

Adapt Douglas County: A Climate Action & Adaptation Plan DRAFT

Welcome to the first public draft of Adapt Douglas County: A Climate Action & Adaptation Plan.

The planning process has intentionally prioritized community knowledge and the lived experience of our residents, it accounts for local conditions and draws from existing and previous municipal planning efforts, and is informed by a county-wide greenhouse gas inventory - all with the goal of creating a county-wide community-led climate vision.

As this plan is intended to compile priorities across the county, and given that Douglas County contains several distinct incorporated cities, townships, and neighborhoods, for those who join in this vision implementation may look unique from place to place. At the same time, joining in a county-wide vision allows opportunities for creative partnerships and large-scale impactful projects as we move toward implementation together!

Informing this plan draft: A snapshot

- 10 Community Coordinators collected local stories
- 115 community interviews conducted
- 554 community-wide surveys
- 11 focus groups held across the county
- 30 existing community plans studied
- 1st county-wide GHG inventory conducted
- Staff advisors from 5 governments
- Steering committee made up of community boards and agencies
- Numerous peer community climate plans consulted

We value your feedback on ways to make this community plan relevant, impactful, and collaborative! The draft is made up of the contents below. The Goals and Strategies section is where we recommend areas of focus and activity for our community. This is where we can be creative and collaborative!

A Changing Climate
Local Impacts
Greenhouse Gas Inventory and Targets
Developing this Plan
How to Read this Plan
Climate Action and Adaptation Goals and Strategies
Appendix 1: Definitions and Resources
Appendix 2: Community Plan Alignment

A note about Implementation:

The final draft of Adapt Douglas County will include implementation commitments, performance indicators, ways that community members can contribute, and measures that the County will maintain to stay accountable to you. We will also include an evolving list of collaborators and implementation partners - many of whom have been involved in the creation of this draft, and others who we look forward to joining in mutual benefits and impacts in the future. If you are part of a group or organization that would like to be an implementation partner, please include this in your feedback response, or reach out directly to climateaction@douglascountyks.org.

We Appreciate Your Feedback

Thank you for offering your time to review the draft of the plan. Your feedback contributes to a larger vision for climate change mitigation and adaptation within Douglas County. We welcome your feedback through this [survey](http://dgcoks.org/caapsurvey) (<http://dgcoks.org/caapsurvey>).



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A Changing Climate

Greenhouse gases (GHGs) are gases that collect in the atmosphere and trap heat from the sun, in the same way that glass panes trap the sun's heat in a greenhouse. This process is called the greenhouse effect and it is essential to sustaining all life on our planet. During the day, sunlight shines through the earth's atmosphere and warms the surface. At night, the surface cools and releases heat back into the air. Some of that heat is held by greenhouse gases in the atmosphere, making it possible for Earth's species to evolve and thrive in a hospitable climate.

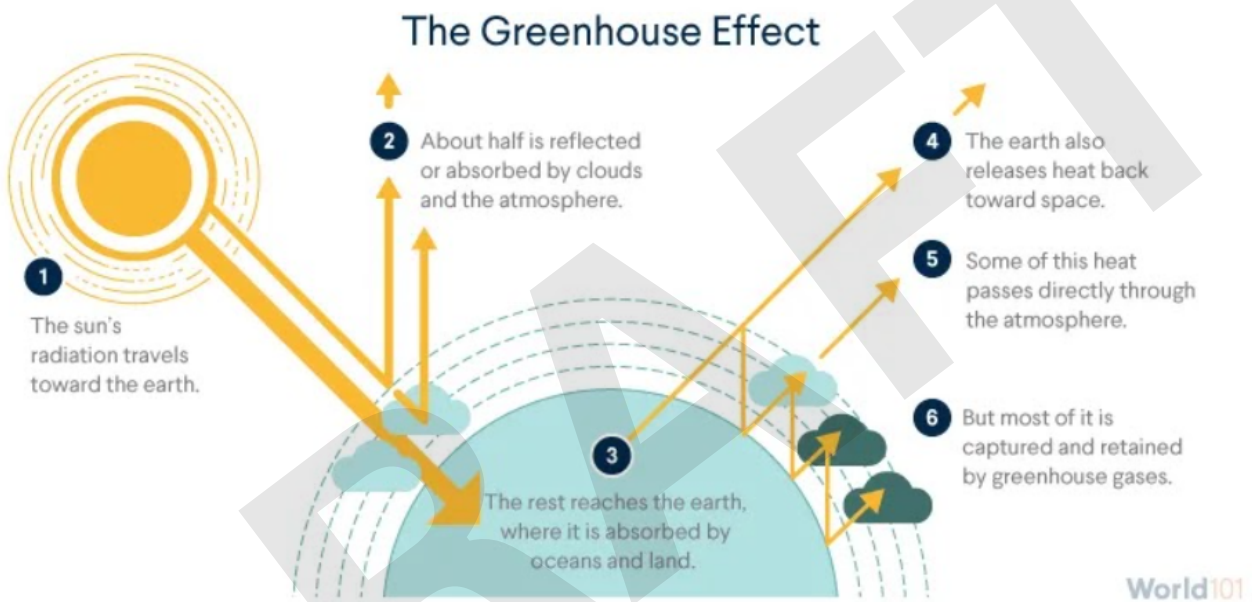


Figure #1. The Greenhouse Effect, from the [Council on Foreign Relations](#)

The greenhouse gases that contribute most to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). While they do occur naturally most of their emissions come from human-related activities. Activities that lead to increased greenhouse gas emissions primarily involve the production and combustion of fossil fuels, such as those that create electricity and heat, and make transportation and large-scale agriculture possible.

Since the dawn of the Industrial Revolution in the mid-18th century, humanity's ability to access and consume fossil fuels like coal and oil have led to exponential increases in the rate and amount of greenhouse gas emissions entering the atmosphere. With emissions intensely exceeding the rate of natural occurrence for more than a century, the amount of greenhouse gases present in the atmosphere has increased by almost half, and with it comes the increased capacity to trap heat in the Earth's atmosphere.

Figure #2 shows the relationship between carbon dioxide and average global temperature change since the late 1800's. As carbon dioxide accumulates in the atmosphere, average global temperatures increase. Climate scientists use this data to create models that project potential global temperature changes and potential future climate impacts.

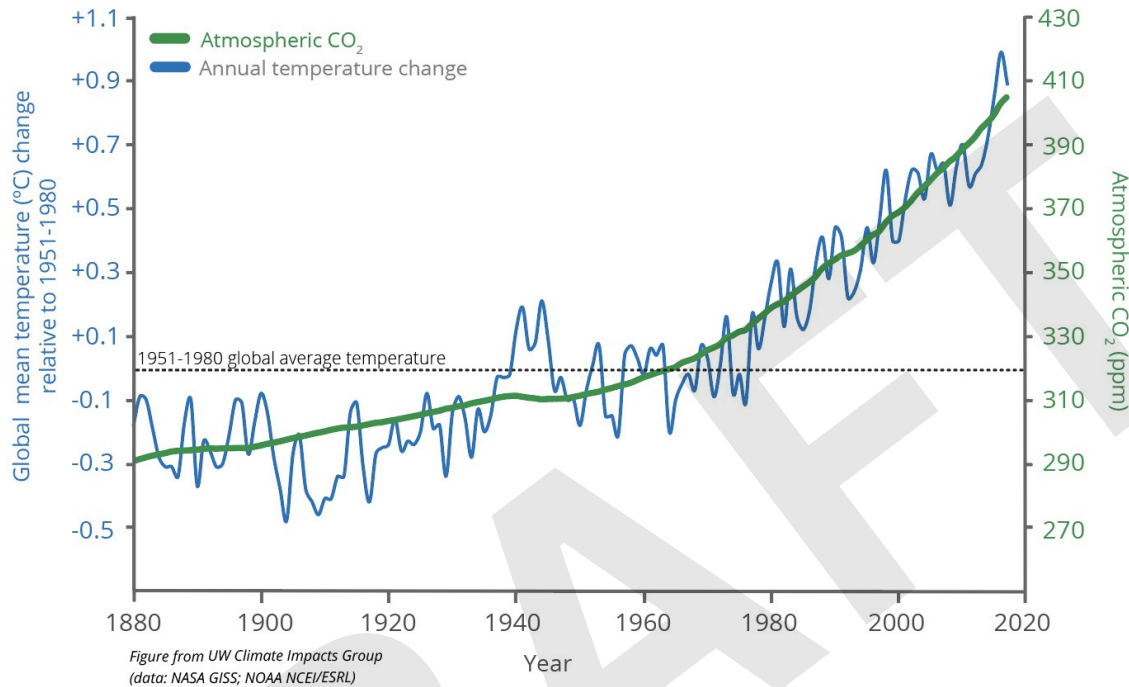


Figure #2. Atmospheric carbon dioxide and global mean temperature change 1880-2020, from University of Washington Climate Impacts Group

The International Panel on Climate Change (IPCC) is the leading organization on the science of climate change. The IPCC's 6th Assessment Report (2023) projects that continuing at current emissions rates could lead to future temperature increases of upwards of 5°C relative to pre-industrial levels. Meanwhile, models estimate that the greenhouse gases already trapped in our atmosphere will continue a warming trend resulting in an expected increase of 1.5°C in the near term. In order to maintain this lower threshold we must begin to urgently and rapidly reduce emissions.

Scientific observation and modeling - as well as lived experience - provide important data about the impact of even a small but consistent rise in global temperatures. Current scientific research indicates that with every increment of global temperature warming, the potential risks, impacts, and projected losses from climate change increase as well. Through the strategies recommended in this plan, Adapt Douglas County aims to prepare our community to avoid and withstand these challenges.

Local Impacts

“Kansas’s climate is changing. In the past century, most of the state has warmed by at least half a degree (F).”

-What Climate Change Means for Kansas, EPA, August 2016

A climate vulnerability assessment outlines a community’s potential to be impacted by, and capacity to respond to, the current and future risks associated with climate change. This plan calls on Kansas City’s 10-county regional Climate Risk and Vulnerability Assessment (CRVA), in which Douglas County was included (2022), Kansas’s Regional Hazard Mitigation Plan (2008), and EPA’s What Climate Change Means for Kansas (2014) to outline our regional climate risks and inform our targets, goals, and strategies.

Regional assessments warn that we can expect to endure the following:

- Temperature
 - Longer and hotter heat waves
 - Warmer summers and winters
- Precipitation
 - Greater rainfall intensity
 - More severe flooding
 - More frequent and intense drought
- Natural Hazards
 - Increased tornado activity
 - Increased winter storms
 - Higher wind speeds
 - Increased risk of wildfires

The CRVA (2022) identified a matrix to assess the risk level for each hazard facing our region now and in the future. The CVRA identifies flooding as the region’s highest risk, followed by heat and drought. Severe thunderstorms, tornadoes, and winter weather have moderate risk levels.

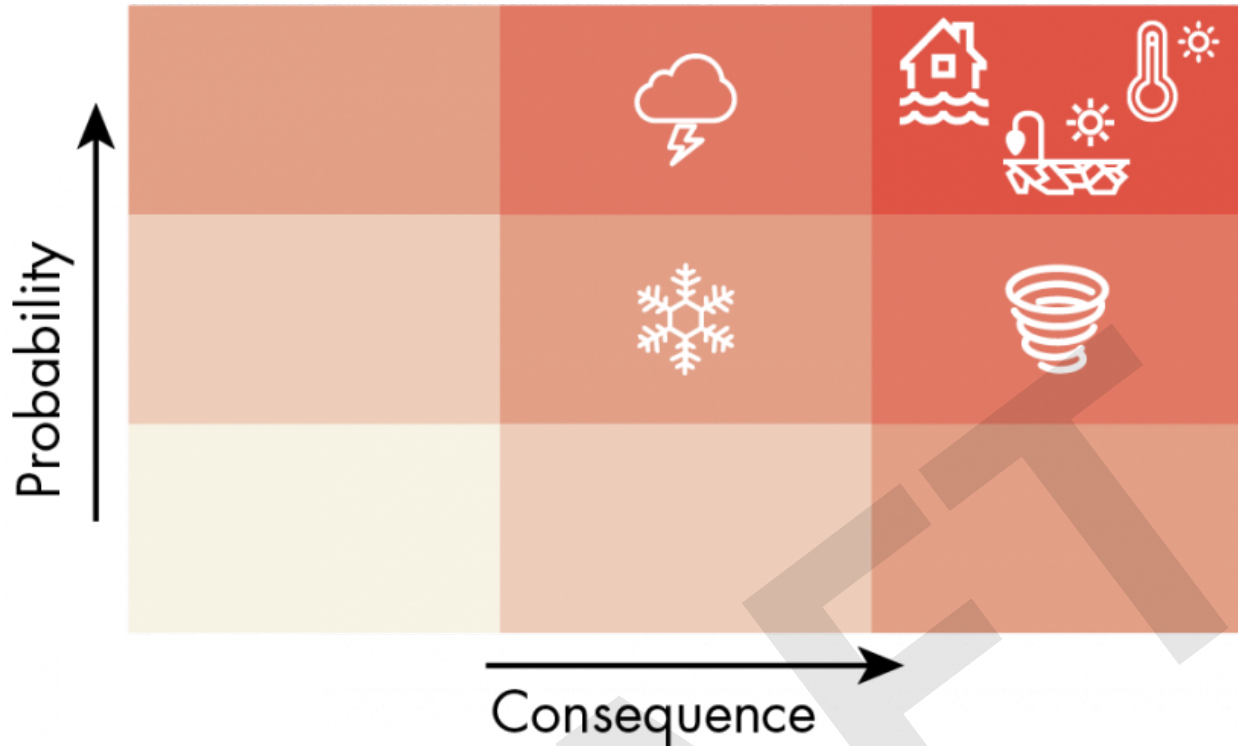


Figure #3. Risk matrix assessing the probability and consequence of each hazard from Kansas City's CRVA

Impacts of climate change are more than natural disasters. Stressors can be experienced through extended and consistent periods and become more of a normal condition in our community.

Examples of these impacts could include:

- Declining biodiversity
- Increasing demand for heating and cooling
- Increasing physical and mental health challenges
- Inundation of stormwater infrastructure
- Challenges to accessing daily needs in uncomfortable and dangerous conditions

The impacts of climate change will not affect all systems and people in the same way and to the same extent. Disproportionate vulnerability and exposure for individuals and communities are based on intersecting factors, including wealth, education, race/ethnicity, religion, gender, age, class, ability, and health status among others. Larger socioeconomic development patterns, historical and structural inequities, and unsustainable land use practices all contribute to disproportionate exposure to climate hazards and vulnerability for people and ecosystems.

¹ IPCC, A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change (IPCC), 2012, Determinants of Risk: Exposure and Vulnerability.

The 2022 CVRA included a regional socioeconomic vulnerability index relying on five indicators: non-white population, population below 200% of poverty, population under age 5, population over age 65, and renter occupied housing. As Douglas County moves into implementation of this plan, we should prioritize strategies by identifying and applying the most locally-relevant vulnerability indicators for our community.

In addition to impacts ranging from daily and disastrous, we can also anticipate cascading risks, where changing conditions will compound and become more challenging to manage and respond to over time. For example, warmer temperatures and drier summers will adversely impact soil moisture. Drier soils may lower the average flows of rivers and streams, impacting recreation, water supply and quality for agricultural producers and municipal utilities.

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Greenhouse Gas Inventory and Targets

In 2022, Douglas County enlisted the assistance of ICLEI - Local Governments for Sustainability USA, to develop an inventory of our county-wide greenhouse gas emissions. The inventory provides a baseline of Douglas County's community-wide emissions for the year 2021 by source, sector, and activities. The three primary sources of greenhouse gas emissions are: Residential Energy (28%), Transportation and Mobile Sources (27%), and Commercial Energy (26%).

EMISSIONS AT A GLANCE

- 1 Residential Energy**
28%
- 2 Transportation & Mobile Sources**
27%
- 3 Commercial Energy**
26%

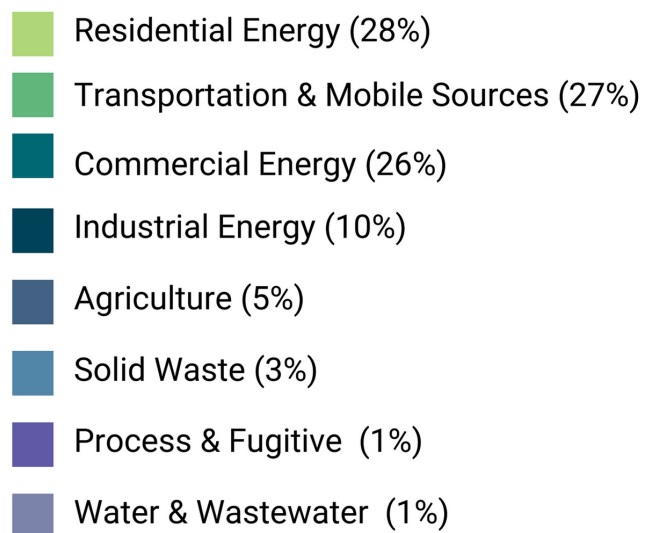
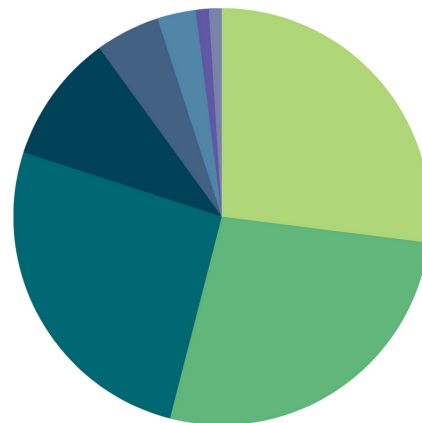


Figure #4. Douglas County's emissions broken down by sector.

² ICLEI GHG inventory

Inventory Results: Summary by Sector



| Sector | 2021 Emissions | Percentage of Total Emissions |
|--|----------------|-------------------------------|
| Residential Energy | 392,907 | 28% |
| Transportation & Mobile Sources | 371,917 | 27% |
| Commercial Energy | 357,568 | 26% |
| Industrial Energy | 132,046 | 9% |
| Agriculture | 73,613 | 5% |
| Solid Waste | 49,617 | 3% |
| Process and Fugitive | 19,776 | 1% |
| Water & Wastewater | 2,430 | 1% |
| Total Gross Emissions: | | 1,399,873 |
| Forests & Trees | -151,262 | |
| Total Emissions with Sequestration: | | 1,248,611 |

Figure #5. Details of Douglas County’s emissions broken down by sector. Emissions are measured in metric tons of CO₂e (MTCO₂e). Metric tons of carbon dioxide equivalent or MTCO₂e is a unit of measurement for greenhouse gases, it’s based on global warming potential of greenhouse gases. The global warming potential or GWP is the amount of heat the gas traps in the atmosphere compared to carbon dioxide (CO₂).

To identify the targets within this plan, we asserted incremental measures on strategies that are attainable on a county level, such as reducing vehicle miles, and increasing energy efficiency, rooftop solar, and electric vehicle adoption, and subtracted the carbon sequestration benefit from forests and trees (see figure #5). Forests and trees take in carbon from the atmosphere through photosynthesis, naturally aiding in emissions reduction. We then modeled the mitigation impacts relative to our local emissions. The resulting climate action target is a 38.5% decrease in county-wide emissions from 2021 levels, by 2030.

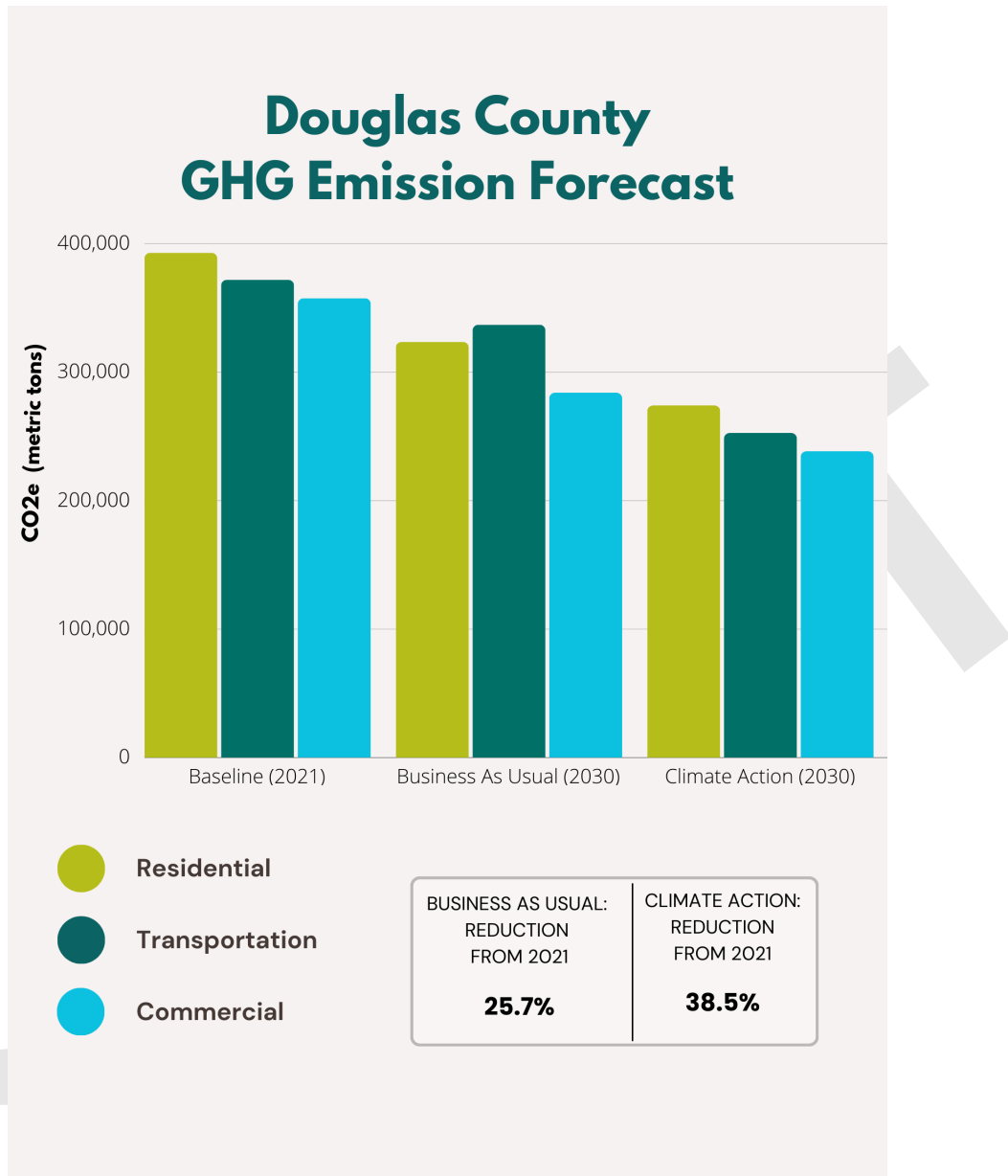


Figure #6. Douglas County's greenhouse gas emission forecast.

Figure #6 illustrates both our proposed Climate Action target and a projection of our emissions if we maintain Business as Usual, meaning our community takes no local actions to mitigate emissions. Even without action, community emissions are anticipated to fall 25.7% by 2030 as efficiency standards advance, our utility providers meet their stated goals for decarbonization, and assuming that we maintain our current level of carbon sequestering green space. The Climate Action scenario takes into account these existing goals and assets and further advances impact with our own local actions. All that said, it is critically important to acknowledge that even what we believe we can achieve in local Climate Action by 2030 will still leave our emissions substantially higher than what is recommended.

Using Science-Based Targets (SBTs), a calculation that takes into account a community's emissions and the shared global goal of keeping warming below 1.5°C, Douglas County's contribution should be a 60.4% reduction in county-wide emissions by the year 2030.

Action beyond the 38.5% reduction scenario is possible, but it will not be up to Douglas County alone. State advocacy and regional collaboration with other communities and our utilities will be necessary to more rapidly innovate and decarbonize our energy supply. Meanwhile, as our community advances local climate action, we will revisit our greenhouse gas inventory every three years, benchmarking progress and revising our goals to account for new opportunity and technology. Finally, 2030 is not the deadline for a resilient future. IPCC urges communities to continue working past 2030 targets toward the ultimate goal of carbon neutrality by 2050. This first iteration of Adapt Douglas County will not get us to 2050, but is intended to ignite action that will lead us to this global goal in the coming decades.

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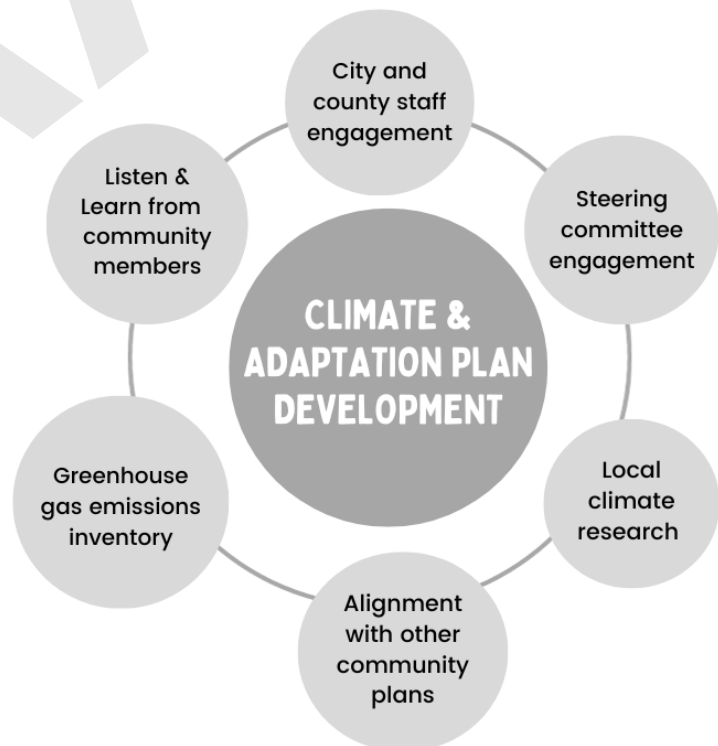
Developing this Plan

Douglas County’s approach to climate action and adaptation prioritizes community knowledge and lived experiences of our residents, accounts for local conditions, and draws from existing and previous municipal planning efforts, with the goal of creating a county-wide community-led climate vision.

It was Plan 2040, our community comprehensive plan, that officially charged staff to develop a climate change adaptation and mitigation plan, specifying that it not only reduce greenhouse gases, but also risk and exposure to hazards. Prior to declaring this county-level need, the City of Lawrence led our community in climate priorities, having adopted its own initial Climate Protection Plan in 2008, and passing Ordinance 9744 in 2020 setting renewable energy goals for the city.

Throughout this planning process, project staff met with government colleagues across the county to identify existing programs and projects that this plan could support. This cross-governmental communication further integrates climate-related work across departments, promoting organizational commitment and collaborative relationships, and fosters new opportunities for efficiency and innovation as we learn from each other.

From the outset, Douglas County sought to learn about diverse community values and goals across the county, recognizing that communities within Douglas County have unique experiences, needs, priorities, and assets. The experiences shared through our community listening directly informed the goals and strategies in this plan. We aspire to learn from each other and collaborate as a community as we approach implementing climate solutions together.



Plan Alignment

Many of the goals and strategies in this plan connect to other existing community plans and public activities. Aligning efforts often serves to strengthen and provide new mutual opportunities for collaboration and impact. A full list of aligned plans can be found in Appendix 2.

Committee Guidance

Two key committees offered direction and advice through plan development.

Staff Advisors representing multiple departments and leadership across five municipal governments provided touchpoints to their priorities, aligning commitments, and expertise, helping to guide the creation of a plan that is relevant and actionable.

Steering Committee members representing several community advisory boards, nonprofits, and agencies contributed their time to share the perspective and expertise of their organization in regard to climate priorities while elevating the experience of those they serve.

Community Engagement

Douglas County approached the community engagement process with these guiding values:

- Authenticity and Transparency: Listening to understand, sharing what we gather, and checking to make sure we get it right
- Equity: Centering those who are most impacted by the burdens of climate change
- Collaboration: Incorporating the input, lived experience, and expertise of community members and staff
- Relevancy: Connecting climate to people's everyday lives

Below is a summary of the significant components of our engagement process, and further details are available on the [Adapt Douglas County webpage](#).

Community Narratives

In 2021, Douglas County partnered with Climate + Energy Project and Sunrise Project to employ and guide ten Community Coordinators in recording the diverse climate change-related experiences of individuals throughout Douglas County. Following the guiding values for community engagement, this effort prioritized the voices of community members who face historic and current inequities and marginalization, have limited resources to adapt to the effects of climate change or both. The identities prioritized include Black, Indigenous, and People of Color (BIPOC), Spanish speakers, LGBTQIA2S+, elders, youth, disabled, low-income, unhoused people, community members in addiction recovery and the foster care system, as well as intersections of these identities. The result was 115 unique stories from life in Douglas County. For more information on the process and stories, please see the report: [Climate Action Plan Community Narrative](#).

Community-Wide Survey

In fall 2021, Douglas County residents completed a survey to share their top concerns in regard to climate stresses, including how those stresses related to their transportation methods, their comfort options in the winter and summer, and the health of their family and friends. Learning at this level of daily experience provided perspective in our effort to understand the most effective, accessible strategies for improving quality of life in a changing climate. For more information on the survey responses, see the [CAP Survey Summary Results](#).

While the results of the survey are important, analysis of submissions determined that creating opportunities for more listening and learning from wider geographies and demographic groups could contribute to a more representative county plan. More information on the demographic composition of survey respondents can be found on the [Survey Dashboard](#).

Focus Groups

A final component of initial community engagement focused on further learning from particular vocational and community groups.

Vocational focus groups prioritized Douglas County workers most impacted by climate change, while community groups were prioritized by identifying opportunities to convene community members representing more geographic areas and diverse demographics of the county.

A total of 11 focus groups were held, each having a similar format aimed at learning how the members gathered experience climate change—their priorities, practices, and barriers, and how they envision the future of Douglas County as the climate crisis continues. Local facilitators who share the vocation or identity of an invited group were enlisted to help lead a number of these gatherings, in order to help guide relatable and relevant discussion. A summary of our process and the input we received can be found in the [Douglas County Climate Action & Adaptation Plan Report on Focus Groups](#).

Priority Vocational Groups

Outdoor workers exposed to extreme heat and cold temperatures throughout the year

Frontline first responders assisting residents during/after extreme weather events

Human services workers providing services to individuals coping with issues exacerbated by extreme weather, including housing and health conditions

Agricultural producers impacted by the effects of sudden and seasonal weather changes that affect crop productivity and their livelihood

Priority Community Groups

Black, Indigenous, and People of Color (BIPOC) community members sharing perspectives on the climate impacts they uniquely experience. An additional stand-alone indigenous focus group was also held per recommendations from the Community Narratives.

Youth voices at the Boys and Girls Club representing the future of Douglas County

Unincorporated areas and municipalities of Eudora, Baldwin City, and Lecompton offering rural and county-wide perspectives

Community Emergency Response Training (CERT) participants, trained volunteers who watch for and prepare for hazards affecting their neighborhoods

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How to Read this Plan

The goals and strategies for this plan are broken down into four main sections:

Energy: Powering where we live, work, and play

Mobility: Moving around the community safely and efficiently

Living Systems: Balancing land uses, ecosystems, and natural functions

Thriving Community: Nurturing health and resilience across the county

In addition to goals and strategies for our community, each section will include associated targets and indicators, co-benefits, and equity considerations.

Targets and Indicators

As indicated in our greenhouse gas inventory, the ways we power our energy and transportation sectors have the most opportunity for emissions reduction. Therefore, emissions reduction targets associated with a variety of Energy and Mobility strategies can be found under these sections. Over time, we will be able to benchmark our progress in reducing emissions through implemented actions. In addition to greenhouse gas targets, we continue to work with ICLEI to develop other sets of indicators that will help us measure progress on numerous strategies in this plan. The full scope of indicators will be included in future drafts.

Co-benefits

Many strategies provide benefits beyond reducing greenhouse gas emissions and preparing for risks. For example, strategies at reducing emissions within our energy sector can ripple out to improve community health, air and water quality, and economic opportunity. By highlighting co-benefits within this plan we hope to discover intersections for new partnerships and innovative programming.

Equity Considerations

Many strategies within this plan will also highlight potential challenges, guidance, and/or opportunities to consider how to both remove barriers and avoid creating unintended inequities when implementing actions of this plan. Equity considerations are currently being developed in consultation with a local diversity, equity, and inclusion professional and will be present in future drafts.

How to find popular topics

If you are looking for one of these popular topics, here is where you can find them in the plan.

| Topic | Sections in the Plan |
|------------------------|---|
| Agriculture and Food | <ul style="list-style-type: none">• Living Systems• Thriving Community |
| Biodiversity | <ul style="list-style-type: none">• Mobility• Living Systems |
| Housing | <ul style="list-style-type: none">• Energy• Thriving Community |
| Local Economy and Jobs | <ul style="list-style-type: none">• Thriving Community |
| Land | <ul style="list-style-type: none">• Mobility• Living Systems |

Plan Implementation

The final draft of Adapt Douglas County will include implementation commitments, performance indicators, ways that community members can contribute, and measures that the County will maintain to stay accountable to you. We will also include an evolving list of collaborators and implementation partners - many of whom have been involved in the creation of this draft, and others who we look forward to joining in mutual benefits and impacts in the future. If you are part of a group or organization that would like to be an implementation partner, please include this in your [feedback response](#), or reach out directly to climateaction@douglascountyks.org.

Climate Action and Adaptation Goals and Strategies

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Energy

Powering where we live, work, and play

As we strive to mitigate and adapt to climate change, Douglas County must pursue opportunities for reducing our energy demand, enhancing our energy options, and reinforcing our energy infrastructure.

Stressors and Opportunities

What We Heard:

- increasing utility costs
- lack of energy efficiency
- interest in access to renewable energy
- distress about potential impacts of utility-scale energy

In Douglas County, residential and commercial energy needs are the first and third highest greenhouse-gas contributing sectors, respectively, and together they make up more than half of our total emissions inventory. Our community relies on a number of utility providers, including Evergy, Baldwin City, and Free Electric Cooperative for electricity, and Black Hills, Atmos Energy, and Kansas Gas Service for natural gas. Emissions from electricity sources are double those of natural gas sources for residences, and 2.5 times greater when it comes to commercial customers. With this significant portion of our emissions contributed by the electric grid, we have a substantial opportunity at mitigation by transitioning our energy needs to renewable electric sources. Strategies toward this transition should target several approaches and consider many facets: from rooftop to regional energy generation, conservation and innovation, affordability and reliability, public health, and ecosystems.

Reducing energy consumption overall not only serves to keep emissions in check as our community grows but also decreases demand for resources that contribute to our energy sector. As technology and policy encourage a transition of our energy grid to diverse and renewable sources, we also reduce the known externalities that accompany burning fossil fuels, such as air and water pollution, and health repercussions. However, we must remain aware that even renewable energy necessitates resource use, such as those associated with manufacturing and land use. Reducing overall consumption and managing demand can help our community more efficiently access a diverse and decarbonizing energy grid while balancing other assets and natural resources.

Between extreme weather hazards and increased daily usage during heat waves and cold snaps, we can anticipate more disruption and strain on the energy grid. The impacts of these incidents can range from inconvenient to life-threatening, especially for members of our community experiencing a range of vulnerabilities. But building resilience in the energy sector is more than preparing for disaster, it will require collaborative work with state and regional entities to advance our infrastructure for increasing demand that comes with smart growth in the community and a diversifying energy supply.

GHG Inventory and Reduction Targets

| Sector | 2021 Emissions (Mt CO2e) |
|--------------------|--------------------------|
| Residential Energy | 392,907 |
| Commercial Energy | 357,568 |

| Reduction Targets | Estimated emissions in year 2030 (Mt CO2e) |
|--|---|
| <p>Residential Building Efficiency Upgrades 5% of existing housing units per year retrofitted to be 20% more efficient 100% of new construction built to the latest energy codes to be 37% more efficient than previous codes</p> <p>Residential Rooftop Solar * 10% of countywide potential from 2021-2030</p> | <p>274,125 30% reduction</p> |
| <p>Commercial Building Efficiency Upgrades 5% of existing buildings per year retrofitted to be 20% more efficient 100% of new construction built to the latest energy codes to be 37% more efficient than previous codes</p> <p>Commercial Rooftop Solar * 10% of countywide potential from 2021-2030</p> | <p>238,453 33% reduction</p> |

* [Google Environmental Insights Explorer - Make Informed Decisions \(sustainability.google\)](https://www.google.com/environmentalinsights/explorer/)

Co-benefits

- Reduced cost burden from utility bills
- More affordable and accessible renewable energy
- Improved air quality, both indoor and outdoor
- Reduced respiratory and other health risks
- Comfortable homes
- Grid reliability
- Clean energy job opportunities

Equity Considerations

In development

GOAL 1: Reduce energy consumption while increasing access to renewable sources.

G1S1. Promote and pursue programs that prioritize energy conservation and cost savings.

1. Create a community energy resource hub that includes tools and procedures for reducing energy use and understanding energy options.
2. Develop and implement a local residential energy efficiency program that makes homes comfortable and safe, and bills more affordable.
3. Co-create energy programming with existing housing and utility affordability programs to further benefit those they serve.

G1S2: Adopt building codes that prioritize and incentivize accessible renewable energy generation and energy efficiency for residential, commercial, and industrial buildings.

1. Implement incentives for solar installation on commercial and industrial operations or new development, utilizing paved or building surfaces over green space where feasible and effective.
2. Develop and adopt a community-appropriate solar-ready ordinance for new construction.
3. Amend or adopt municipal codes to meet the most advanced standards of the U.S. Department of Energy Building Codes Program on an appropriate cycle.

G1S3: Increase renewable energy and energy efficiency in municipal and institutional facilities.

1. Prioritize energy conservation measures when budgeting and forecasting Capital Improvement Plans or similar policies.
2. Conduct a renewable energy feasibility study for municipal infrastructure to identify potential emissions-reduction impact and funding needs for implementation.
3. Identify and plan for ongoing energy efficiency improvements in municipal facilities.
4. Develop and adopt policy that establishes community-relevant criteria for sustainable building design, including considerations of renewable energy and efficiency technologies, for new buildings and renovations.
5. Foster relationships with local institutions to align and support emissions reduction and other resilience goals.

GOAL 2: Build resilience in the energy sector through innovative infrastructure and collaborative policy.

G2S1. Increase power outage resilience.

1. Work with utilities to inform planning of necessary infrastructure upgrades and enhancements, including transmission lines and storage, to support increasing demand on building and transportation electrification and to avoid power outages.
2. Expand advanced metering and monitoring technologies to better track outages and vulnerabilities.

G2S2. Advocate at the state level for local programs that decarbonize our grid, reduce energy demand, increase grid reliability, and keep rates affordable for all.

1. Participate in and partner with organizations that advocate at the Kansas Corporation Commission for increased, equitable renewable energy options that meet the needs of anticipated transportation and building electrification.
2. Work with regional policymakers and utilities, including engaging in the Integrated Resource Plan, to rapidly advance the most reliable, affordable, and clean grid supply and storage measures for our region's resources and demand.
3. Explore advocacy options at the state level that enable solar and wind power purchase agreements and community-owned solar.
4. Study solutions and barriers for Property-Assessed Clean Energy (PACE) in Kansas and relevant consumer protection measures.

Property-Assessed-Clean-Energy (PACE)

programs enable local governments to raise money to fund energy efficiency and clean energy projects for property owners.

Property owners can finance energy efficiency updates or renewable energy installations via financing districts that add a special property tax assessment to their property tax bills.

Mobility

Moving around the community safely and efficiently

As the second-largest contributor of greenhouse gas emissions in Douglas County, the transportation sector offers opportunity for emissions reduction through technology transitions and community planning, while accompanying co-benefits and adaptation strategies encourage a sense of community, accessibility, wellbeing, and more.

Stressors and Opportunities

What We Heard:

- stress on workers and infrastructure in extreme conditions
- access to daily needs or travel of essential goods in emergencies
- vehicle pollution impacting youth and other vulnerable populations
- travel discomfort, delays, or obstacles in extreme weather
- travel accessibility in hazardous or disruptive conditions

Mitigating emissions from transportation is so much more than vehicle efficiency or alternative fuels. By increasing the opportunities to consider multiple modes of travel - from walking and wheeling, to transit and sharing - and examining opportunities for connected design, we can reduce miles traveled by car, while also fostering neighborhoods that build community. Upon this foundation, Douglas County should also plan inclusively and equitably for electric vehicle charging access, making adopting new technologies increasingly possible for more residents.

While we work toward creating more connected options to access our needs, many community members will still contend with extreme elements on travelways. Seeking opportunities for more adaptable design that incorporates shade and absorptive elements to protect from excessive heat, wind, and water will help reduce harmful conditions for multi-modal travelers, and decrease burdens on infrastructure.

As our community approaches decisions about smart growth, connected and safe travel infrastructure will be essential, but it comes with costs. Priority should be made for design that functions in concert with natural systems and minimizes impacts on their ecosystem services of flood control, carbon sequestration, air quality, biodiversity, and more.

Traveling in good company:

This plan reinforces numerous community goals around safe and sustainable connectivity, including leadership put forth in: Transportation 2050, Safe Routes to School (Baldwin City, Eudora, and Lawrence), Countywide Bike Plan, Intelligent Transportation Systems Plan, Lawrence Pedestrian Plan, and more.

GHG Inventory and Reduction Targets

| Sector | 2021 Emissions (Mt CO2e) |
|---------------------------------------|--------------------------|
| Transportation & Mobile Sources Total | 371,917 |

| Reduction Targets | Estimated reduction in year 2030 (Mt CO2e) |
|---|--|
| Vehicles miles traveled (VMT) and electric vehicle (EV) adoption Reduction in VMT over time: 10% VMT by EVs over time: 16% | 252,727 32% reduction |

| Co-benefits | Equity Considerations |
|--|-----------------------|
| <ul style="list-style-type: none"> • Reduced individual and household transportation cost • Improved air quality, both indoor and outdoor • Accessibility and comfort of alternative modes of transportation • Community connection • Improved habitat for biodiversity | <i>In development</i> |

GOAL 3: Enable low-carbon modes of transportation while improving access to everyday needs.

G3S1. Ensure continued investment in creating safe, comfortable travel for walking, wheeling, and biking by increasing the transportation infrastructure budget for multimodal infrastructure.

1. Consider components of the “15-minute neighborhood” concept when updating long-range plans, while prioritizing accessibility.
2. Implement locally-relevant parking management that balances efficiency with community needs and accessibility.

G3S2. Create viable multimodal networks that serve residents and visitors across the county.

1. Incorporate alternate travelways or paths for walking and biking in the unincorporated areas.
2. Build capacity to support regional transportation initiatives, such as expanding demand-based intercity and commuter transit options.

G1S3. Enable the transition to electric vehicles (EVs) and electric bicycles (e-bikes).

1. Conduct EV readiness planning for countywide EV and e-bike charging infrastructure.
2. Develop an information hub for EV transition at the residential and commercial level.
3. Advance the transition of municipal fleets and necessary infrastructure to EV technology.
4. Promote incentives and rebates for the purchase of e-bikes.

G1S4. Explore ways to maximize traveler choices using shared mobility.

1. Assess the need, feasibility, and funding mechanisms for piloting a countywide microtransit model.
2. Continue to engage with partners such as the Senior Resource Center, Independence, Inc., and individual companies or industries in providing vanpool services throughout the county.
3. Increase awareness about the benefits and accessibility of shared mobility and encourage participation in existing programs.

The 15-minute neighborhood or city is a planning concept where community design provides residents with the basic amenities they need - shopping, schools, parks, healthcare - within a 15 minute radius by foot or bike.

Parking management includes a variety of strategies that create more efficient use of existing parking capacity, improve the quality of service for visitors, and encourage other accessible modes of travel.

GOAL 4: Build resilience in our transportation infrastructure.

G4S1. Adopt policies and design standards that encourage green infrastructure and nature-based solutions.

For example: incorporating trees and tree-lined corridors that promote shade; street grids with wind ventilation and light-colored surfaces to cope with urban heat; bioswales, rain gardens, and permeable surfaces that build resilience to flooding and drought.

1. Conduct an audit of heat-vulnerable neighborhoods and identify opportunities to incorporate protective shading and green infrastructure elements.
2. Establish and work toward a community-relevant goal for native, climate-adaptive tree canopy within urban areas and along multimodal travelways.
3. Seek opportunities to repurpose and restore underutilized paved surfaces to green space.
4. Select native, diverse, local genotype, non-varietal prairie, and tree species for stormwater and other public infrastructure.
5. Continue to audit and deploy bus stop enclosures for shade and protection.

G4S2. Develop asset management plans, or their equivalent, that account for increased weather-related stress on roads, bridges, shared-use paths, and sidewalks.

For example: weather such as drought, flooding, extreme heat, and snow.

G4S3. Enhance Resilience Throughout Project Planning and Development Processes

1. Prioritize sustainability measures when budgeting and forecasting Capital Improvement Plans or similar policies.
2. Incorporate nature-based solutions into public infrastructure, in order to protect our ecosystems and alleviate the impacts of climate change.
3. Examine planning processes early and often for opportunities to consult with communities and stakeholders most impacted in the development of public infrastructure.
4. Inventory roadways vulnerable to emergencies, such as flooding, and plan for alternative routes and communications

G4S4. Explore and implement use of Intelligent Transportation Systems (ITS) technology to monitor the integrity of transportation infrastructure and relay real-time data to ensure responsiveness and limit disruptions to users.

For example: real-time travel data; notifications of weather or event disruptions; and traffic signal adjustments for efficiency and demand.

Intelligent Transportation System (ITS) technology monitors roadways and transportation equipment at intersections for disruptions, and congestion, and helps mitigate flooding and other extreme weather impacts on transportation systems. By managing congestion, it also helps to reduce emissions from backed-up vehicles.

Living Systems

Balancing land uses, ecosystems, and natural functions

The ecosystems, land features, and waterways of Douglas County provide services and resources that inherently contribute to our climate resilience. From flood absorption to carbon sequestration, to rich soil and ample fresh water, the living systems we have thrived among should be valued, and our policies should prioritize these functions and assets.

Undeniably, our built environment has left a permanent mark on natural landscapes, and climate change is causing disruptions that will compound challenges both to their integrity and our dependence on them. From altered seasons and cycles, imbalanced hydrology, and declining biodiversity, the natural world will continue to experience irreversible change and loss in the face of incremental warming.

Woodlands, wetlands, prairie, and even regenerative agriculture, provide carbon sequestration as an ecosystem service. Douglas County's greenhouse gas inventory and targets account for the natural sequestration assets in our community. Our floodplains and wetlands provide degrees of natural protection from the rain events to which we will increasingly become vulnerable. However, these natural adaptations can only exist if we value, protect, and wisely steward our natural and open spaces. Pursuing strategies, partnerships, and priorities to enhance, conserve, and restore landscapes can increase our sequestration potential, enable systems to further protect our community, and allow biodiversity to thrive.

While this plan seeks to build on smart growth guidance and sensitive land protections asserted in Plan 2040, and will align with partnerships and protection tools identified in the forthcoming Douglas County Open Space Plan; it also uniquely urges our community to develop and adopt methods to account for invaluable ecosystem services as we approach decision making and community design, prioritize more nature-based solutions in our built environment's co-existence with the land, and study and seek opportunities to protect and restore ecosystem function both for its own sake and for the adaptation services provided to our community.

Stressors and Opportunities

What We Heard:

- declining biodiversity
- valuing ecosystem services
- impacts of development decisions on wetlands, agriculture, floodplains, prairie
- seasonal changes affecting plant, wildlife, and insect populations
- concern for water quality and access
- carbon capture and flood management from green space and wetlands
- centering lived and land-based knowledge
- improving soil health as a multi-benefit strategy

GHG Inventory and Reduction Targets

| Sector | 2021 Emissions (Mt CO2e) |
|------------------------|--|
| Existing Trees, 20% | -151,262 10.8% reduction in overall emissions |
| Target | Estimated reduction in year 2030 (Mt CO2e) |
| Maintain tree coverage | -151,262 15% reduction in overall emissions |

Co-benefits

- Nurtured biodiversity and habitat
- Increased resilience to flooding and extreme weather events
- Carbon sequestration through healthy vegetation
- Reduced urban heat-island effect
- Expanded and enhanced opportunities in the agricultural sector

Equity Considerations

In development

GOAL 5: Respect and protect the diverse ecologies found in Douglas County and their contributions to natural resilience.

G5S1. Identify and apply methodology that accounts for ecosystem services in land use and infrastructure decisions.

G5S2. Seek to alleviate and avoid unnecessary burdens of the built environment on sensitive ecosystems and hindrances to their natural functions.

1. Conduct noise and light pollution studies in key areas for impacts to wildlife and cultural practices such as stargazing.
2. Support vegetation management and integrated pest management practices and policies that enable native species to thrive and responsibly deter harmful invasive encroachment.
3. Raise awareness of the ecosystem services provided by wetlands, particularly within the Wakarusa River Valley. Seek partnerships and funding to restore and sustain functionality for all living species.
4. Increase burn ban awareness and information access to encourage burn safety and prevent wildfires.
5. Seek research partnerships to understand the localized impact of climate change on biodiversity.

G5S3. Foster partnerships and collaborate with multiple agencies and organizations to implement an Open Space Plan for unincorporated Douglas County.

The plan will prioritize innovative land management partnerships and sustainable funding structures; preservation of heritage areas and ecologically significant landscapes; equitable access to green space and health co-benefits; planning for green spaces within projected urban growth areas; connectivity between communities both human and wild; enabling both contiguous land preservation and waystations as appropriate.

GOAL 6: Protect quality and functionality of vital water resources and landscapes

G6S1. Improve and sustain a regional network of water protection and conservation efforts.

1. Build partnerships that support watershed planning, water quality protection initiatives, and runoff and erosion reduction.
2. Review development codes for opportunities to reduce the causes of erosion and runoff around waterways.
3. Select materials used for municipal infrastructure maintenance, such as snow melt, that have the least impact on water quality.
4. Enhance and develop water codes and programs that conserve water as a vital resource.

G6S2. Prioritize creative long-term conservation of floodplains through policy and strategic community partnerships

1. Update municipal codes to further protect floodplain both within and beyond the urban growth area.
2. Any municipal infrastructure necessary for urban growth or access should consider design alignment with natural systems and functions.
3. Integrate low-impact community-building assets such as accessible green space, recreation, and agriculture into floodplain conservation.

G6S3. Support and engage in state-level implementation of the Kansas Water Plan 2022 update and continue to promote proactive state-wide water policy thereafter.

GOAL 7: Build and protect healthy, carbon-sequestering soils and ecosystems

G7S1: Support innovative land uses that balance resilience, opportunity, and valued natural resources.

1. Enhance and promote resources that support public and private landowners in making informed decisions about the ecological value and functional potential of land assets.
2. Maintain solar and wind regulations that protect public health and safety, sensitive lands, and other natural assets.
3. Explore partnerships and funding to research and pilot varied forms and scales of agri-voltaic production.
4. Foster resources and networks for regenerative agriculture and other carbon-sequestering land management practices.

GOAL 8: Support a thriving, sustainable agricultural sector

G8S1: Promote climate-smart and sustainable agricultural practices, farming entrepreneurs, and agritourism businesses.

1. Build relationships and collaborations with agencies and partners addressing challenges and supporting innovations of local producers in a changing climate.
2. Enhance and expand programs, resources, and incentives that promote climate-smart and sustainable agriculture, including voluntary transition to practices that mitigate emissions and products that are resilient to local climate changes.
3. Develop or expand training programs, apprenticeship opportunities, and innovative land access partnerships that support aspiring farmers and farm entrepreneurs.

Climate-smart agriculture refers to farming and forestry operations that enhance productivity, build soil health, and sequester carbon while reducing emissions. Practices may include conservation tillage, cover cropping, agroforestry, and more.

Thriving Community

Nurturing health and resilience across the county

While reducing greenhouse gas emissions is the pivotal strategy for adapting to climate change, to nurture a thriving community we cannot neglect to address the threats to community health and prosperity that are already upon us as a result of accelerated emissions.

Stressors and Opportunities

What We Heard:

- impacts to asthma and seasonal allergies
- threats of too much water to safe housing
- extreme heat impacting people's ability to work and play
- psychological strain of living with climate anxiety
- access to basic needs during uncomfortable and dangerous conditions
- harm for the unhoused during extreme temperatures

Douglas County can anticipate increased occurrences of heat-related illnesses; exacerbated symptoms of asthma, allergies, and chronic respiratory illnesses due to altered bloom cycles; hindered ability to work and play outside, which affects our mental health and wellbeing; and the stress of living in a world of irreversible loss or the direct experience with natural disasters causing increased anxiety or posttraumatic symptoms in people of all ages. Further assessment of climate health risks particular to our community can help us collaboratively strategize to adapt to risks and improve quality of life.

Community preparedness reduces risks of unforeseen emergencies, empowers residents to participate in informed planning, and fosters community cohesion for rapid recovery. Emergency preparedness can take direct forms such as community training, resource hubs, flood protection, and more. We should also continue to elevate the value of indirect preparedness through self-sufficiency and resource sharing, which have the co-benefits of reducing production and travel of goods. Meanwhile, preventing and responsibly diverting waste in our community both reduces emissions, and decreases pollution and the need for virgin resources.

Supporting partnerships and advances in research and innovation, entrepreneurial opportunities, and job training and growth positions Douglas County to not only be self-reliant in community solutions, but to lead in the region. Moreover, individuals and families that are secure in their livelihood and daily needs will be better able to shield, prepare, and respond to mounting climate pressure.

Co-benefits

- Improved community health
- Equitable access to parks and other green spaces
- Sustainable access to healthy, local food
- Social cohesion among community members

Equity Considerations

In development

GOAL 9. Prepare our community to address increased and compounded health risks due to a changing climate.

G9S1. Consider climate impacts on public health in community planning

1. Conduct and maintain an Environmental Health Risk Assessment in collaboration with Lawrence-Douglas County Public Health (LDCPH), prioritizing locally relevant climate-related public health indicators.
2. Prioritize climate change as a consideration when updating the Community Health Plan.
3. Continue to support systemic change that reduces the community need for human services.

GOAL 10: Build awareness and address the psychological impacts of climate change.

G10S1. Foster networks to assess and address the impact of climate anxiety and stress on our community.

1. Encourage peer support among front-line workers, including first responders, human service professionals, and healthcare workers.
2. Consider capacity and support for climate anxiety and natural hazards in workplace policies and employee assistance programs.
3. Empower communities to implement climate action and resilience programs at the neighborhood level, and minimize barriers to participation.
4. Circulate organizational climate resilience toolkits that include self-assessment and strategies to deal with burnout.

GOAL 11: Increase community preparedness for climate hazards.

G11S1. Promote expansion and access to emergency preparedness education and resources.

1. Continue offering mini-Community Emergency Response Team (CERT) training and explore other formats that make components of CERT available to more people.
2. Expand upon efforts to provide disaster preparation materials and education through community centers, such as libraries.
3. Continue to improve emergency communication access to all residents, including those with language or technology barriers.
4. Consider increased climate risks and vulnerabilities when creating and updating organizational Continuity of Operations Plans (COOPs) that address access to essential services in the event of an emergency.

G11S2. Enhance and establish sufficient summer and winter relief centers throughout Douglas County.

G11S3. Enhance training programs and resources for outdoor workers to plan for and use best practices during high-risk weather.

G11S4. Ensure buildings are protected from the risk of increased precipitation.

1. Review and update municipal stormwater management guidelines to prepare for increasing frequency and intensity of precipitation.
2. Promote awareness of funding mechanisms, programs, and tools for flood protection, mold prevention, and remediation in homes.
3. Examine municipal building codes for healthy home standards, including moisture control, water systems, and more.
4. Assess the prevalence and projections for repetitive loss properties and develop a strategy to address the safety of residents and property.

The **Community Emergency Response Team (CERT)** program is a locally implemented initiative that trains volunteers with basic emergency preparedness and response skills. This includes light search and rescue, fire safety, medical operations, and incident command.

GOAL 12. Increase resilience through community food production, self-sufficiency, and food recovery.

G12S1. Support food recovery partnerships that redirect organic resources to people and animals.

G12S2. Sustain and enhance existing community gardening opportunities through programs such as Common Ground and Eudora Giving Garden.

G12S3. Promote, support, and expand educational opportunities and technical resources for residents to gain skills in food gardening, fruit production, raising animals, food preservation, and cooking.

GOAL 13. Systemically prevent, reduce, and responsibly divert solid waste.

G13S1. Comprehensively update the Douglas County Solid Waste Management Plan with attention to emissions-reducing prevention and diversion opportunities.

The plan will prioritize food waste source reduction and diversion, such as public or private composting services; innovative industrial energy recovery; accessible recycling options for residential and commercial customers; demand-appropriate, cost-effective, and environmentally sound solutions for electronics recycling, tire disposal, and refrigerant and household hazardous waste management; community education and outreach; and understanding our current waste trends through a characterization study.

G13S2: Develop and implement programs and policies that eliminate or limit single-use items.

GOAL 14: Foster and develop a resilient business community and equitable workforce.

G14S1. Collaborate to promote and expand existing economic development resources and efforts that help nurture, fund, and attract small businesses.

1. Encourage small business establishments in and around township centers that foster community and provide goods and services close to home.

G14S2. Strengthen a diverse and adaptable workforce prepared to address and deploy community solutions.

For example: composting services, solar installation, and green infrastructure construction

1. Develop partnerships with educational and research institutions, training centers, and other regional stakeholders to support career and workforce development.

G14S3: Take a regional approach to fully understand the risks of climate change to the local economy.

1. Convene economic development groups to evaluate risks and proactively plan for adaptation.
2. Invite the business community to participate in discussions around climate mitigation and preparedness to decrease risk to productivity and employment.

DRAFT

Appendix 1.

Definitions and Resources

Energy

- **Building energy codes** establish minimum energy efficiency requirements for new construction and renovations. Increased levels of insulation, better windows, and other measures deliver energy and dollar savings year after year for the life of the building. [Building Energy Codes Program | Department of Energy](#).
- **Community or neighborhood solar** is a utility installation that is owned by those who receive the power. It can benefit renters, participating homeowners, and businesses.
- **Integrated Resource Planning (IRP)** is a utility's assessment of their energy demand, supply, and the risks that could prevent them from meeting their customers' energy needs at reasonable costs.
- The **Kansas Corporation Commission** consists of three members appointed by the Governor. The Utilities Division establishes and regulates rates for public utilities, including electricity, natural gas, liquid pipelines, and telecommunications.
- **Property-Assessed-Clean-Energy (PACE)** programs enable local governments to raise money to fund energy efficiency and clean energy projects for property owners. Property owners can finance energy efficiency updates or renewable energy installations via financing districts that add a special property tax assessment to their property tax bills. [Property Assessed Clean Energy Programs - DOE](#)
- A **Power Purchase Agreement (PPA)** is an arrangement in which a third-party developer installs, owns, and operates an energy system on a customer's property. The customer then purchases the system's electric output for a predetermined period. A PPA allows the customer to receive stable and often low-cost electricity with no upfront cost, while also enabling the owner of the system to take advantage of tax credits and receive income from the sale of electricity. Though most commonly used for renewable energy systems, PPAs can also be applied to other energy technologies such as combined heat and power (CHP). For more, see: [Power Purchase Agreements - DOE](#)

Mobility

- The **15-minute neighborhood or city** is a planning concept where community design provides residents with the basic amenities they need--shopping, schools, parks, healthcare--within a 15-minute radius by foot or bike.
- An **Asset Management Program** establishes effective and innovative infrastructure investment and treatment strategies for the entire asset lifecycle - or simply the right treatment at the right time for the right reason. The objective of asset management is determining the appropriate preventative maintenance, rehabilitation, reconstruction, and stop-gap measures to keep municipal assets in the desired serviceable condition utilizing the most effective resources.
- For more on **Electrification and Electric Vehicle Readiness**, see: [Alternative Fuels Data Center: Electric Vehicle Readiness - DOE](#), [American Cities Climate Challenge's Electrifying Transportation in Municipalities - American Cities Climate Change](#)
- **Intelligent Transportation System** (ITS) technology helps monitor roadways and transportation equipment at intersections for disruptions. It includes alerting pertinent staff about systems that are malfunctioning so they can be fixed. It also includes alerting appropriate personnel about congestion due to an accident, roadwork, weather or other special event so the appropriate response can be taken, including diverting traffic to other roadways. This type of technology helps to mitigate the potential impacts of flooding and other extreme weather on our transportation systems. By managing congestion, it also helps to reduce emissions from backed-up vehicles. Emerging smart city technology may enable new sustainability applications, as well.
- **Microtransit** is a transit service that uses technology to provide on-demand or fixed-schedule rides with dynamic or fixed routing. It typically uses multi-passenger or pooled vehicles like vans, shuttles, or buses. It can complement or extend fixed route transit, especially in areas or times that are poorly served by regular transit.
- **Nature-based Solutions** are sustainable planning, design, environmental management and engineering practices that weave natural features or processes into the built environment to promote adaptation and resilience. These solutions use natural features and processes to combat climate change, reduce flood risk, improve water quality, protect coastal property, restore and protect wetlands, stabilize shorelines, reduce urban heat, and add recreational space. For more: [Nature-Based Solutions - FEMA](#), [Climate Action Plan for Resilience - USDOT](#)
- **The Small Town and Rural Multimodal Networks** guide is a design resource and idea book to help small towns and rural communities support safe, accessible, comfortable, and active travel for people of all ages and abilities.

Living Systems

- **Agritourism** is a form of commercial enterprise that links agricultural production and/or processing with tourism to attract visitors to a farm, ranch, or other agricultural business for the purposes of entertaining or educating while generating income for the farm, ranch, or business owner. For more: [AgriTourism - USDA](#)
- **Agrivoltaic production** is the use of land for both agriculture and solar photovoltaic energy generation. This system looks at agriculture and solar energy production as compliments to the other instead of as competitors. By allowing working lands to stay working, agrivoltaic systems could help farms diversify income. Other benefits include energy resilience and a reduced carbon footprint. For more, see: [Agrivoltaics: Coming Soon to a Farm Near You? - USDA Climate Hubs](#)
- **Climate-smart agriculture** consists of programs and services for farming and forestry operations that mitigate the impacts of a changing climate while building resilience within the operation. Programs include building soil health, sequestering carbon, reducing greenhouse gas emissions, and enhancing productivity and commodity marketability.
- **Emission sequestration**: existing trees within the county absorb CO2 and reduce overall emissions: [i-Tree Tools - Calculate the benefits of trees! \(itreetools.org\)](#) and [LEARN - ICLEI USA](#).
- For more information on **Environmentally Sensitive Lands** that are protected in Douglas County, see [Douglas County General Regulations and Standards](#)

Thriving Community

- **Climate anxiety** is a normal psychological response to the climate crisis and should not be seen as a disorder. It is best responded to with community-health-level interventions that serve to build connections. For more information on the **impacts of climate change on mental health**, see [Mental Health and Our Changing Climate](#) by the American Psychological Association.
- The **Community Emergency Response Team (CERT)** program is a locally implemented initiative that trains volunteers with basic emergency preparedness and response skills. This includes light search and rescue, fire safety, medical operations, and incident command.
- A **Continuity of Operations Plan (COOP)** addresses emergencies from an all-hazards approach that enables individual departments and/or agencies to perform their Essential Support Functions (ESFs) continue to be performed during a critical situation emergency or long-term disruption, which might last from 2 days to several weeks.
- For an example of an **Environmental Health Risk Assessment**, see [Monroe County 2023 Community Environmental Health Profile](#)
- Examples of **Neighborhood-scale Empowerment** include: CERT, Neighborhood Action Teams, Cool Neighborhood, and Neighborhood Associations.
- Relationships are important for physical health and psychosocial well-being. **Social cohesion** refers to the strength of relationships and the sense of solidarity among members of a community. [Social Cohesion - Healthy People 2030 | health.gov](#)
- **Universal Design** is the design of buildings, products, or environments to make them accessible to people, regardless of age, disability, or other factors.

Appendix 2. Plan Alignment

Energy

[Baldwin City Comprehensive Plan \(2008\)](#)
[City of Lawrence 2022-2026 Capital Improvement Plan Guidelines and Procedures \(2022\)](#)
[City of Lawrence Consolidated Plan \(2018\)](#)
[City of Lawrence Housing Market Analysis \(2018\)](#)
[Kansas City Regional Climate Action Plan \(2021\)](#)
[Lawrence Climate Protection Plan \(2009\)](#)

Mobility

[Baldwin City 2017 Master Plan \(2017\)](#)
[Baldwin Safe Routes to School \(2020\)](#)
[Coordinated Public Transit –Human Services Transportation Plan for Douglas County \(2016\)](#)
[Douglas County Plan 2040 \(2019\)](#)
[Douglas County Countywide Bike Plan \(2021\)](#)
[Douglas County Transportation Plan 2050 \(2023\)](#)
[Downtown Lawrence Plan \(2021\)](#)
[Eudora Safe Routes to School Plan \(2020\)](#)
[Kansas City Regional Climate Action Plan \(2021\)](#)
[Lawrence Bikes \(2021\)](#)
[Lawrence Complete Streets Policy \(2018\)](#)
[Lawrence-Douglas County Intelligent Transportation Systems \(ITS\) Plan \(2021\)](#)
[Lawrence Pedestrian Plan \(2022\)](#)
[Lawrence Safe Routes to School Plan \(2020\)](#)
[Lawrence Strategic Plan \(2021\)](#)

Living Systems

[Baldwin City Master Plan \(2017\)](#)
[Douglas County Community Health Plan \(2019\)](#)
[Douglas County Food System Plan \(2017\)](#)
[Douglas County Plan 2040 \(2019\)](#)
[Douglas County Transportation Plan 2050 \(2023\)](#)
[Eudora Comprehensive Plan \(2020\)](#)
[Kansas Water Plan \(2022\)](#)
[Lawrence Parks and Recreation Master Plan \(2017, Updates: 2019\)](#)
[Lawrence Strategic Plan \(2021\)](#)
[Open Space Plan \(forthcoming, 2024\)](#)

Thriving Communities

[City of Lawrence Consolidated Plan \(2018\)](#)
[Douglas County Food System Plan \(2017\)](#)
[Douglas County Health Equity Report \(2021\)](#)
[Douglas County Plan 2040 \(2019\)](#)
[Downtown Lawrence Plan \(2021\)](#)
[Eudora Comprehensive Plan \(2020\)](#)
[Kansas Homeland Security Region K Hazard Mitigation Plan \(2019\)](#)