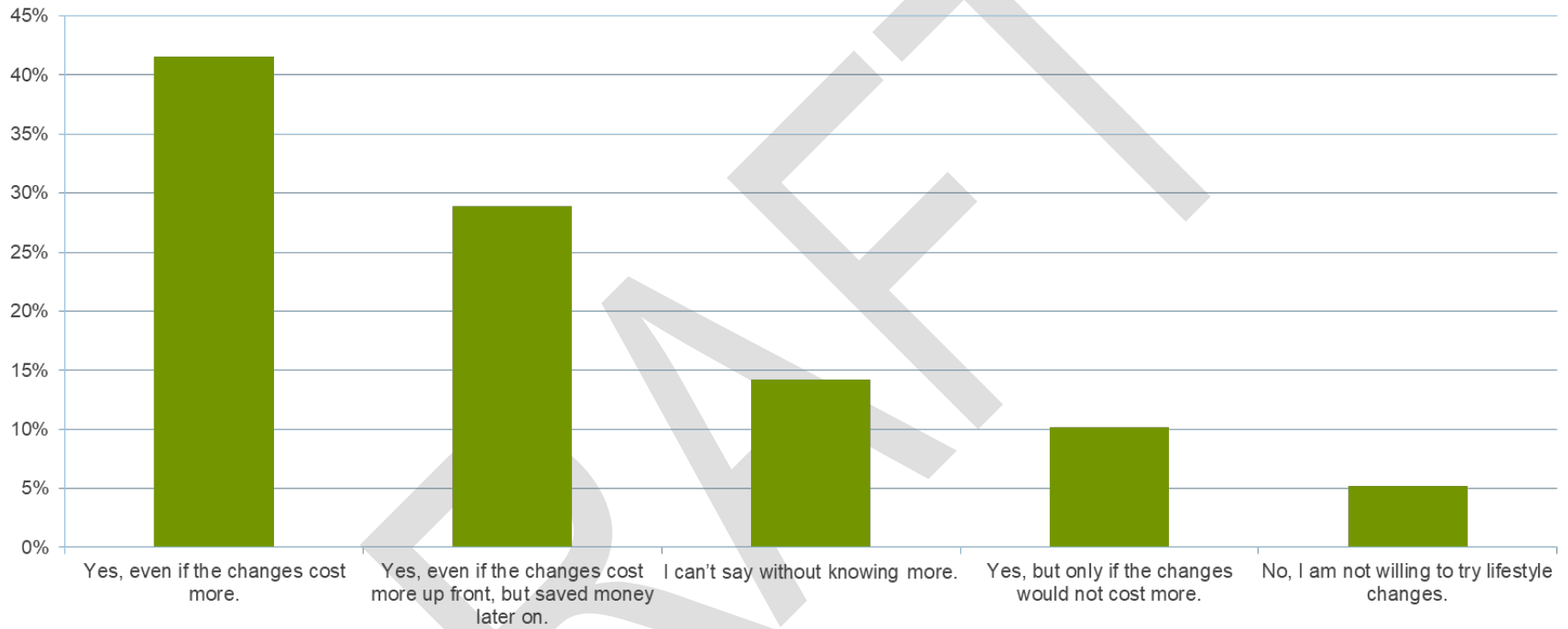
Survey Results



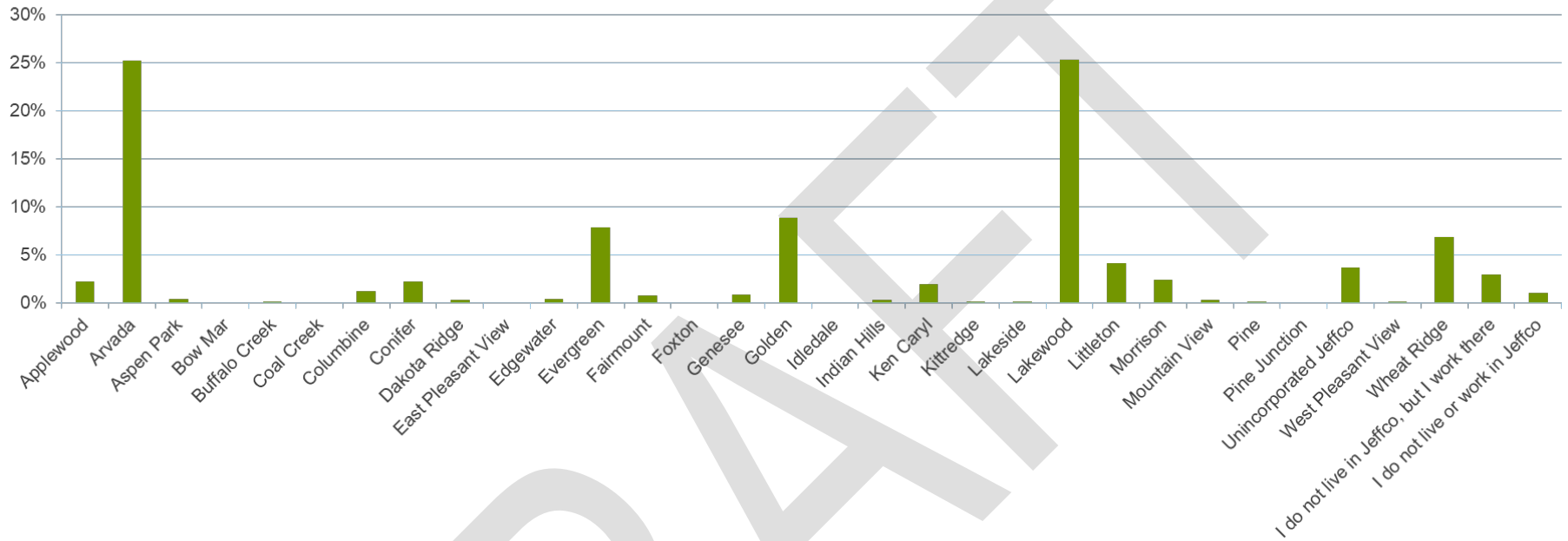
Priority Climate Action Outcomes

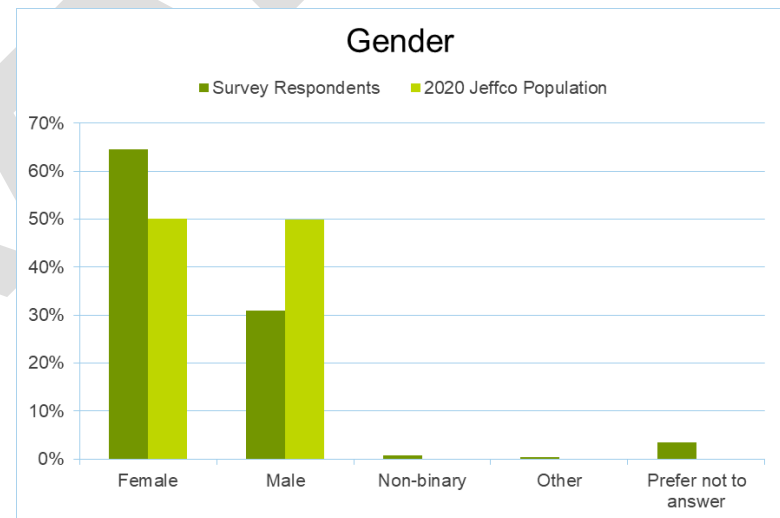
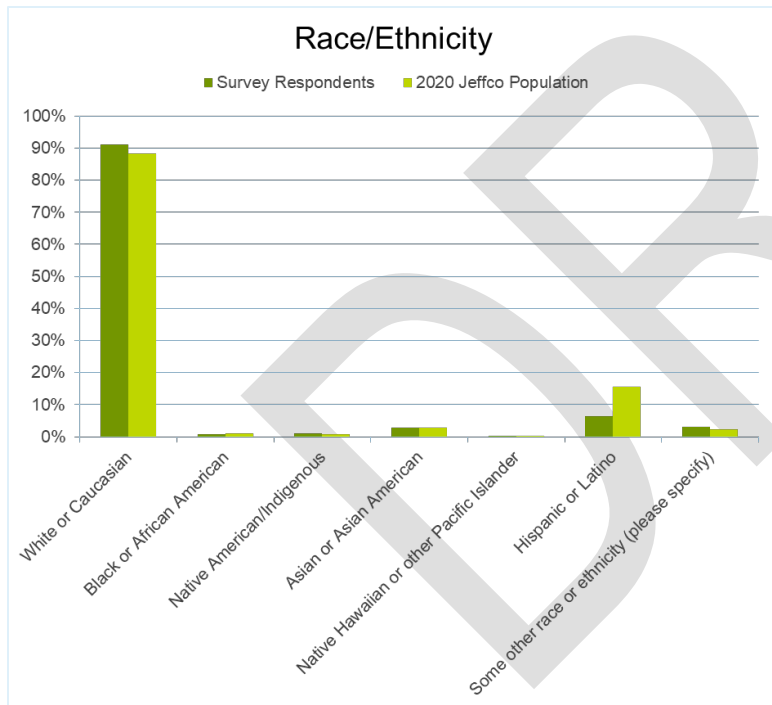
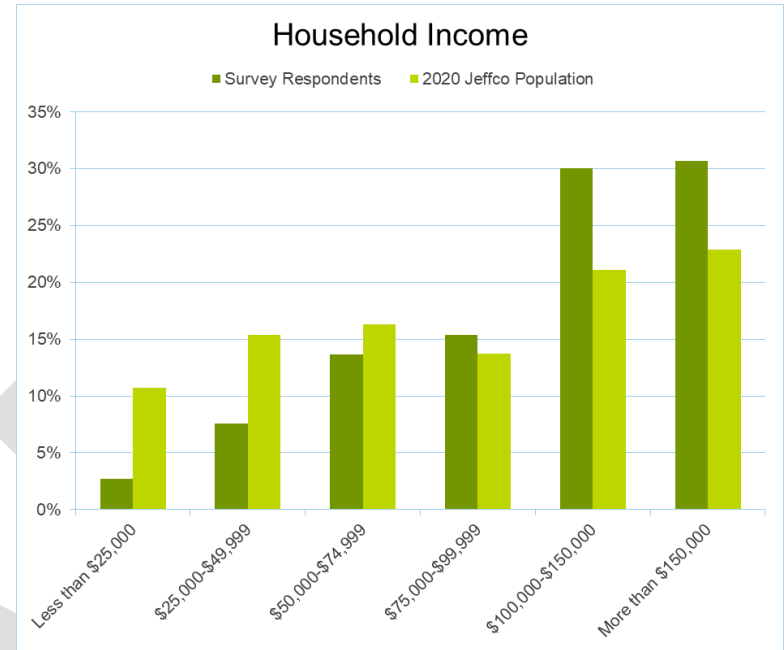
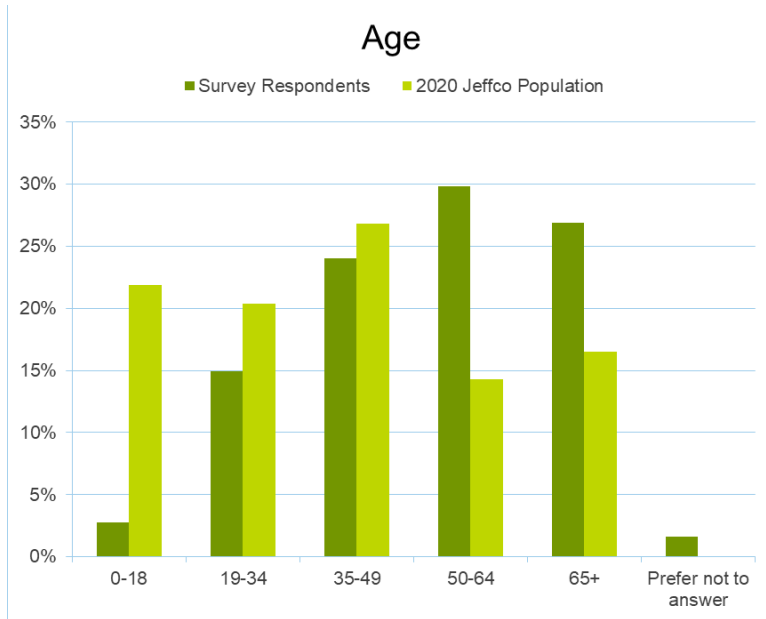


Would you be willing to try lifestyle changes in any of these activities to reduce the risk of climate change?



Where do you live in Jeffco?





Open Houses

What was asked during the open houses

- How has climate change impacted your life?
- What climate risk are you most concerned about?
- What would you like to see happen as a result of climate action efforts in Jeffco?
- How can you reduce your contribution to climate change?
- To what degree are you willing to help combat climate change at home?

How the results were used in the plan development

- Prioritize which solutions may be important to community members
- Understand how interested residents are in taking climate action to inform what types of solutions might be most effective

Open House 1 Results

- Date: August 3, 2022
- Time: 6:00–7:30 p.m.
- Location: Virtual (Zoom)
- Registrants: 40
- Attendees: 13 (this number does not include the Project Management Team)

Breakout Group Results

Breakout Group 1 Jamboards

How has climate change impacted your life?

Use the Sticky Note tool to add your ideas.

Ex. Summers have gotten hotter over the past decade

Air quality and heat impacts life - hard to be outside

Wildfires have caused serious air quality issues

Hotter summers, hotter nights

Unpredictable weather and increase in cost for staying warm/coold

Increased pests/disease with increased temperature

Climate Risks in Jeffco

Wildfire
Flooding
Extreme Heat
Severe Winter Storms
Hailstorms
Dam Failure
Drought
Poor Air Quality
Pests/Disease
Health Risks*

*Examples include breathing and heart-related issues, heat-related illness, mental stress

Which climate risk and impact are you most concerned about? Why?

Use the Sticky Note tool to add your ideas.

Ex. Wildfires: I have asthma and it is worse during wildfire season

Just the overall threat posed by climate change

Wildfires affecting air quality and being outside

Wildfire and then the flooding that often follows

Wildfires and the expanding WUI

Severe winter storms

Decreased snowpack is impacting water supply

Severe weather and increase in loss of life and decrease in quality of life

Change in the jet stream

Strain on power system

What would you like to see happen as a result of Jeffco's climate action efforts?

Use the pen tool to vote for your favorite outcomes. Use the Sticky Note tool to add new outcomes that aren't listed.

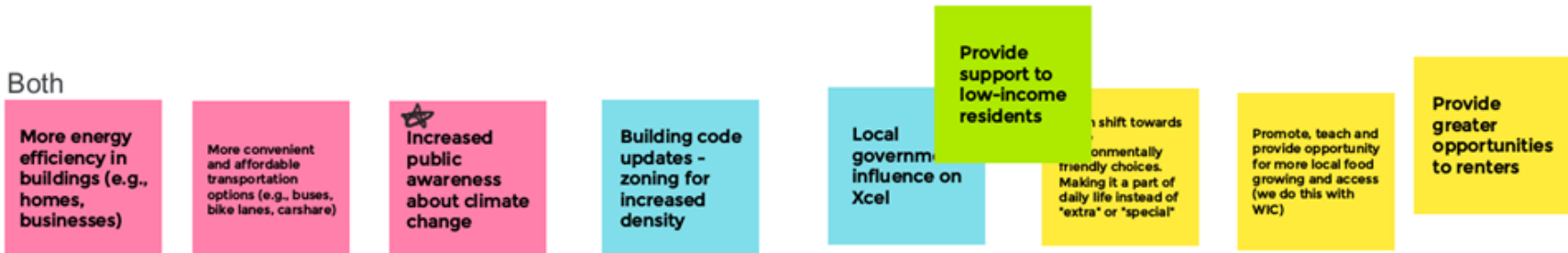
Reduce emissions



Increase resilience



Both



What is one way you can reduce your contribution to climate change?

Use the Sticky Note tool to add your ideas.

Enter your
thoughts
in a sticky
note

**Less
food
waste**

Use multi use
items and
minimize
single use
items

Carpool

Increase energy
efficiency of your
home, e.g.
weatherization
(with county
support)

DRAFT

Breakout Group 2 Jamboards

How has climate change impacted your life?

Use the Sticky Note tool to add your ideas.

Ex. Summers have gotten hotter over the past decade

Considering leaving Colorado due to water predictions- drought related

My partner and I didn't have air conditioning in our home last year. However, we couldn't open the windows to cool off the home because of the poor, smoky air quality outdoors.

a summer/early fall partic

Heat, drought, wildfires - loved ones impacted by all

Air quality is deeply challenging, especially for kids and elders.

Climate Risks in Jeffco

Wildfire
Flooding
Extreme Heat
Severe Winter Storms
Hailstorms
Dam Failure
Drought
Poor Air Quality
Pests/Disease
Health Risks*

**Examples include breathing and heart-related issues, heat-related illness, mental stress*

Which climate risk and impact are you most concerned about? Why?

Use the Sticky Note tool to add your ideas.

Ex. Wildfires: I have asthma and it is worse during wildfire season

Burden that farmers and farmworkers face: outside working conditions, water availability, etc affects our food supply

Economic impacts for lower income families - higher food prices, higher heating/cooling costs and availability

High ozone/smoke pollution/ future higher and higher costs of implementing solutions if we wait to implement them any longer

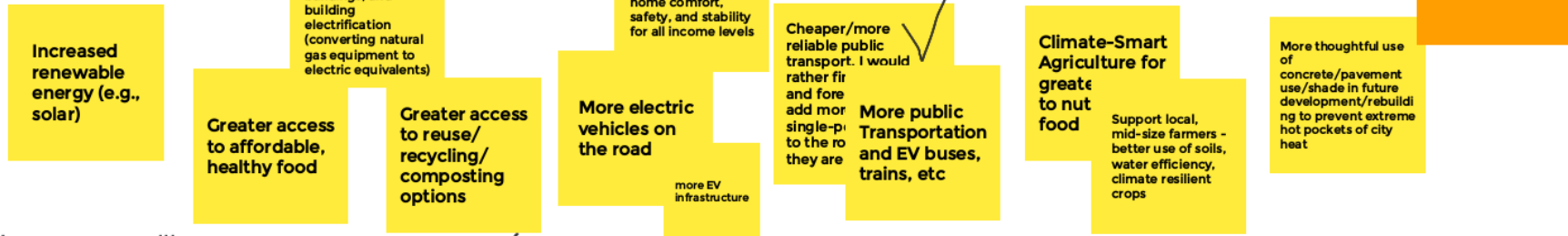
most concerned about extreme heat and drought

I am most concerned with poor air quality and the development of respiratory diseases- especially for outdoor workers and vulnerable populations.

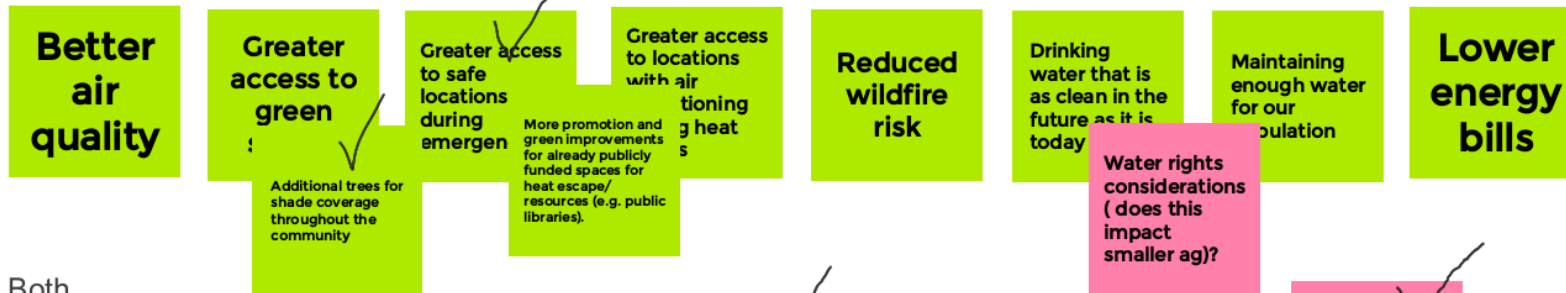
What would you like to see happen as a result of Jeffco's climate action efforts?

Use the pen tool to vote for your favorite outcomes. Use the Sticky Note tool to add new outcomes that aren't listed.

Reduce emissions



Increase resilience



Both



What is one way you can reduce your contribution to climate change?

Use the Sticky Note tool to add your ideas.

Demand corporate responsibility, re planned obsolescence

Our family has been increasing our vegetarian fare with 1-2 meals a week - dubbed "rainforest nights" by the kids :)

Replacing gas mowers and weed trimmers with electric versions

Increased awareness of choices and their impacts (travel, consumption, etc)

So far:

- walk to work
- compost food scraps
- keep home temp at 65 deg in winter, 85 in summer (cooling only one room in house to 76)
- NO ONE DAY SHIPPING
- veganism

Work remotely instead of commuting to office

I went vegan a few years ago and found a workplace that is down the street from my home to decrease my dependency on gas.

OK

Breakout Group 3 Jamboards

How has climate change impacted your life?

Use the Sticky Note tool to add your ideas.

Ex. Summers have gotten hotter over the past decade

wildfire in evergreen

Housing infrastructure insufficient to combat extreme heat (inadequate cooling)

Growing season shifting (fruiting earlier)

respiratory surgery; extreme allergic response to ozone

Proximity to urban drainage/flood control; inadequate storage; flooding is significant concern

Extreme heat along the front range, encroaching on mountain towns

Food pantries in mobile markets/parking lots closing down due to extreme heat - food access issue

warmer and drier winters yielding less snow pack

Climate Risks in Jeffco

Wildfire
Flooding
Extreme Heat
Severe Winter Storms
Hailstorms
Dam Failure
Drought
Poor Air Quality
Pests/Disease
Health Risks*

**Examples include breathing and heart-related issues, heat-related illness, mental stress*

Which climate risk and impact are you most concerned about? Why?

Use the Sticky Note tool to add your ideas.

Ex. Wildfires: I have asthma and it is worse during wildfire season

Wildfire in evergreen; proximity to wildfire-prone areas

Impacts on water and water scarcity

Viability of crops with changing climate patterns (heat/water)

resiliency measures (like cooling) that impact emissions

Economic development impacts associated with water scarcity

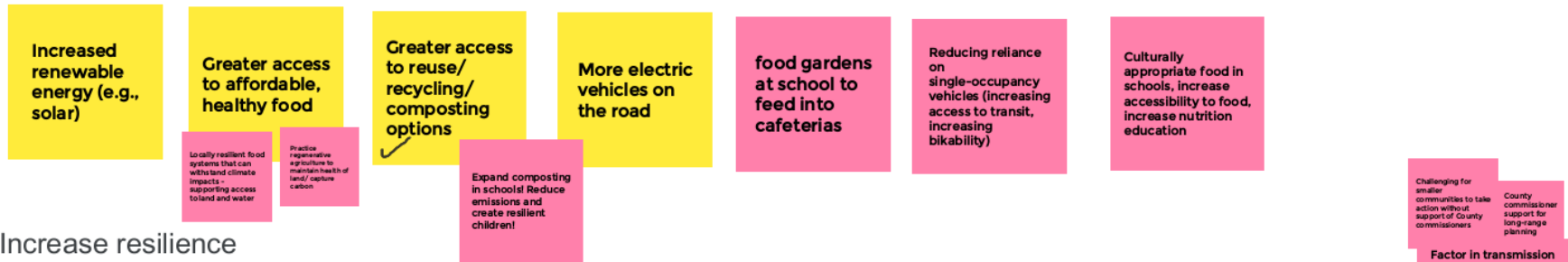
Ability of renters to upgrade housing infrastructure (e.g., cooling) coupled with time of use pricing impacting equity

Health impacts of extreme drought and wildfire

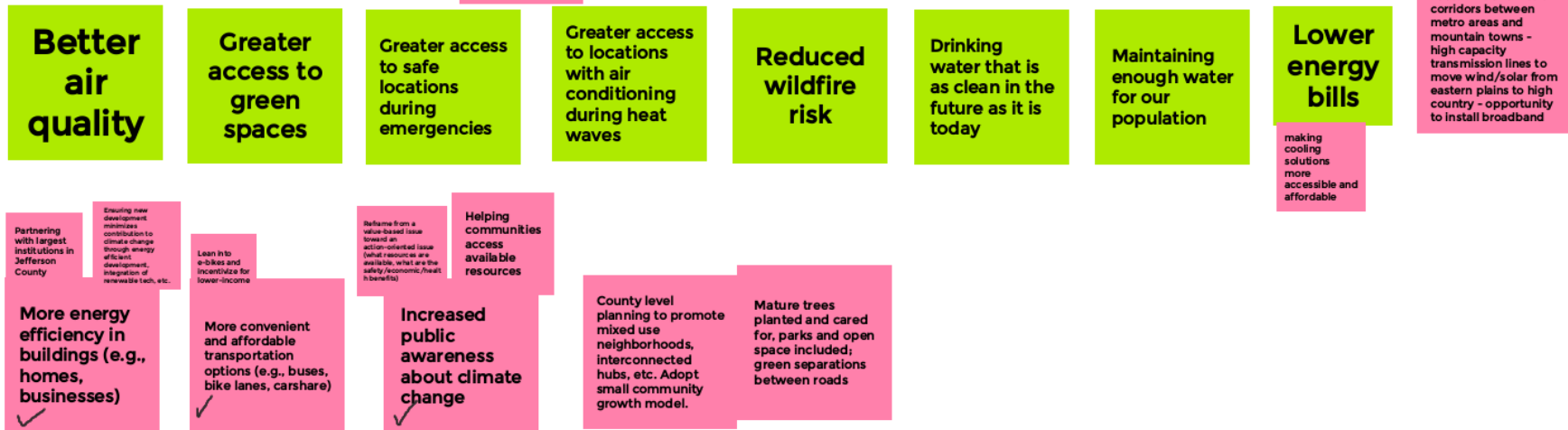
What would you like to see happen as a result of Jeffco's climate action efforts?

Use the pen tool to vote for your favorite outcomes. Use the Sticky Note tool to add new outcomes that aren't listed.

Reduce emissions



Increase resilience



What is one way you can reduce your contribution to climate change?

Use the Sticky Note tool to add your ideas.

Compost!

**One
person
can make
a change!**

**Be
vocal**

**Consumer
responsibility**

**Not one,
but TWO
electric
vehicles!**

**Go
solar**

**Public EV
charging
station in your
driveway!**

**Reduce your
trash -
reconsider
your
purchasing
decisions**

OK

Open House 2 Results

- Date: August 8, 2022
- Time: 6:00–7:30 p.m.
- Location: Virtual (Zoom)
- Registrants: 33
- Attendees: 15 (this number does not include the Project Management Team)

Breakout group results on next pages.

Breakout Group Results

Breakout Group 1 Jamboards

How has climate change impacted your life?

Use the Sticky Note tool to add your ideas.



Which climate risk and impact are you most concerned about? Why?

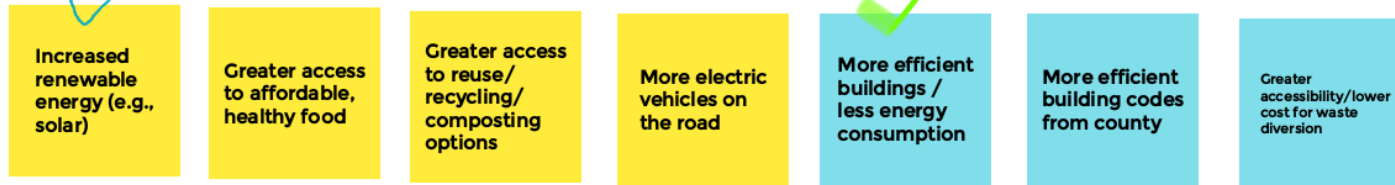
Use the Sticky Note tool to add your ideas.



What would you like to see happen as a result of Jeffco's climate action efforts?

Use the pen tool to vote for your favorite outcomes. Use the Sticky Note tool to add new outcomes that aren't listed.

Reduce emissions



Increase resilience



Both



What is one way you can reduce your contribution to climate change?

Use the Sticky Note tool to add your ideas.

**Consolidate
trips**

**Conserve
water**

**Less
AC**

**Consolidate
trips**

OK

Breakout Group 2 Jamboards

How has climate change impacted your life?

Use the Sticky Note tool to add your ideas.

Ex. Summers have gotten hotter over the past decade

Given me a job:)

Hotter summers, earlier and inconsistent monsoon seasons.

Hotter summers. More droughts. Higher likelihood of extreme weather events.

wildfire evacuation led to me volunteering as firefighter

The drought and low water levels in reservoirs affect recreation and wild water

Climate Risks in Jeffco

Wildfire
Flooding
Extreme Heat
Severe Winter Storms
Hailstorms
Dam Failure
Drought
Poor Air Quality
Pests/Disease
Health Risks*

*Examples include breathing and heart-related issues, heat-related illness, mental stress

Which climate risk and impact are you most concerned about? Why?

Use the Sticky Note tool to add your ideas.

Ex. Wildfires: I have asthma and it is worse during wildfire season

Heat, drought, wildfires, floods

Unpleasant to be outside in the summer. Threats to life and property.

Drought, fires, heat

Lots of down trees increasing fire risk

Smoke impact of fires and impact on health

extreme heat because of all the cascading effects

Much of Jeffco is a fire reliant ecosystem; need to manage to "productive fire"; limit ability do prescribed burns

competition for resources/conflict potential

Drought, fires, extreme heat,

Severe storms

What would you like to see happen as a result of Jeffco's climate action efforts?

Use the pen tool to vote for your favorite outcomes. Use the Sticky Note tool to add new outcomes that aren't listed.

Reduce emissions

Increased renewable energy (e.g., solar)

Greater access to affordable, healthy food

Greater access to reuse/recycling/composting options

More electric vehicles on the road

Encourage development of regional composting centers

accessible and convenient public transit

Encourage more farmland/no till farming techniques

Does water supply affect ability to do local farming? Maybe lots of ditch water and well water

Make sure we distinguish between desired outcomes and actions to reach those

indoor or greenhouse farming; hydroponics

Embodied carbon in building materials; require recycled steel, high fly-ash, alternative concrete

Increases

Better air quality

Greater access to green spaces

Greater access to safe locations during emergencies

Greater access to locations with air conditioning during heat waves

Consider global emissions impact vs Jeffco emissions impact

Emphasis on local sustainable food production

Wildfire risk - Fire mitigation efforts

Drinking water that is as clean in the future as it is today

Non-potable water supply in Jeffco; are golf courses using non-pot

Use greywater in residential areas to save water for agriculture.

Maintaining enough water for our population

Lower energy bills

Community gardens to help alleviate food deserts - include in residential areas; Go farm trailer

More orchards (Applewood); some cattle in the county around Arvada and some in mountains

Stormwater reuse

Both

More energy efficiency in buildings (e.g., homes, businesses)

More convenient and affordable transportation options (e.g., buses, bike lanes, carshare)

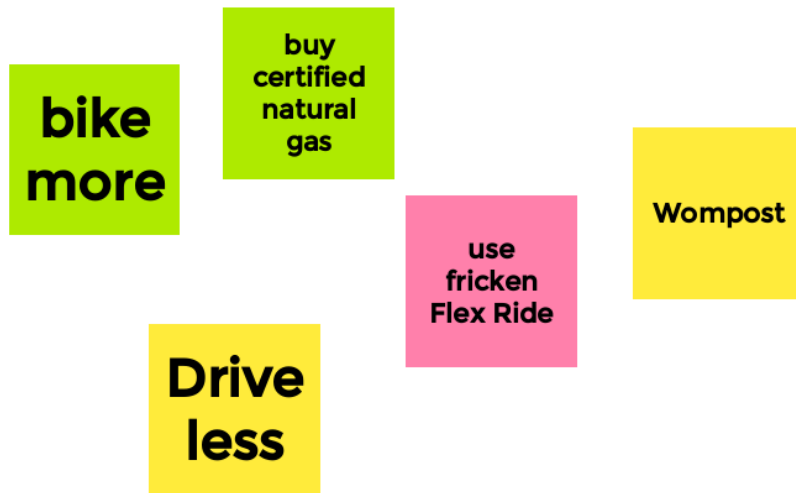
Increased public awareness about climate change

walkable communities

education for all the ages

What is one way you can reduce your contribution to climate change?

Use the Sticky Note tool to add your ideas.



Breakout Group 3 Jamboards

How has climate change impacted your life?

Use the Sticky Note tool to add your ideas.

Ex. Summers have gotten hotter over the past decade

No personal experience with climate risks

Extremely poor air quality in commerce city.

We've been impacted by watering restrictions due to drought

Another way that climate change has impacted us is that we've taken action to mitigate climate change (solar panels, electric cars, electric HVAC and water heat)

Oh yes - to that point, our winters are getting later and later in the year

Climate Risks in Jeffco

- Wildfire
- Flooding
- Extreme Heat
- Severe Winter Storms
- Hailstorms
- Dam Failure
- Drought
- Poor Air Quality
- Pests/Disease
- Health Risks*

*Examples include breathing and heart-related issues, heat-related illness, mental stress

Evacuated off of Green Mountain in past 5 years because of wildfire. Second wildfire in last 26 years. Large wildfire in bear creek lake park. Wildfires are happening at urban interface.

Respiratory illness in summer months.

Hotter days, impacts daily activities and pet care. Longer stretches of time with days of heat.

History of hot summers, but not as bad this year.

Heat can be more troublesome for workers who work outside.

2017 hailstorm damage - HOA-wide.

Roof replaced 2-3 times over course of 5 years

Which climate risk and impact are you most concerned about? Why?

Use the Sticky Note tool to add your ideas.

Ex. Wildfires: I have asthma and it is worse during wildfire season

Wildfire. Camping in April, too windy to be out, red alert for wildfires because of dry and wind. Developed evacuation plan.

Drought. Colorado River running dry.

Water. Dry state and major water supplier. Where will the water come from and how will we meet population growth.

Standard of living and economic development issue.

I worry most about the aridification of Colorado's wilderness - it has been reported that our state could look more like Arizona in the next few decades

global species loss worries me

Rise in occurrence of hail storms and insurance implications

access to insurance/law support can effect your ability to recover from climate hazards.

ability to get flood insurance depends on where you live; where you live can depend on affordability of land. Important to acknowledge risks of living in certain areas.

What would you like to see happen as a result of Jeffco's climate action efforts?

Use the pen tool to vote for your favorite outcomes. Use the Sticky Note tool to add new outcomes that aren't listed.

Reduce emissions

Increased renewable energy (e.g., solar)

Greater access to affordable, healthy food

Greater access to reuse/recycling/composting options

More electric vehicles on the road

Charging infrastructure and equity considerations. At home charging often require access to a garage [with electricity capacity]

Without access to at home charging, can be hard for prices to compete with gas.

Approach charging as a utility - municipally funded utility - charge at the curb or in parking lots

marketing or getting the word out for rebates and incentives available (e.g., Xcel Energy rebates for multifamily)

Increase resilience

Better air quality

Greater access to green spaces

Greater access to safe locations during emergencies

Greater access to locations with air conditioning during heat waves

Reduced wildfire risk

Drinking water that is as clean in the future as it is today

Maintaining enough water for our population

Lower energy bills

Schools powered by solar have better air quality - improve student health and learning

Could all JeffCo schools be net-zero energy

Water suppliers doing a good job of providing clean water now.

State of Colorado and municipalities are taking initiative related to GHGs - want to leverage existing efforts without duplication and adding costs

Both

More energy efficiency in buildings (e.g., homes, businesses)

More convenient and affordable transportation options (e.g., buses, bike lanes, carshare)

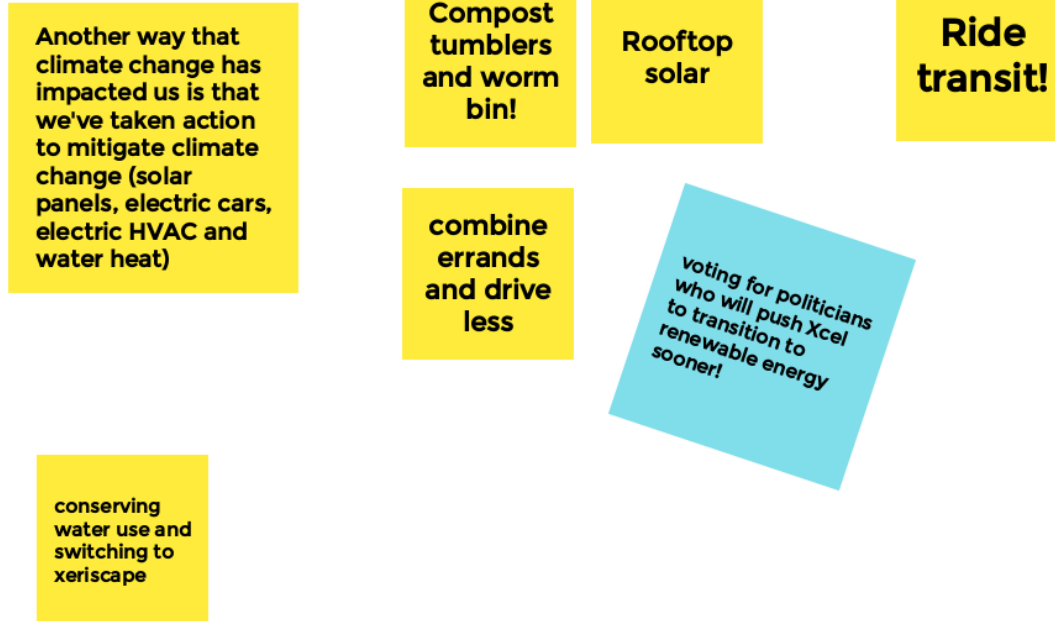
Increased public awareness about climate change

Jeffco could foster clean-energy local businesses & good jobs by offering tax incentives and making building codes green

...fosters a local green workforce too!

What is one way you can reduce your contribution to climate change?

Use the Sticky Note tool to add your ideas.



Plan Review

The draft plan was available for public review between November 9-27, 2022. During this time Jefferson County community stakeholders were able to download the full draft plan in English and the Plan At-A-Glance in English and Spanish. Comments were received through an online form. Members of the Sustainability Commission presented the draft plan at the following meetings during the public comments period:

- Jefferson County Sustainability Commission meeting on November 8, 2022.
- Jefferson County youth focus group organized by the Sustainability Commission on November 14, 2022.
- Jefferson County Board of Health meeting on November 15, 2022.
- League of Women Voters of Jefferson County meeting on November 18, 2022.

In addition to the public review, the draft plan made available for review by Jefferson County staff and the Steering Committee.

A total of 60 public comments from 27 submissions through the online form and by email were received and are listed below.

Public Comment	Proposed Response
How much new generation will we need to bring online to convert 50-80-100% of homes and cars to electric? How much of that generation can be renewable and how much will come from natural gas? Aren't we simply changing where the GHGs are emitted by significantly increasing the requirements for natural gas generation?	Based on utilities' renewable energy commitments, GHG emissions from the electric grid are anticipated to be less than GHG emissions from natural gas within the decade. While there may be natural gas generation in 2050 in Jefferson County, it is anticipated to be a significantly smaller proportion compared to today's mix. However, it is still critical to ensure capacity and electrical load are aligned. Proposed Edit: Edit action step for <i>EN-2: Utility-Scale Renewable Energy Generation and Storage</i> to read "Participate in and partner with organizations that advocate at the Public Utilities Commission (e.g., Colorado Coalition for Climate Action (CC4CA)) for increased, equitable renewable energy options that meet the needs of anticipated transportation and building electrification. (Advocate)"

Most of us realize that climate change is upon us and that we all need to act quickly and aggressively to try and get a grip on it. I am very glad to see the action plan that Jefferson County is working on. It looks like a reasonable plan and it appears that the majority of it is achievable. There needs to be more community awareness of this plan, so that all of the citizens of Jeffco know what is going on and can get on board with assisting with this plan. If we all work together and make changes the plan could very well succeed with its goals. I for one am tired of looking at the ugly brown skies that we all see and breathe from the air pollution. We also need to cut our wasteful water use so that we all have drinking water in the future.	No plan edit was requested in comment
We appreciate that Preserving the Natural Environment is a priority solution in the Ecosystems section of the Plan, which calls for "preserving, protecting, connecting and enhancing open space, forests and natural areas". The draft also notes the benefit of carbon sequestration provided by healthy forests, wetlands and riparian ecosystems. The first goal of the Plan is to reduce GHG (Greenhouse Gas) emissions. We would also like the benefit of carbon sequestration to factor more prominently into the Plan. We must do two things: reduce GHG emissions AND sequester the carbon that is already in our atmosphere. Preserving riparian ecosystems in places like Bear Creek Lake Park can be part of this solution. The Climate Action Plan includes a section on Water which calls for Water Conservation and Diverse and Resilient Water Supply. Agreed. As we pursue resiliency in water supply, let's seek to minimize highly evaporative surface storage in places like Bear Creek Lake Park. The forests, wetlands and riparian ecosystems within BCLP absorb carbon. They are part of the solution. Let's prioritize opportunities to conserve and use water more efficiently, and store it more sustainably, as we build climate resiliency. Gary Wockner Save The Colorado	- Carbon sequestration benefits are mentioned in the Ecosystems sector, but could be elevated. Proposed Edit: Edit description of <i>EC-1: Preserving the Natural Environment</i> to read: "Improve the resiliency of ecosystems in Jefferson County to better withstand climate change impacts and to provide key ecosystem services to climate change impacts – including flood and wildfire mitigation, carbon sequestration, and water quality management – by preserving, protecting, connecting, and enhancing existing open space, forests, and natural areas." - Carbon sequestration benefits of a natural feature like Bear Creek Lake Park is not expected to significantly impact either plan goal. Carbon sequestration potential for Jeffco is much greater through its forests and the Bear Creek Lake Park area is not located in a disproportionately impacted area of Jeffco according to the CDPHE Climate Equity Data Viewer.

What criteria is set in writing to clarify disparities risks and implementation of what? To address? *Resilience Goal *Reduce climate risk for all people with priority to those experiencing the greatest disparities? Climate change often disproportionately impacts "certain groups of people?" including households with lower incomes, those with health conditions, and older adults	Proposed Edit: Edit language directly after the goal statement in <i>Our Climate Resiliency Goal</i> to read: "Those with the greatest disparities are defined according to the CDPHE Climate Equity Framework as people of color, Indigenous people, lower-income individuals, historically underrepresented groups, children and older adults, and those experiencing multiple environmental burdens. Successfully addressing this goal includes using CDPHE's Climate Equity Scores (or similar tool) to prioritize investment, resources, and policies to reduce the correlation between population characteristics (like race and income) and health outcomes."
Hi - please add me to your stakeholder mailing list. Also, I had a question on your Plan-At-A-Glance PDF. It is a very well laid-out guide, but it doesn't include costs to implement any of the planned changes. Can you please update that PDF with estimated annual costs incurred, both by the county directly, as well as by businesses for increases building or maintenance costs, and potential tax payer increases? Thank you, Dane Nelson	A cost analysis was not done as part of this planning process
Let me start by stating that I am so very grateful to be a resident of JeffCo. The county's commitment to reducing GHG's and the corresponding plan are exemplary! I have a few suggestions for the next draft that I hope would make the plan stronger. I am more than happy to hop on a Zoom or meet in person to discuss these ideas further if that would be helpful. <u>Overall Structure</u> The overall objectives are very clearly laid out right on page 2. I believe this will help everyone understand the purpose of the plan. Further breaking down those objectives into Climate Action Solutions by Sector makes perfect sense. <u>Objectives and Key Results for each Climate Action Solutions by Sector</u> Here I am drawing from two fantastic books by legendary venture capitalist and climate activist John Doerr. ""Measure What Matters"" defines OKR's	Objectives and key results were not included in the scope of this project, but could be an effective first step for implementation. Proposed Edit: <i>Structuring Implementation</i> to read: "Cross-Departmental County Climate Team: Key contacts from various County departments will be identified and will meet on a monthly or quarterly basis to confirm priority actions for the following month, quarter, and year; assign roles; develop objectives and key results for each priority action; and report out on past work. These departments will provide timely, accurate data on both past performance and results as requested by the Lead

(Objectives and Key Results), how they were created by former Intel CEO Andy Grove and then adopted by Google, The Gates Foundation, Bono and others to drive rapid change. ""Speed & Scale"" is Doerr's application of OKR's to solve the climate crisis. I highly recommend both works as I think they will greatly aid in your success.

Looking at each Climate Action Solution section, I believe they could be strengthened if re-written as OKR's. This would allow you to take the overall goal ""Reduce greenhouse gas (GHG) emissions by 73% by 2035 from 2015 levels while centering equity"" and break it down into its component parts. I think readers could follow the plan more easily if each Climate Action Solution section started with an objective that is that section's contribution to the 73% reduction. For example, the Energy Supply section could start with a pie chart that shows how much of the 73% Energy Supply will address and another pie chart that shows which Key Results will drive those reductions within Energy Supply. I did see that this data was in the document on pages 60-61 but I believe it deserves to be more prominent for clarity of purpose.

In terms of Key Results for each Climate Action Solution section, I suggest that you consider Key Results for each of the following categories:

- Reduction of current county emissions through direct action (e.g. eliminating ICE vehicles in the county fleet)
- Reduction of current city emissions through indirect action (e.g. advising JeffCo cities on how to eliminate ICE vehicles in the city fleet)
- Reduction of current energy supplier emissions through indirect action
- Reduction of current business emissions through incentives (e.g. tax credit for renewable investment or building efficiency)
- Reduction of current business emissions through code change (e.g. new building code to require renewables or building efficiency)
- Reduction of current business emissions through education (e.g. programs to raise awareness of the benefits of using renewables or increasing building efficiency)
- Reduction of current residential emissions through incentives (e.g. tax credit for renewable investment or building efficiency)
- Reduction of current residential emissions through code change (e.g. new building code to require renewables or building efficiency)

Coordinator to ensure that tracking and reporting are effective."

• Reduction of current residential emissions through education (e.g. programs to raise awareness of the benefits of using renewables or increasing building efficiency) I have attached the companion PDF from ""Speed & Scale,"" which includes a number of OKR's so you can see working examples. I hope these recommendations are helpful for the next draft of your plan and ultimately for your success. I am at the ready to help you succeed in any way I can. Thanks for reading. Two items I forgot to include. I think there should be an OKR for how much charging capacity is added by JeffCo and by partners like cities. This is a good example of the difference between an OKR and what is in the plan currently ""Develop a countywide electric vehicle readiness and infrastructure roadmap"" in T-1 page 45. A possible OKR could be: Objective: Increase paid and free charging capacity by 500% KR1: Add EV charging to all JeffCo lots that have public access KR2: Add solar generation to all JeffCo lots that have public access KR3: Add battery storage to all JeffCo lots that have public access KR4: Share project plans and outcomes of JeffCo EV charging initiatives with sustainability managers in JeffCo cities KR5: Apply for EPA funding for JeffCo EV infrastructure (solar, storage, charging) The second point picks up on KR5. I think it is implicit in the plan that you will be applying for funds from the Bipartisan Infrastructure Bill and the Inflation Reduction Act but I believe the plan would be stronger if it was specifically spelled out. I know as a resident that I want JeffCo, and JeffCo cities, to secure as much funding from those acts as possible. Thanks again for listening!	
Under "Action Steps" for T-2, the emphasis is on steps toward research and strategy. We need actionable steps in 2023-2025 that center on urgent funding and construction and a tangible shift in spending. Lay out the project(s) you plan to fund by 2025.	Transportation projects are informed by Transportation Master Plans, Bike Plans, and other processes. However, a focus on implementation of projects could be elevated. Proposed Edit: Add action step to T-2: <i>Multimodal Transportation Systems and Land Use Planning</i> "Coordinate the implementation

	of transportation-related plans across Jeffco to support comprehensive and connected transportation improvements. (Convene)"
Replacing turf is not a solution of itself because the basic issues--HOW MUCH TO WATER, AND WHEN TO WATER, have not been addressed. There is readily available technology to aid water users in answering these questions. I know because I use one piece of that technology--a soil moisture sensor--and I cut my water use by 26% compared to the same period a year ago. You are wasting your time on this topic unless you address these key issues.	This plan identifies multiple approaches to water conservation through actions in the W-2: Water Conservation solution, including implementing water-saving technologies.
As far as I can tell, there is no mention of how gas powered lawn mowers and other such equipment impact our air quality. The impact is substantial--see the published information on this topic. In addition to air pollution, there is a lot of noise pollution from using these devices. Further, it is foolish to mow a yard so that it looks like a paved road. I let my grass grow to 3-4 inches, and keep it there during the season. The result is less air pollution and less water use. That taller grass functions much like a cover crop in the agricultural context because it shades the ground, thus reducing evaporative loss. This is a simple, common sense approach that anyone can adopt. That includes city and county owned green spaces.	Proposed Edit: Edit action step for <i>T-1: Electric Vehicle Adoption</i> to read: "Collaborate with regional agencies on expansion of funding for programs that support low-emissions landscaping (e.g., electric lawnmowers) and snow removal equipment. (Fund)". Proposed Edit: Edit action step for <i>EC-1: Preserve the Natural Environment</i> to read "Include education about the value of ecosystem services (e.g., benefits of reducing mowing) and the role of biodiversity in measuring ecosystem health, as part of F-1 outreach. (Educate)"
I would like to see more regarding the restoration of the natural environment in addition to preservation.	Proposed Edit: Title of EC-1 to "Preserve and Restore the Natural Environment" and include "restoring" as part of solution description. Action steps already speak to restoration.
Electric cars are not the way forward. The energy needed to mine for rare earth metals such as lithium and for the production of EV batteries would offset the reduction of emissions from EVs. The solution is fighting urban sprawl by building a higher density city and expanding public transit to where it becomes a reasonable option for most people to commute to their homes, workplaces, schools, or wherever else they need to go.	In order to reach the GHG emissions goal, both EVs and multimodal transportation were identified as critical components. Reduction of total vehicle-miles-traveled (VMT) identified as a key transportation outcome in Table 3.

Repurpose some of the buildings (due to the hybrid nature of some departments)	Proposed Edit: Edit action step for <i>B-1: Climate-Resilient and Low-Carbon New Construction</i> to read "Research opportunities for building and development code improvements, including opportunities for building reuse/repurposing. " (Research/Strategize)
Please start participating in programs that incentivize private citizens in conserving water. I lived in Lafayette and there are a lot of options from free home inspections for indoor water use, to free sprinkler consultations, payout to remove water wasting lawns and discounted garden in a box. You mention the garden in a box but the city of Lakewood is not participating in the program and doesn't give the discount other municipalities give. There are also programs that pay a small amount for every sq ft of lawn removed and they offer discounts for the removal on top of it. Please look at what Lafayette is doing. I would be very willing to remove my front lawn if I could get some help with the costs. This is the group I'm familiar with and used many times. https://resourcecentral.org/ https://resourcecentral.org/lawn/	Proposed Edit: Add action step for <i>W-1: Water Conservation</i> to read " Coordinate with water providers to expand the ability for Jefferson County community members to participate in water conservation programs, such as those offered by Resource Central. (Convene) "
In my opinion, currently, it is definitely cost prohibitive for people to convert their existing home that uses gas & electricity to an all electric home. Recent article in the Denver Post lists the cost for conversion to all electric at around \$50,000 for a home of approximately 2,000 sq ft.. The article says "with rebates, figure \$35,000 to \$43,000..." Article also mentions possibility of tax credits and rebates related to the Inflation Reduction Act as of 1/1/23. I looked up those details of the Inflation Reduction Act.. very complicated, varying rebates depending on household income, contractor used, etc. Definitely would need someone knowledgeable about all of the options to explain the details.	Proposed Edit: Edit action step for <i>B-2: Climate-Resilient, Efficient, and Healthy Homes</i> to read "Include energy efficiency, electrification, and related improvement programs as part of F-1 outreach, including education to support navigating new funding opportunities from federal, state, and utility programs. (Educate)"
The fake "Climate Change" and fake "Global Warming" global scam is nothing but an overwhelming attempt by the leftist Communist Traitors to totally control the people. Anyone who supports this plan is deliberately trying to destroy the freedom of American patriots, or is simply one of Marxist's "Useful Idiots"!	No plan edit was requested in comment
I am writing on behalf of Clean Energy Lakewood, a volunteer policy group and an emanation of our town's neighborhood sustainability committees. Our primary goal is to see Lakewood catch up with its sustainability plan goals. Had there been no plan in Lakewood, our group probably wouldn't have started to exist. With that, we commend you on passing a plan for the county, it is a valuable and	Jefferson County currently has two staff members designated as Sustainability staff. The plan includes resource estimates for each solution that are intended to inform County staffing for implementation.

necessary first step. It also seems well thought-out. I am personally aware of 100s of people who are watching this plan come to fruition, for us it is a top priority, often determining how we vote. And even for those who are focused on other aspects in this phase of life, sustainability is key to all our families and their future. After having analyzed and/or participated in the green initiatives of Lakewood, several other towns in CO, and state policy for a couple decades, we also need to highlight that setting goals is only a first step. Jeffco will also need to give itself the means to achieve its goals: a senior executive, staff in the sustainability Dept., and budgets for the staff to hire contractors that actually implement in the community. Having studied carefully what communities are succeeding with their plans, one key ingredient is to start by putting in place and empowering a Chief Sustainability Officer. The communities with a CSO are succeeding, the ones without are all failing to meet the goals they set for themselves. Sustainability permeates all aspects and departments of a community's government, it is a wide, long-term undertaking implying many concrete changes, with deep systemic transformations to change our societies from an unsustainable linear economy to a circular economy where one activity's waste is the next process' supply. Funding opportunities from the State and the Federal Government are unprecedented, and communities with tried and true efforts will be logically prioritized. Sustainability is broad, complex, long-term and difficult undertaking, it therefore requires a leader at the highest executive level. Towns and counties which thought they could do without are all failing at implementing serious plans. The argument that because sustainability affects all departments, it doesn't need a separate chief, is a cop out. Money permeates all departments, no one contests the need for a Chief Financial Officer. Computer technology permeates all departments, no one contests the need for a Chief Information Technology Officer. Why would it be any different with sustainability? Not appointing a CSO often amounts to management refusing to implement the strategies set by our elected officials. With the approval of the plan, please make sure and give our county the means to implement it, starting with the creation of a CSO position, and quickly building this Dept to a dozen full-time staffers. Since Mayor Hickenlooper's fruitless Denver Greenprint Initiative, Coloradans who are focused on sustainability have painfully learned to differentiate between elected officials who mean what they say and those who fall for nice green PR. There are many things on which the County has more ability to act than the towns within. For instance, Lakewood has been unable to find land for a recycling and

composting center because of the noise, traffic and odors, which would not be difficult in a developed neighborhood. Lakewood has also been unable to find a land for a community solar garden, when this would not create any noise, traffic or smells, and we wonder if our town may be too built already. The County is blessed with a much higher proportion of undeveloped land. We are eagerly following the reopening of the slash site at Rooney Road, and hope this can help the towns in the county. We in fact hope it can be more than just for tree slash, and can include composting of food waste, and lead to redistributing both mulch and composted dirt back into the community. Our clayish soils are too poor, they don't retain water and they would greatly benefit from incorporating more organic materials. We've all seen the creations and increases of storm water management bills, and we can expect these issues to only increase with the number and intensity of freak weather events. We also know Colorado needs all the water it can get. Yet enriching soils with organic materials means they are permeable to rain water, the water doesn't run off, it feeds the land and our aquifers, instead of creating hazards (if you would like to see this more concretely for yourselves, please watch The Little Big Farm, which also makes for a feel-good night with the family). This is one example of how to transform our human communities from dead-end linear patterns to sustainable circular one... and one example where the County's action is needed. Thank you for building this plan, please approve it, and please focus on making sure the means are given to implement it.	
This is a convoluted plan, albeit a well-meaning gesture that will have little or no impact on our lives. The idea that one county's effort can affect global warming by penalizing its citizens is an empty and naive notion. If all of the U.S. observed the strictest of global warming initiatives, the world would be no better off since China, India and much of Africa have absolutely ignored any efforts to control carbon emissions. JeffCo's plan is a waste of money and a waste of resources. You should concentrate on solving real problems that real people are concerned with. Fix the streets. Control crime. This is just another piece of bureaucratic busy work.	No plan edit was requested in comment
Most people know we need to be more responsible for our actions. There are consequences to the damage we've done to the world in the past several decades. We need to take action more quickly. We need less studies, less bureaucracy and more boots on the ground getting things done. We waste so	No plan edit was requested in comment

much money on redundant studies and plans, that we don't have the time nor money to execute some basic plans and fix the problems.	
Too slow. We need to make cleaning up our mess a priority. We can continue to gather data forever and it is valuable, but as a former Project Manager, I've learned that you need to find small or big wins along the way in order to make a difference. We need to take action now, 2035 is so far away and the damage is cumulative.	2035 goals were set by Steering Committee and recognize foundational work is needed to accelerate progress.
We need to address this now. It is urgent.	2035 goals were set by Steering Committee and recognize foundational work is needed to accelerate progress.
Don't start applying fees to everything we do. Give incentives, tax breaks for the actions you want to see. Homeowner solar projects, wind projects, electric vehicles, low yearly mileage usage, trash costs, water usage, etc.	No fees are proposed in the plan
Again use incentives, not heavy-handed requirements and fees.	This comment was written for the Building Solutions. Incentives are included in B-2 and B-3, B-1 is focused on codes, so inherently involves some requirements.
Ditto, Jeffco needs to lead by example, but incentivize at the individual, family, neighborhood, community and county levels. It won't work if we don't all have a common goal.	Incentives are included in EN-1, and the only requirements are building code-related.
RTD and our mass transportation system is poorly designed and executed. We need to meet people where they are. Our current services are often poorly designed and when users request changes they are ignored. There is no accountability. Once a year bike to work days are not enough. If someone has to change buses three times and the ride takes them three times longer than driving, people will not change. We need a first class transportation system with community input from users not big money or businesses that would benefit. The infrastructure needs to be there before change can happen.	T-2 includes an action step focused on the Transportation Master Plan update to address systemwide issues.
Jeffco has done well with Open Space development. We need to continue to develop these natural spaces. We need to keep those spaces healthy and have creative ways to maintain them. Wildfire mitigation has to be a priority. Repurposing and using tree cuttings from mitigation must be included. These trees are not waste, but a resource.	Addressed through EC-1 action items (e.g., expanding SLASH program)
Food waste is a huge issue in the world. We need to coordinate and facilitate the reduction of waste and participate in the redistribution to the those in need. In the way Victory Gardens took off in World War II, we need to have a similar	Addressed through Food & Waste solutions

pride and push in the name of saving our county, Colorado and planet. Land fills should not be a place we build big mountains of trash covered by a high-tech tarp and covered with dirt. These should be places to recycle and give individuals opportunities to reuse or repurpose those things that others may not need or see a reuse or purpose for. Think of things like paint, construction materials, furniture, broken but fixable items. We should first think of reuse, fix, or repurpose.	
Water is precious, but the cost of water does not reflect it's value. This is one area where I believe we undercharge. Water should cost more. Conservation should be rewarded with a lower bill. If you have more trees, gardens or positive emissions, you should get credits, if you have lots of water-sucking grass, you pay more. Waste should be more harshly punished. Rainwater or excess water should be captured with rain barrels (purchased at a discount through incentives/grants).	Proposed Edit: Add Action Item to <i>W-1: Water Conservation</i> to read: " Organize a group buy for rainwater collection systems. (Administer) "
For your opening At-A-Glance, ICLEI really likes your synopsis and want to use this as a model for other cities!	No plan edit was requested in comment
Overall this section is fantastic! I really love the cost piece by CWB, great equity focus and layout is great as well. Highlighting the relevant policies and highlighting other city works is also something i rarely see and will be borrowing to encourage others.	No plan edit was requested in comment
Overall, looking great so far! One side note- for the landfill gas portion, at ICLEI the amount of gas is required for completing an inventory. Would just maybe check if this info is already available.	No plan edit was requested in comment. Note that a new inventory was not completed for this project, but this approach should be noted for future GHG inventories with the consideration that the County does not own the landfill.
Overall looks fantastic! I really love the inclusion and focus on equity, the natural ecosystems portion and overall setting a high quality standard for other neighboring communities. This is a great CAP and I really enjoy the impact analyses portions as it outlines the implementation and feasibility of each action. Again, great work! - Hannah Miller, ICLEI	No plan edit was requested in comment
I applaud the County's efforts to set measurable goals around sustainability, building climate resiliency and improving emergency preparedness and response.	No plan edit was requested in comment
I appreciate that Preserving the Natural Environment is a priority solution in the Ecosystems section of the Plan, which calls for "preserving, protecting, connecting and enhancing open space, forests and natural areas". The draft	No plan edit was requested in comment

notes the benefit of carbon sequestration provided by healthy forests, wetlands and riparian ecosystems. Saving Bear Creek Lake Park from being flooded will bring us closer to this Goal.	
The first goal of the Plan is to reduce GHG (Greenhouse Gas) emissions. I would also like the benefit of carbon sequestration to factor more prominently into the Plan. We must do two things: reduce GHG emissions AND sequester the carbon that is already in our atmosphere. Preserving riparian ecosystems in places like Bear Creek Lake Park can be part of this solution.	- Carbon sequestration benefits are mentioned in the Ecosystems sector, but could be elevated. Proposed Edit: Edit description of <i>EC-1: Preserving the Natural Environment</i> to read: "Improve the resiliency of ecosystems in Jefferson County to better withstand climate change impacts and to provide key ecosystem services to climate change impacts – including flood and wildfire mitigation, carbon sequestration, and water quality management – by preserving, protecting, connecting, and enhancing existing open space, forests, and natural areas." - Carbon sequestration benefits of a natural feature like Bear Creek Lake Park is not expected to significantly impact either plan goal. Carbon sequestration potential for Jeffco is much greater through its forests and the Bear Creek Lake Park area is not located in a disproportionately impacted area of Jeffco according to the CDPHE Climate Equity Data Viewer.
The Climate Action Plan includes a section on Water which calls for Water Conservation and Diverse and Resilient Water Supply. Agreed. As we pursue resiliency in water supply, let's seek to minimize highly evaporative surface storage in places like Bear Creek Lake Park. We do not need more water storage which is out in the open and simply evaporates -- in addition to taking away key wildlife habitat. Keep Bear Creek Lake Park as she is. Her forests, wetlands and riparian ecosystems absorb carbon. They are a big part of the solution!	The scope of the plan did not include assessment of specific natural features like Bear Creek Lake Park, but rather focused on supporting existing planning efforts led by watershed associations and other organizations.

Great job getting on the ball on this. Keep the momentum, please. Buildings seem to be the #1 opportunity that the county has fairly significant control over. Putting the changes to code on new and existing buildings in place as soon as possible is critical.	No plan edit was requested in comment
Summary of comments from League of Women Voters: 1) On p.16-17, acknowledge that this is only tracking scope 1&2 emissions and future plans will include scope 3 (see email below); • see GHG protocol, of which cities such as SF and Boston are part, which shows how to address scope 3 emissions (see links below); • embedded carbon will balloon pie chart on p.16 when scope 3 emissions are added 2) Much of the action language is too passive; • e.g., F-3 should be "exploration [and securing] of funding"; 3) Better explanation of Pathways Table 4) There don't seem to be Key Indicators for equity actions; how will that be measured? 5) What is the County's role/commitment to evaluating, tracking, and reporting implementation and progress to the public? The Plan mentions the re-evaluating and revising of it in 5 years - hoping that it will be much more frequent, as that is nearly the halfway point in time of our 2035 goal.	1) The plan acknowledges that it does not include Scope 3 emissions on page 16 (see footnote). This is a comment practice because the County has limited influence over private consumption choices. This opportunity could be explored during the next countywide GHG inventory. 2) <i>Solution F-3: Exploration of Funding Sources</i> was intentionally written as more exploratory than definitive because of the County's current financial challenges. 3) Proposed Edits: Replace "Pathways" with "Scenarios". Edit the opening sentence of <i>What It Could Take To Achieve Our GHG Emissions Reduction Goal</i> to read: "To better understand what reaching our goal might look like, three scenarios were modeled using example actions with GHG emissions reduction potential. Each scenario provides different outcomes for those actions and how those outcomes relate to our goal." Add a sentence at the end that reads of this section (before the table) that reads: "This scenario exercise helped inform the development of the plan's climate solutions by identifying key action steps that need to take place to achieve the goal." 4) Proposed Edits: Add sentence to the end of <i>Equitable Engagement</i> that reads: "This also means identifying key equity indicators to equity considerations are being successfully implemented." 5) Proposed Edits: Edit second sentence in

	<i>Structuring Implementation - Lead Coordinator</i> to read: "This will include working with County staff to identify ways to integrate the plan's actions into existing operations and tracking and reporting progress annually." Edit second to last sentence in <i>Solutions-Based Approach</i> to read: "Along with annual reporting, a plan update is recommended in 2026 to evaluate progress and determine additional action steps."
1) On page 22, the graph showing the "climate equity score" is unclear. A more explicit explanation of what the climate equity score means would be helpful. 2) Is it possible to more clearly define the climate resiliency goals? As-written, they are quite vague and seem difficult to measure. 3) The action steps ("preliminary actions") under each of the goals only reach 2025. Is there a concrete plan in place to develop more action steps once these have been completed? Is there a way to guarantee that the plan will remain in place and that further action will be taken once there is a different makeup of the BCC? 4) FW-3: Waste Diversion (pg. 54) — is it possible to look into running another ballot measure for municipal waste/recycling? 5) FW-5: Landfill Gas Capture (pg. 56) — is there any possibility of a requirement that facilities capture and use landfill gas after the education component is completed? Is that something within the county's jurisdiction? 6) I like that the plan contains action steps for county residents who want to help the county achieve the CAP goals. However, most people aren't going to read the full plan. It would be helpful to create a separate page of the county or CAP website with all of the "Ways You Can Take Action" boxes. These might also be good for sustainability tips in the county's communications. 7) What actions have been taken to encourage municipalities within Jeffco to adopt similar plans? Is there anything within the plan to make this happen?	1) Proposed Edit: Edit the second paragraph of <i>Disproportionate Climate Impacts</i> (p. 22) to read: "Figure 6 illustrated which areas of Jefferson County are disproportionately impacted by climate change. The areas in darker purple have higher Climate Equity Scores, which means that these areas face greater environmental burdens (like air pollution) and may have population characteristics that impact their ability to cope with climate impacts (like income and education levels). Jefferson County can use this map to prioritize for climate action and investment." 2) The goals were set by the Steering Committee. But the plan could be more clear in how progress toward the goal will be measured. Proposed Edit: Add a sentence to the end of the <i>Our Climate Resiliency Goal</i> (p. 23) that reads: "Progress toward this goal can be measured by tracking climate action investments that have been prioritized in disproportionately impacted communities and by viewing the CDPHE's map of Climate Equity Scores on an annual basis to understand how those disparities may be changing."

	3) <i>Solutions-Based Approach</i> (p. 25) outlines a commitment to update the plan in 2026 to determine additional actions. 4) Jefferson County doesn't control municipal waste for cities/towns, so it's influence would be fairly limited and not contribute significantly to the plan goals. 5) The County does not have jurisdiction over private landfills 6) Proposed Edit: Create an appendix to the plan that combines all "Ways You Can Take Action" boxes to an easy handout. 7) Proposed Edit: Edit Solution <i>F-1: Increased Public Awareness about Climate Change</i> action step to read: "Convene staff from Jefferson County cities and towns to discuss and align on climate goals, plans, and initiatives. (Convene)"
Page 16 footnote states - "...Scope 3 emissions (occurring outside of county boundary, but as a result of activities taking place with the county boundary, such as waste generated in the county but disposed of outside the county) were not included." Since Scope 3 is a significant portion of Green House Gas contributions, please elaborate on why this is being excluded from this initial plan and consider noting when this will be included in the plan and metrics.	Proposed Edit: Edit footnote on page 16 to read: " These inventories were completed according to the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories, which requires quantification of Scope 1 emissions (from source located within the county boundary) and Scope 2 emissions (from grid-supplied electricity, heat, steam, and/or cooling). Scope 3 emissions (occurring outside of county boundary, but as a result of activities taking place with the county boundary, such as waste generated in the county but disposed of outside the county) are not required by this protocol and were not included. An inventory update was not part of this project scope.
B2, page 36. Recommend adding Consumer Protect Agency as an available resource/partner. Consideration - Many residents might be interested in taking advantage of things like solar panels but there's too many concerns about the	Proposed Edit: Add available resource to <i>B-2: Climate-Resilient, Efficient, and Healthy Homes</i> that reads "NREL Solar Consumer Protection

actual financial impacts and fair/legitimate offerings. The door to door approach on things like solar panels has plenty of deceptive sales pitches (similar to the roofing industry). Having some type of Consumer Protection partnership may help protect Jeff consumers and can accelerate adoption rates.	Resources" and links to https://www.nrel.gov/state-local-tribal/solar-consumer-protection.html.
EN5 Local Energy Workforce. Recommend adding 2 callout items in the preliminary actions steps: 1. Partnerships with Jeffco Schools to increase energy related trade curriculum and certification programs within their Tech programs at Warren Tech and/or other similar high school options. 2. Callout Trade Union partnerships as well. Electrons Union has a very good apprentice program These two items can help accelerate turning out skilled in demand resources into the energy and water related sectors 'new collar' workforce. Win/win for high school students with a acumen towards these types of jobs.	Proposed Edit: Edit action step of <i>EN-5: Local Energy Workforce</i> to read "Convene regional partners (e.g., NREL, Colorado School of Mines, Red Rocks Community College, Jeffco Public Schools, Warren Tech, Trade Unions) to identify opportunities to enhance countywide workforce development for energy efficiency and renewable energy industries. Opportunities could include increasing energy related trade curriculum and certification programs and expanding apprentice programs. (Convene)"
T-2: Multimodal Transportation Systems and Land Use Planning - Consider calling out Public Safety investment considerations unique to moving more people to alternative or mass transportation solutions. There will be a Law Enforcement and/or Safety component that has to be part of this plan for the community. A strong partnership and corresponding plan with these safety agencies will be paramount to sustained adoption beyond just the idea that it's better for the environment.	Proposed Edit: Edit action step of <i>T-2: Multimodal Transportation Systems & Land Use Planning</i> to read "As part of the Transportation Master Plan update: explore a financing mechanism to enhance local transit services that cross jurisdictional boundaries, explore opportunities to improve transit stops on public and private property, include implementation of complete streets policies, engage public safety agencies by raising their awareness as to the roles they can play in helping residents feel more comfortable using alternate modes of transportation such as cycling and walking, and emphasize sidewalk improvements for those with mobility impairments - in alignment with ADA policies. (Research/Strategize)"
1. Not sure which section is best but Jeffco has significant climate related impacts from the popular mountain traffic year round since it's the gateway into the mountains from the Denver metro area. I'd like to see something noted in this plan related to effective partnerships and strategic planning for mass	1) Proposed Edit: Add action step of <i>T-2: Multimodal Transportation Systems & Land Use Planning</i> to read "Work with surrounding communities, other mountain communities, and

transportation options to and from ski areas, and popular mountain destinations, etc. E-buses, clear rail, etc. might be part of this plan. This is not easy to sort out but I'd like to see something in the plan. 2. It's noted that this plan will be reviewed every 5 years. This is too long between reviews/updates. I'd recommend this plan be reviewed/reviews every other year or a maximum of every 3 years. 3. General other comment - this is a very good foundational plan. I'm very glad Jefferson County has made this initial investment in planning. I'd like to encourage more resources invested in making sure these items are successfully implemented.	Colorado Department of Transportation, to improve transportation options (e.g., electric buses) between the Front Range and mountain destinations. (Convene)" 2) Proposed Edits: Edit second sentence in Structuring Implementation - Lead Coordinator to read: "This will include working with County staff to identify ways to integrate the plan's actions into existing operations and tracking and reporting progress annually." Edit second to last sentence in Solutions-Based Approach to read: "Along with annual reporting, a plan update is recommended in 2026 to evaluate progress and determine additional action steps." 3) No action requested
Hello Jefferson County, Thank you so much for your hard work on the CAP draft. This is incredibly encouraging to see as a Jeffco resident, and as an environmental professional. While I agree with the actions that Jeffco is pushing to take on the climate crisis, there is significant data from the scientific community that points to Natural Climate Solutions (NCS) as a vital climate change mitigative strategy. NCS is projected to reduce global emissions via carbon sequestration and storage by 30 percent if implemented appropriately (Griscom et al. 2017). NCS is a major topic being discussed in the global scientific community as well. It has recently been cited in the latest Intergovernmental Panel on Climate Change (IPCC) and has been a driving topic at COP27 this month. NCS is similar to solution EC-2: Create Urban Systems that Mimic the Environment, but NCS analyses will help to identify a GHG emission reduction value. The current CAP draft does not value GHG potential from natural systems, but there are tools and resources that can help Jeffco do this. This will not only help to determine GHG reduction potential (so that you can include actual figures in Jeffco's climate goals), but this will also help Jeffco determine what types of natural systems and pathways should be prioritized. The Nature Conservancy (TNC) is an excellent resource, and they published a step-by-step guide for governments late last year (Leavitt et al.	This analysis was not part of the scope of this project

2021). I also understand that the local TNC office has a team that is working on evaluating how NCS can be implemented here in Colorado. I urge Jeffco to not only connect with TNC, but with the City of Boulder. Boulder is kickstarting the Cool Boulder campaign, which focuses on prioritizing nature-based solutions through city and community activism. Boulder is using citizen science to catalyze climate action. I am a graduate student from the University of Denver who has written a capstone report on implementing NCS at the state and local level here in Colorado. I have full confidence that Jeffco can make a significant difference by incorporating NCS into the CAP. I implore Jeffco to avoid reinventing the wheel with incorporating nature and ecosystem services into the CAP. NCS is a scientifically sound and robust way to analyze GHG reduction potential in a cost-effective manner. Please reach out to local NCS professionals to collaborate on NCS mitigation pathways. This collaboration is to our community's benefit: financially, socially, and environmentally speaking. Thank you for your time and attention. I look forward to seeing the progress that Jeffco will make on this very important topic. References: Griscom, Bronson W., Justin Adams, Peter W. Ellis, Richard A. Houghton, Guy Lomax, Daniela A. Miteva, William H. Schlesinger, et al. 2017. "Natural Climate Solutions." *Proceedings of the National Academy of Sciences* 114, no. 44 (October): 11645–50. DOI: 10.1073/pnas.1710465114. Leavitt, Sarah, Susan C. Cook-Patton, Laura Marx, C. Ronnie Drever, Vanessa Carrasco-Denney, Timm Kroeger, Diego Navarrete et al. 2021. "NCS Handbook." The Nature Conservancy. Accessed September 1, 2021. https://www.nature.org/content/dam/tnc/nature/en/documents/TNC_Natural_Climate_Solutions_Handbook.pdf.

Generally, I want to complement you for preparing a good plan. It is thorough, holistic, and well-written. One general comment: Jeffco is not in a vacuum when addressing climate change. There should be a section of the plan that addresses coordination with other metro governmental entities, particularly regarding transportation and water. To be successful in addressing climate change, Jeffco will need to coordinate metrowide as well as with the state. P.9: It is important to provide more discussion of the impact of methane and the need to control it (as well as the other GHGs). A priority should be given to reducing methane levels in the county, given how much of an impact it has on the climate. P.10: Another impact is to note the reduction the water reservoirs in the county.

- **Proposed Edit:** Add action step to *T-2: Multimodal Transportation Systems and Land Use Planning* to read: "**Continue to participate in DRCOG initiatives to reduce GHG emissions. (Convene)**".
- Coordination with other Colorado communities regarding water is reflected in *W-1: Water Conservation* action step that reads: "Implement draft 2023 Colorado Water Plan partner actions..."
- **Proposed Edit:** Edit sentence on p. 9 to read: "Carbon dioxide is the most

	commonly mentioned GHG, but there are others too, like methane which is more than 25 times as potent as carbon dioxide (U.S. EPA)." • Proposed Edit: Edit sentence on p. 10 to read: "Finally, these warm and dry conditions are leading to earlier snowmelt and runoff, and to a reduction in reservoir levels and decrease in water availability."
P.16 I thought Goal 1 was very good, providing a quantitative goal, and realistic. But I don't understand what it means to "while centering equity." That seems more vague. Goal 2 also was vague--how much climate risk is too much, how much climate risk are we going to reduce in the timeframe being addressed? Am I correct that all the GHG figures and charts include methane, not just carbon dioxide? P.21: I like including 3 different pathways in this table. But it's unclear to me the relationship of the pathways to all the subsequent solutions and actions, starting on p.28. Are the solutions and actions all intended to address Pathway 1? What happens if instead the county ends up going down Pathway 2? Regarding the home audit goal, I think it's just as important to state of those who did the audit, how many actually taken action to reduce/conserved energy. Another important action to include within the Energy Supply sector is how many homes install rooftop solar panels. Although I am in favor of a reduction in vehicle miles driven, how will this occur--particularly given the expected increase in population in Jeffco and the greater metro area? I think the goals for increases in the number of EVs sold in the dates are too optimistic. Unless the cost of EVs dramatically drops in the next couple of years, I don't see that large an increase in the sale of EVs. (What makes you so optimistic that this will happen?) P.22: The figure provided is very hard to read. It would help if readers had the ability to magnify the map, so they could see the specific climate equity scores for specific areas.	• Goal 2 is intended to be qualitative and guide equitable implementation (see equity considerations in each solution). The County can track risk disparity trends by annually referencing the CDPHE Climate Equity Map or similar source. • Yes, the charts include methane. All types of GHG emissions (including methane) were measured under a common unit (metric tons of carbon dioxide equivalent). • The Pathways table is intended to be informative to the development of solutions, so key indicators were chosen to inform the analysis. We recognize this is unclear so have proposed the following edits: Proposed Edits: Replace "Pathways" with "Scenarios". Edit the opening sentence of What It Could Take To Achieve Our GHG Emissions Reduction Goal to read: "To better understand what reaching our goal might look like, three scenarios were modeled using example actions with GHG emissions reduction potential. Each scenario provides different outcomes for those actions and how those outcomes relate to our goal." Add a sentence at the end that reads of this section (before the

	table) that reads: "This scenario exercise helped inform the development of the plan's climate solutions by identifying key action steps that need to take place to achieve the goal." • Proposed Edits: Zoom in on the more urban areas in Jeffco in Figure 6 to better illustrate the Climate Equity Scores.
P.24: Table 4 is excellent. I particularly like providing examples for each climate action. P.26: It's important that the text states "A plan update is recommended in 2026 to evaluate progress and determine additional action steps." But more detail needs to be provided here regarding the evaluation (see my other comments later).	Proposed Edits: Edit second sentence in <i>Structuring Implementation - Lead Coordinator</i> to read: "This will include working with County staff to identify ways to integrate the plan's actions into existing operations and tracking and reporting progress annually." Edit second to last sentence in <i>Solutions-Based Approach</i> to read: "Along with annual reporting, a plan update is recommended in 2026 to evaluate progress and determine additional action steps."
P.29+: Generally I thought the presentation of foundational and sector solutions in the plan was excellent. I liked that priority actions were identified, indicators and possible funding sources were provided, and that there were text boxes provided for each action on what individuals can do. Some of the solutions did not include specifics on GHG Emission Reductions Potential and/or, on key indicators. Will those be addressed in updates to the plan? Pp.29,31: It is not clear to me how "Emergency Preparedness and Response" is addressing climate change. Unlike most of the subsequent solution actions, this more of a reaction to climate change, and adaptive strategy. That should be noted in the text. (I agree this is important to do, and not just for climate change reasons.) P.31: Another possible indicator could be the % of homes with completed household emergency preparedness kits and plans.	• Only solutions that were estimated to have direct GHG emissions reduction potential were analyzed for their reduction potential. Many solutions, including <i>F-2: Emergency Preparedness and Response</i>, support climate resiliency which was part of the scope of this plan as demonstrated through Goal 2. This is indicated in each solution table under the "resiliency benefits" analysis. • Proposed Edit: Add key indicator to <i>F-2: Emergency Preparedness and Response</i> to read: "Number of residents that have participated in Jefferson County programs related to household emergency preparedness kits and plans."

P.36: Another possible indicator is the number of homeowners that take action to increase energy efficiency and/or install all-electric systems.	Because total action across the County is difficult to track, this is best reflected in existing indicator: "Participation in energy efficiency and electrification utility program", which can be tracked through utility data reports.
P.38: An action missing here is encouraging through incentives new and existing homeowners to install solar panels (and thus reduce GHG emissions). Another area missing in this whole topic is the use of wind as a renewable energy source.	• Solution EN-1: Local Renewable Energy Generation and Storage includes actions that promote existing incentives related to solar panels, as well as the organization of a group buy, which is expected to reduce the cost, providing further incentive for solar panel installation. • Wind is included in all solutions referencing renewable energy.
P.46: An action missing here is to encourage county residents to walk, hike, bike and carpool (e.g., provide incentives for the use of e-bikes). P.47: Another action would be to work with RTD to increase use of mass transit.	• Proposed Edit: Edit action step of T-2: <i>Multimodal Transportation Systems and Land Use Planning</i> to read: "Encourage community members to use multimodal transportation options by including multimodal transportation programs and benefits as part of F-1 outreach. (Educate)". • Proposed Edit: Edit action step of T-2: <i>Multimodal Transportation Systems and Land Use Planning</i> to read: "As part of the Transportation Master Plan update, collaborate with RTD to increase the use of transit (e.g., financing mechanism to enhance local transit services that cross jurisdictional boundaries, improvement transit stops on public and private property), include implementation of complete streets policies, and emphasize sidewalk improvements for those with mobility impairments - in alignment with ADA policies. (Research/Strategize).

The importance of preserving and protecting natural areas, as carbon sinks, should be stressed here. P.49: There also is a need for coordination with Jeffco Open Space, The Nature Conservancy, the Mountain Land Trust, and others, in the protection and preservation of additional natural areas in the county. Another possible action is to encourage homeowners to plant native trees. (And a possible indicator would be the number of trees planted by homeowners.)	• Proposed Edit: Edit description of <i>EC-1: Preserving the Natural Environment</i> to read: "Improve the resiliency of ecosystems in Jefferson County to better withstand climate change impacts and to provide key ecosystem services to climate change impacts – including flood and wildfire mitigation, carbon sequestration, and water quality management – by preserving, protecting, connecting, and enhancing existing open space, forests, and natural areas." • Proposed Edit: Add action step of <i>EC-1: Preserve the Natural Environment</i> that reads: "Work with partners (e.g., Mountain Land Trust, Nature Conservancy) to explore opportunities to preserve additional natural areas. (Convene)". • Native plantings are addressed in the actions of <i>EC-2 Create Urban Systems that Mimic the Natural Environment</i>.
P.54: Another action would be to encourage individuals (both homeowners and renters) to compost. Work with trash operators to pick up compost, as is done in Boulder I believe.	• Proposed Edit: Edit action step of <i>FW-3: Waste Diversion</i> to read: "Include waste diversion education and resources, including composting resources, reuse and repair opportunities, and opportunities resulting from Colorado's extended producer responsibility (EPR) bill as part of F-1 outreach. (Educate)" • The County does not control waste services, but action step in FW-3 focuses on the development of regional composting infrastructure, which would involve coordination with trash operators.

[NOTE: I couldn't include my comments by section after Food and Waste Solutions, so I've included a number of comments below.] P.57: Another action would be to encourage property owners to replace their blue-grass lawns with native plants, which would significantly reduce water consumption in the county. P.59: A possible indicator would be the change in reservoir levels. P.61: When I added up the percentages of all the solutions, including subtracting the +3% population growth, I came up with a 75% reduction, not 73%. How was this figure derived? PP. A2-A3: It is important to clearly define resiliency here and in the text. Although the glossary includes the term "climate resiliency," the term is used in the text to indicate "community resiliency--what's the difference? And what is meant by "Resiliency Benefit" in the solution tables? It would be helpful for readers to include a list of acronyms, which are plentiful in this plan)(e.g., CWPP, county HMP). What does "coder research in B-1" and "F-1 outreach" mean? A couple more general comments. The plan did not address the need for increased and more efficient power lines--the local grid needs to be made more efficient. With regard to hazard areas, this should be clear that we're only focused on climate hazard areas (e.g., floodplains, fire danger, landslides, not road safety issues). Under resources, look to see if the EPA, Soil Conservation Service, USDA and/or NERL, as well as other federal agencies, are possible funding sources. Finally, the plan should have a separate section that addresses evaluation of the plan and the need to revise/update it. The plan includes indicators for the climate action solutions. But what are the key criteria that need to be evaluated to determine if and when the overall plan (or specific solutions) need to be revised? It should be clear to readers under what conditions this plan will be revised.

- *W-1: Water Conservation* already includes an actions step related to turf replacement, so no edit is needed.
- **Proposed Edit:** Add key indicator in *W-2: Diverse and Resilient Water Supply* that reads: "**Reservoir Levels**".
- The population percent addition is already addressed in the 25% reduction of the "existing grid renewable energy". All the negative percentages added up together equals 73%. **Proposed Edit:** Edit Figure 9 for clarity.
- In this plan, community resiliency is used interchangeably with climate resiliency. **Proposed Edit:** update all uses of community resiliency in plan to either "**community climate resiliency**" or "**climate resiliency**".
- The resiliency benefits in the solutions tabs are defined on p. 28.
- All acronyms have been spelled out in an earlier part of the plan.
- Code research in B-1 and F-1 outreach refer to action steps in those solutions, representing coordination opportunities for solutions during implementation. **Proposed Edit:** When referencing B-1 and F-1, clarify that it is referencing action steps in those solutions.
- Grid improvements are addressed in *EN-3: Resilient Grid Infrastructure*.
- The term "hazard areas" is only used as key indicators, in alignment measurements included in the Jeffco Hazard Mitigation Plan.

	• <i>P. 25</i> includes a statement that the plan will be updated in 2026.
I am excited about the Climate Action Plan, and how comprehensive it is. Further, the plan is well-thought, well-organized, and anchored to currently available and projected federal and state funding. My only comment related to the approach to climate action: as JeffCo resident, I would like to see the county prioritizing actions that achieve climate goals while also increasing climate awareness without creating a significant economic burden on the population - for example, creating composting programs, facilitating e-bike adoption and the replacement of gasoline lawn mowing equipment with electric, and creating incentives for water conservation/xeriscaping project are actions that I'd like to see the county take on as soon as possible because these are popular programs that people get easily excited about, and have an immediate effect on improving our air quality, and reducing waste.	The majority of plan actions include efforts to minimize economic burden on residents. Many of the suggested actions already exist in the plan's solutions' priority action steps. However, e-bikes were not included in the plan. Proposed Edit: Edit action step in <i>T-1: Electric Vehicle Adoption</i> to read: "Collaborate with regional agencies on expansion of funding for programs that support e-bikes and low-emissions landscaping and snow removal equipment. (Fund)"
I applaud Jefferson County for its bold goals for overall GHG emissions reductions. In the context of EN-2, if enabling legislation is enacted by the state, a local "community choice energy" program, in which municipalities or counties contract for energy supply separate from Xcel Energy, could offer a means of accelerating utility-scale renewable energy generation.	The existing action step in this solution would enable the County to monitor and advocate for this type of legislation. No other role for the County was identified.
In the context of B2 and B3, adopting IECC 2021 for commercial buildings, and requirements for all-electric new construction for residential and commercial buildings, would be a useful incremental step in advancing emissions reductions from buildings. A recent analysis by the Southwest Energy Efficiency Project found that, with utility rebates, the total cost of ownership of new all-electric homes is lower than that of homes with natural gas space and water heating (https://www.swenergy.org/pubs/heat-pump-study-2022), as well as offering significant reductions in GHG emissions.	Building code updates, including the adoption of the IECC 2021 is included in <i>B-1: Climate-Resilient and Low-Carbon New Construction</i>.
I applaud Jefferson County for its ambitious goals to reduce GHG emissions. I hope the county is attentive to industrial GHG emissions, which were not broken out in the emissions inventory. Operations in Jefferson County such as Terumo BCT have negative consequences for the county's residents in terms of air quality (due to the emissions of ethylene oxide) as well as GHG emissions. The Front Range as a whole is already overburdened with ozone pollution, and I hope Jefferson County will take action to address other sources of harmful air pollution, which will also offer co-benefits in reduction of GHGs.	Industrial emissions were included in the County's past GHG emissions inventories that informed this plan.

I applaud the County's efforts to set measurable goals around sustainability, building climate resiliency and improving emergency preparedness and response. I appreciate that Preserving the Natural Environment is a priority solution in the Ecosystems section of the Plan, which calls for "preserving, protecting, connecting and enhancing open space, forests and natural areas". The draft also notes the benefit of carbon sequestration provided by healthy forests, wetlands and riparian ecosystems. I absolutely agree with the first goal of the Plan, reducing GHG (Greenhouse Gas) emissions. I would also like the benefit of carbon sequestration to factor more prominently into the Plan. We must do two things: reduce GHG emissions AND sequester the carbon that is already in our atmosphere. Preserving riparian ecosystems in places like Bear Creek Lake Park can be part of this solution. Sacrificing nearly two miles of riparian ecosystems along Bear and Turkey Creek (most of the forested regions in the Park) would reduce the bio-sequestration of carbon that is naturally occurring in the 500+ acres of the Park that are currently being considered for an expanded reservoir. Visit SaveBearCreekLakePark.org to learn more about what's at stake in BCLP and how to provide public comment on the Feasibility Study to the US Army Corps of Engineers. Throughout the CAP, equity is noted as a critical value. If the core of the Bear Creek Lake Park is inundated for intermittent water storage, environmental justice will be one of many costs. Lots of people do not have the time or money to travel to more distant parks and experience the benefits of natural places. Access to nearby nature and outdoor recreation also minimizes carbon emissions.	• Carbon sequestration benefits are mentioned in the Ecosystems sector, but could be elevated. Proposed Edit: Edit description of <i>EC-1: Preserving the Natural Environment</i> to read: "Improve the resiliency of ecosystems in Jefferson County to better withstand climate change impacts and to provide key ecosystem services to climate change impacts – including flood and wildfire mitigation, carbon sequestration, and water quality management – by preserving, protecting, connecting, and enhancing existing open space, forests, and natural areas." • Carbon sequestration benefits of a natural feature like Bear Creek Lake Park is not expected to significantly impact either plan goal. Carbon sequestration potential for Jeffco is much greater through its forests and the Bear Creek Lake Park area is not located in a disproportionately impacted area of Jeffco according to the CDPHE Climate Equity Data Viewer.
I appreciate the section on Water Conservation and Diverse and Resilient Water Supply. I would like to see a greater focus on water conservation in the CAP. Climate change is water change. As we pursue resiliency in water supply, let's prioritize more sustainable and less evaporative water storage solutions, such as Aquifer Storage and Recovery. As initially proposed, a significant expansion of the Bear Creek Reservoir in Bear Creek Lake Park would be relatively shallow and highly evaporative. The Feasibility Study being conducted by the US Army Corps of Engineers is still in the scoping phase. A number of alternatives are on the table. The forests, wetlands and riparian ecosystems within BCLP absorb carbon. They are part of the solution, unless they become consumed by intermittent shallow water storage and mudflats. Let's also prioritize opportunities to conserve and use water more efficiently as we build climate resiliency. It would be wonderful if the County could provide more educational opportunities	The scope of the plan did not include assessment of specific natural features like Bear Creek Lake Park, but rather focused on supporting existing planning efforts led by watershed associations and other organizations.

around conserving water, especially outdoor water use. A resource bank offering workshops and water-wise landscaping recommendations could help property-owners get started.

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