



SHORT-TERM IMPLEMENTATION PLAN

6/24/2022

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INTRODUCTION

For each strategy in the Kansas City Climate Protection and Resiliency Plan (CPRP), a series of actions were identified through engagement activities including virtual and in-person workshops, online surveys, and one-on-one conversations. These actions were then prioritized by the Climate Protection Steering Committee based on alignment with climate goals, Intergovernmental Panel on Climate Change (IPCC) reports, current best practices, community input, political support, funding, staffing, and strategic opportunities. Through the plan review process, additional actions were elevated by the Climate Protection Steering Committee (CPSC) and therefore do not yet have implementation details identified. These additions are notated with a footnote in the title. Note that strategies and actions are not listed in order of priority, as all are necessary for achieving Kansas City's climate goals. CPSC will review request for proposals (RFPs) developed to support implementation of the CPRP.

This document provides details for these short-term actions to help Kansas City meet its 2025 emissions reduction goals. The intent of this document is to serve as an action plan to help the community stay on track and see the impact desired from this plan. This document also summarizes the expected the anticipated costs and staff time requirements to better inform Kansas City government (City) resource planning.

Funding considerations are provided for each Climate Action Section, acknowledging that Kansas City is income-challenged at both the level of City operations, where a relatively small population is taxed to support a very large geographic area, and at the level of individual households. Kansas City's average income is lower than the states, and great income disparities exist within the city. While these funding considerations are intended to offset these financial challenges, the City will still need to pay careful attention to high-impact, low-cost solutions and prioritize delivery of benefits to communities with the greatest need.

This document is intended to be a living document, updated from time to time to reflect new partnerships, shifting roles, and emerging opportunities - following the continuous improvement cycle shown in Figure 1. In 2025, the City should review the emissions reduction impact and the success of the identified action, then choose additional actions from Strategy Library: Options for Mid- and Long-Term Actions at the end of this document, or from additional stakeholder engagement, to create a work plan for the next five years.

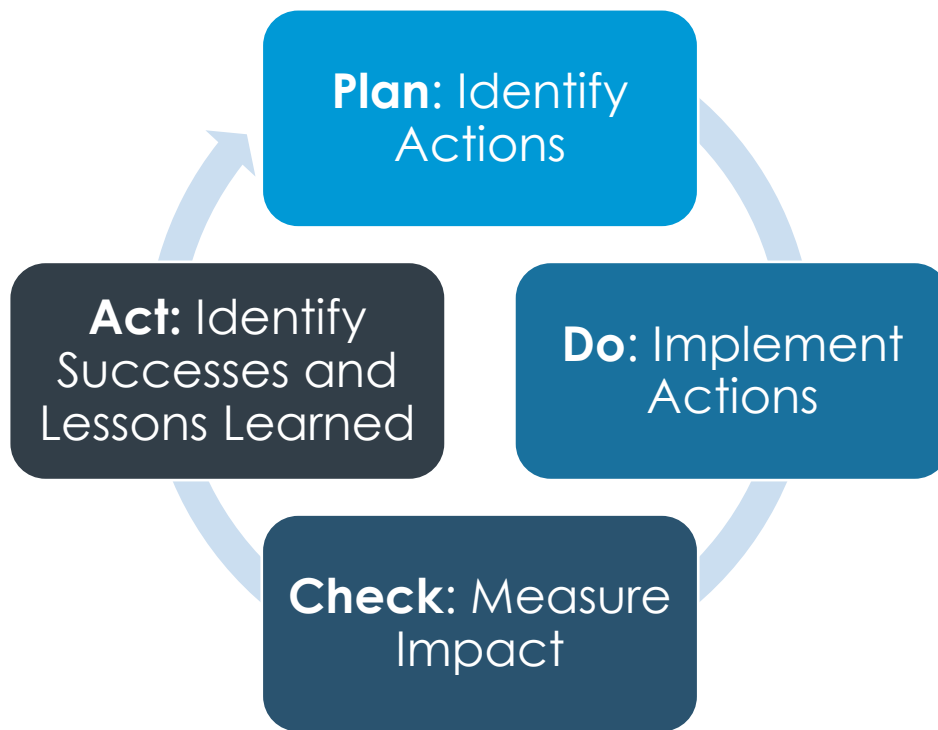


Figure 1: Continuous Improvement Cycle

CENTERING EQUITY THROUGHOUT IMPLEMENTATION

Immediately, this plan will charter an Environmental Justice Advisory Committee (EJAC), as recommended by CleanAir Now, to work alongside the CPSC and Office of Environmental Quality (OEQ) staff to guide action implementation. EJAC will be composed of residents in overburdened communities in order to hold the implementation of this plan accountable to Environmental Justice priorities.

OUR COMMITMENT TO HONORING THE LAND & ANTIRACIST PRACTICES

We acknowledge that Kansas City is located on the ancestral homelands of the Wahzhazhe (Osage), Kanza (Kaw), Jiwere (Otoe), and Nutachi (Missouria). We also acknowledge that there are other Tribal Nations with ties to this land, including many removed here from their ancestral homelands. Despite being forced to cede all land within the borders of the state and being prohibited from hunting or residing here, Indigenous People have an enduring relationship with this land. This land acknowledgment gives gratitude for the original caretakers and affirms the continuing relationship between Indigenous People and this land. Kansas City is committed to building reciprocity with the local native communities and seek their knowledge in climate mitigation and adaptation efforts. Through the KCMO Climate Protection and Resiliency Plan, we seek to work toward an equitable and resilient future as well as inspire Kansas City community members to honor and protect the land and resources.

Kansas City recognizes the presence of inequity in and throughout our systems, both historically and currently. We acknowledge the ways in which many of our past plans and policies have impacted or contributed to racial segregation, discrimination, and oppression on Black, Indigenous, Latin, and other historically marginalized communities. The climate crisis has only intensified these inequities, disproportionately impacting those facing systemic barriers toward living secure and healthy lives. This plan is built around equity because we believe that tackling systemic and institutional racism and climate change

work in tandem. We trust that implementation can be used to generate bold ideas that lead to a more just and regenerative city.

OUR EQUITABLE APPROACH

Kansas City is committed to equity and climate justice, which means we must acknowledge the systemic racism and other forms of discrimination that have conditioned many frontline communities to be vulnerable to socioeconomic and climate inequities. Through implementation we will prioritize those who have been disproportionately impacted by climate change.

To help implement this approach, the City will create an Environmental Justice Advisory Committee (EJAC) as recommended by CleanAir Now. EJAC will be composed of residents in overburdened communities, to hold the implementation of this plan accountable to Environmental Justice priorities. It is also recommended that the City leverage mapping tools to equitably implement plan actions (e.g., General Equivalence Mappings (GEMS)).



Figure 2: Equity Guiding Principles from Bryan Stevenson, Equal Justice Initiative



MOBILITY

MOVING AROUND THE CITY

This Climate Action Section focuses on reducing on-road transportation emissions within the city through better infrastructure, coordinated planning, and vehicle electrification, while working toward our vision for an equitable mobility future. The strategies and short-term actions outlined in this section are summarized in Table 1.

Our Equitable Future: Our mobility system will promote climate justice by enabling residents, regardless of ability, to move freely and to be independent. This includes increasing walkable, bikeable, and safe transit routes that support people with diverse abilities throughout Kansas City and making electric modes of transportation more accessible to everyone.

Table 1: Mobility Strategies and Actions

Strategy	Short-term Actions
Strategy M-1: Reduce vehicle miles traveled (VMT) through coordinated and planned development	<ul style="list-style-type: none"> Action M-1.1: Promote development patterns that prevent sprawl and support alternative modes of transportation, including road diets and traffic calming. Action M-1.2: Expand the use of green development practices.
Strategy M-2: Shift trips to bicycling and walking by expanding a network of safe and accessible routes	<ul style="list-style-type: none"> Action M-2.1: Continue applying the Complete Streets policy. Action M-2.2: Work toward a system of protected and connected bike lanes, greenways, and sidewalks, that use universal design principles. Action M-2.3: Invest 3% of City transportation infrastructure expenditures in safe bicycle and pedestrian infrastructure. Action M-2.4: Explore programs to provide electric micro mobility options for City employees, businesses, and residents.
Strategy M-3: Shift trips to transit by building efficient and effective transit systems and mobility hubs	<ul style="list-style-type: none"> Action M-3.1: Expand alternative transportation programs. Action M-3.2: Build out the Smart Moves transit and mobility system, including the network of mobility hubs. Action M-3.3: Initiate a public education and marketing program to promote alternative transportation programs. Action M-3.4: Improve reliability of existing transit and decrease wait times for public transit to make it comparable to driving a personal vehicle.
Strategy M-4: Reduce vehicle emissions from idling by reducing congestion and improving parking management	<ul style="list-style-type: none"> Action M-4.1: Improve anti-idling efforts citywide. Action M-4.2: Revise parking policies to promote other modes of transportation Action M-4.3: Develop a market-value parking strategy to reduce congestion and promote alternative transportation in high-use districts.. Develop a market-value parking strategy to reduce congestion and promote alternative transportation in high-use districts. Action M-4.4: Conduct local air pollution studies.

Strategy	Short-term Actions
Strategy M-5: Reduce vehicle emissions through low- and no-emission vehicles	<ul style="list-style-type: none"> • Action M-5.1: Promote community-wide electric vehicle adoption. • Action M-5.2: Expand the charging station network. • Action M-5.3: Electrify public-serving fleets. • Action M-5.4: Implement an electric vehicle car-share program in communities with lower income levels. • Action M-5.5: Electrify transportation network companies (TNC) and carshare fleets. • Action M-5.6: Reduce the use of polluting lawnmowers and other landscaping equipment.

FUNDING CONSIDERATIONS

To support implementation in the Mobility Climate Action Section, Table 2 summarizes potential funding sources to consider in implementing these strategies. While public funding plays a significant role in Mobility, other funding includes utility programs and rebates, philanthropic organizations, and federal or state grants or tax incentives.

Table 2: Mobility Potential Funding Sources

Strategy	Strategy Financial	Potential Funding Sources
M-1. Reduce vehicle miles traveled (VMT) through coordinated and planned growth	Public investment: Solution participants reducing trips save on fuel costs without bearing the capital investment directly	<ul style="list-style-type: none"> • Infrastructure Investment and Jobs Act Funding • City annual budget for Planning, Zoning and Economic Development • EPA Smart Growth Grants (future opportunities)
M-2. Shift trips to bicycling and walking by expanding a network of safe and accessible routes	Public investment: Solution participants reducing trips save on fuel costs without bearing the capital investment directly	<ul style="list-style-type: none"> • KC Bond Program – Complete Streets Implementation • City annual budget for Transportation and Infrastructure
M-3. Shift trips to transit by building efficient and effective transit systems and mobility hubs	Public investment: Solution participants reducing trips save on fuel costs without bearing the capital investment directly	<ul style="list-style-type: none"> • Metropolitan Energy Center (MEC) technical support to help organizations procure grants or other funds • Mid-America Regional Council (MARC) Transportation Improvement Program
M-4. Reduce vehicle emissions from idling by reducing congestion and improving parking management	Public investment: Solution participants reducing trips save on fuel costs without bearing the capital investment directly	<ul style="list-style-type: none"> • City annual budget for Transportation and Infrastructure

Strategy	Strategy Financial	Potential Funding Sources
M-5. Reduce vehicle emissions through low- and no-emission vehicles	Cost Savings: Generally, fuel cost savings pay for the investment, but Return on Investment (ROI) varies based on vehicle type and use patterns.	<ul style="list-style-type: none"> • Every free electric vehicle advisory services • Evergy Clean Charge network to provide public charging • Missouri Volkswagen Trust – funds to reduce emissions from diesel fleets, replace or repower school busses, support EV charging stations, etc. Based on a 10-year plan for awarding over \$41 to projects by Oct 2027 • Federal electric vehicle tax credit • Metropolitan Energy Center (MEC) technical support to help organizations procure grants or other funds

SHORT-TERM ACTIONS

Priority actions identified by community stakeholders for the years 2022-2025 are detailed by strategy below.

STRATEGY M-1: REDUCE VEHICLE MILES TRAVELED (VMT) THROUGH COORDINATED AND PLANNED DEVELOPMENT

Ensure that new developments are designed to reduce the distance residents need to travel to reach their workplace and necessary amenities such as grocery stores and medical clinics, as well as provide easy access to public transit. Development planning should reduce the need and opportunity for commercial traffic to occur where people live and play; all improvements must be deliberate in avoiding green gentrification.

Action M-1.1: Promote development patterns that prevent sprawl and support alternative modes of transportation, including road diets and traffic calming.

Use codes, permits, taxes, and other mechanisms to require or incentivize infill development, accessory dwelling units, transit-oriented development, and other development patterns that build density in key areas of the city, support alternative modes of transportation, and avoid sprawl. This may include reduction or elimination of parking minimums within the city.

Action M-1.1	Details
Implementation Leader	City Staff (Planning & Development)
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Public Works) • Kansas City Area Transportation Authority (KCATA) • University of Missouri-Kansas City Center for Neighborhoods • Neighborhood Organizations • Mid-America Regional Council (MARC)
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Consider targeting neglected commercial zones, to transform abandoned or misused buildings into businesses that will provide income and opportunities for the neighborhood.

	<ul style="list-style-type: none"> • Consider the greater need for redevelopment in historic neighborhoods. There are many more historic homes in need of renovation in Central Kansas City compared to newer development in the Northland. • Take preventative measures against development that will lead to gentrification, prioritizing affordability and reinvestment into the community, as well as designs that fit the character and context of the neighborhood. • Incorporate community engagement into large-scale development, whether residential or commercial.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Leverage learnings from MARC’s Planning Sustainable Places program. • Engage neighborhoods to build support and help determine the best type of development for their area. • Determine the best mechanism(s) for requiring and/or incentivizing new development patterns, based on engagement results. • Coordinate with Action M-4.1.

Action M-1.2: Expand the use of green development practices.

Comprehensively evaluate opportunities to incorporate trees at transit stops, tree-lined corridors, bioswales, and other types of green infrastructure into the development process - to increase the use and impact of green development practices.

Action M-1.2 Details

Implementation Leader	<ul style="list-style-type: none"> • City Staff (Public Works) • City Staff (KC Water)
Supporting Parties	<ul style="list-style-type: none"> • Kansas City Area Transportation Authority (KCATA) • Neighborhood organizations (e.g., Northland Neighborhoods Inc.) • My Region Wins! • Neighborhood Organizations • Sierra Club Missouri Chapter • Missouri Department of Transportation
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Leverage land bank properties to empower neighborhoods to support implementation. • Incorporate community engagement in the design process to ensure development fits the character and context of the neighborhood. • Prioritize restoring and revitalizing vacant lots in areas with lower incomes, to increase community health benefits and environmental stewardship. • Consider universal design practices in development.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Continue partnership between Public Works and KC Water to implement green infrastructure when adding bike lanes. • Evaluate other public and private property development processes for opportunities to incorporate green infrastructure. • Work with Missouri Department of Transportation to reduce environmental harms related to highway development.

STRATEGY M-2: SHIFT TRIPS TO BICYCLING AND WALKING BY EXPANDING A NETWORK OF SAFE AND ACCESSIBLE ROUTES

Adopt and implement the Bike KC Master Plan and update and implement the Walkability Plan and KC Trails Plan, to ensure all communities have equal access to safe bike and walk infrastructure. Bicycle commuting has been shown to support the local economy through jobs as well as health care savings for people who choose active transport (Flusche, 2012)

Action M-2.1: Continue applying the Complete Streets policy.

Continue implementing the Complete Streets ordinance to improve mobility for a range of complementary uses, including transit, bikes, pedestrians, and cars. Consider adopting a goal of at least 40% of city streets considered “Complete” by 2040.

Action M-2.1	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (Public Works)
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Planning & Development) • City Staff (KC Water) • The Whole Person • Kansas City Area Transportation Authority (KCATA) • Spire • Evergy • BikeWalkKC
Timing	<ul style="list-style-type: none"> • Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> • Consider users of all abilities. • Prioritize neighborhoods without existing sidewalks, considering safety measures and universal design. • When designing Complete Streets, ensure a “safety fence” is created for pedestrians and bicyclists (e.g., parked cars buffer bike lanes, which buffer sidewalks).
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Create accessibility to bikes and provide community education along with the construction of bike lanes, supporting a positive perception of bicycling in neighborhoods that may view it as a negative. • Prioritize protected bike lanes to encourage “interested but concerned” cyclists to bike. • Work with Spire, Evergy, and KC Water to coordinate street improvements with aging infrastructure replacement. • Create and use new performance measures for transportation projects to ensure they are on the right track.

Action M-2.2: Work toward a system of protected and connected bike lanes, greenways, and sidewalks, that use universal design principles.

Continue efforts (e.g., planning, program development, projects, education, advocacy) that promote protected and connected bike lanes, greenways, and sidewalks, using universal design principals to increase access for all users. Continue to implement the Vision Zero strategy of adding 15 miles of protected bike lanes each year while maintaining existing bike infrastructure and enhancing visibility of existing multimodal transit options through signage and other wayfinding methods.

Action M-2.2	Details
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Implementation Leader	BikeWalkKC
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Public Works) • The Whole Person • Neighborhood organizations
Timing	<ul style="list-style-type: none"> • Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> • Consider users of all abilities and ages. • Prioritize improvements on sidewalks in disrepair that are difficult for wheelchairs, strollers, and other users to navigate. • Ensure bike routes connect and lead to areas outside of tourist centers and downtown, considering opportunities to revitalize older areas of the city such as historic and industrial districts, and safer routes to schools in areas with lower incomes.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Adopt Bike KC Plan and update regularly. • Procure funding for community engagement, to provide education and support the development of new programs and projects. • Ensure that new efforts incorporate e-bikes, align with transit options, and include transportation amenities (e.g., bike repair). • Consider setting mode share targets.

Action M-2.3: Invest at minimum 3% of City transportation infrastructure expenditures in safe bicycle and pedestrian infrastructure, including end of trip facilities.

To ensure continued investment in creating safe, quality travel for pedestrians and bicyclists, set aside a minimum of three percent of the transportation infrastructure budget for pedestrian and bicycle infrastructure, including public restrooms, parking, and other end-of-trip facilities.

Action M-2.3 Details

Implementation Leader	<ul style="list-style-type: none"> • City Staff (Public Works)
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Planning & Development) • BikeWalkKC • KC Drawdown
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Consider users of all abilities and ages. • Ensure design safeguards bike lanes and sidewalks from cars, considering the perception of safety.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Incorporate the three percent set aside during planning into the 2023 budget. • Ensure that new infrastructure is connected to community destinations, aligns with transit options, and includes transportation amenities (e.g., bike repair). • Regularly evaluate if additional funds are needed.

Action M-2.4: Explore programs to provide electric micro mobility options for City employees, businesses, and residents.

Expand on the City's 2019 scooter and e-bike pilot program as a way to provide additional modes of zero-emission transportation for City employees, residents, and businesses.

Action M-2.4	Details
Implementation Leader	<ul style="list-style-type: none">• City Staff (Public Works)
Supporting Parties	<ul style="list-style-type: none">• Bird• RideKC Bike & Scooter• Spin
Timing	<ul style="list-style-type: none">• Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none">• Continue prioritizing LifeX areas.
Implementation Steps or Considerations	<ul style="list-style-type: none">• To be determined.

STRATEGY M-3: SHIFT TRIPS TO TRANSIT BY BUILDING EFFICIENT AND EFFECTIVE TRANSIT SYSTEMS AND MOBILITY HUBS

Expand public transit infrastructure to provide low-cost, reliable, convenient transportation for all residents, prioritizing east/west transit lines. To ensure success of this strategy, ensure that public transit workers are valued and paid fairly. Investing in high-quality public transit has been shown to support the local economy, with about \$5 in economic return for every \$1 invested in public transit (Economic Development Research Group, 2020).

Action M-3.1: Expand alternative transportation programs.

Expand alternative transportation programs including but not limited to transit ridership, carpooling, telecommuting, and innovative work scheduling.

<i>Action M-3.1</i>	Details
Implementation Leader	<ul style="list-style-type: none"> RideshareKC
Supporting Parties	<ul style="list-style-type: none"> Kansas City Area Transportation Authority (KCATA) Economic Development Corporation of Kansas City
Timing	<ul style="list-style-type: none"> Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> Consider users of all abilities and ages. Prioritize programs that move away from a car-centric community, considering those without existing modes of transportation. Provide incentives for the use of environmental-friendly modes of transit, such as carpooling passes or a bus rewards program.
Implementation Steps or Considerations	<ul style="list-style-type: none"> Continue and enhance efforts from RideshareKC. Consider setting mode share targets.

Action M-3.2: Build out the Smart Moves transit and mobility system, including the network of mobility hubs.

Continue the implementation of the Smart Moves 3.0 regional 20-year plan, with a focus on mobility hubs.

<i>Action M-3.2</i>	Details
Implementation Leader	<ul style="list-style-type: none"> Kansas City Area Transportation Authority (KCATA)
Supporting Parties	<ul style="list-style-type: none"> City Staff (Public Works)
Timing	<ul style="list-style-type: none"> Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> Consider users of all abilities and ages by incorporating universal design. Provide benches and shelters to create safe and comfortable areas, prioritizing areas disproportionately impacted by extreme heat and heavy rain, and areas without existing shelters (e.g., along 31st Street near Highway 40). Prioritize investments in U.S. Environmental Protection Agency (EPA) Environmental Justice areas. Track metrics related to equitable access to routes.
Implementation Steps or Considerations	<ul style="list-style-type: none"> Identify opportunities to develop mobility and micro mobility hubs that support first- and last-mile connections. Engage community members living and working in identified areas to help shape mobility hub development.

	<ul style="list-style-type: none"> • Support efforts to develop regional funding mechanisms for improved transit. • Coordinate with transit-oriented development efforts (see Action M-1.1). • Consider tracking metrics such as total bus routes, MAX bus routes, and frequency of service.
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Action M-3.3: Initiate a public education and marketing program to promote alternative transportation programs.

Launch an education and marketing effort to increase awareness about the benefits of alternative transportation and encourage participation in existing alternative transportation programs.

Action M-3.3 Details

Implementation Leader	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality) • MARC (Active Transportation Group) • BikeWalk KC
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Office of Communications) • My Region Wins! • Kansas City Public Library • Neighborhood organizations • Hospitals • Sierra Club Missouri Chapter • Metropolitan Energy Center (MEC)
Timing	<ul style="list-style-type: none"> • Near Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Consider users of all abilities, ages, and cultures by prioritizing multilingual resources and using plain language. • Promote options that are affordable and convenient (i.e., recreational bike lanes may not be an option for working families with children). • Consider and reorient perceptions of status about alternative modes of transportation, such as electric vehicles, by taking a health-first approach when educating and marketing the benefits to the public.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Identify neighborhood leaders who can help develop messaging and engage residents at the neighborhood level. • Focus on travel modes that are affordable and convenient.

Action M-3.4: Improve reliability of existing transit and decrease wait times for public transit to make it comparable to driving a personal vehicle.¹

Implement and expand the RideKCNext initiative to decrease wait times to between 15 and 20 minutes and expand east/west routes.

Action M-3.4 Details

Implementation Leader	<ul style="list-style-type: none"> • To be determined
Supporting Parties	<ul style="list-style-type: none"> • To be determined
Timing	<ul style="list-style-type: none"> • Near Term (2023-2025)

¹ New action elevated by CPSC during the plan review process.

Equity Considerations	<ul style="list-style-type: none"> To be determined.
Implementation Steps or Considerations	<ul style="list-style-type: none"> To be determined.

STRATEGY M-4: REDUCE VEHICLE EMISSIONS FROM IDLING BY REDUCING CONGESTION AND IMPROVING PARKING MANAGEMENT

Employ traffic management strategies to reduce congestion, idling, and rapid acceleration and deceleration, through traffic signals, light synchronization, and enforcement. This not only decreases GHG emissions from vehicles, but also particulate matter that can cause respiratory problems such as asthma (Barth & Boriboonsomsin, Traffic Congestion and Greenhouse Gases, 2009). Coordinate traffic management efforts with Vision Zero efforts to protect all road users.

Action M-4.1: Improve anti-idling efforts citywide.²

Promote MARC Idle-Free Zones and encourage anti-idling policies at schools and businesses.

Action M-4.1 **Details**

Implementation Leader	<ul style="list-style-type: none"> To be determined
Supporting Parties	<ul style="list-style-type: none"> Metropolitan Energy Center (MEC)
Timing	<ul style="list-style-type: none"> Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> Create restricted access zoning codes to limit times when heavy truck traffic, particularly goods delivery trucks, can stop/idle on congested or narrow roadways.
Implementation Steps or Considerations	<ul style="list-style-type: none"> To be determined.

Action M-4.2: Revise parking policies to promote other modes of transportation.²

Encourage a shift to other modes of transportation through parking policy and management, such as reducing or removing minimum on-site parking requirements and enacting parking maximum time limits.

Action M-4.2 **Details**

Implementation Leader	<ul style="list-style-type: none"> City Staff (Public Works)
Supporting Parties	<ul style="list-style-type: none"> Mid-America Regional Council (MARC) City Staff (Office of Environmental Quality)
Timing	<ul style="list-style-type: none"> Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> Consider cost implications of any policy to community members, avoiding increasing costs in areas that already experience a transportation cost burden.

² New action elevated by CPSC during the plan review process.

Implementation Steps or Considerations	<ul style="list-style-type: none"> To be determined.
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Action M-4.3: Develop a market-value parking strategy to reduce congestion and promote alternative transportation in high-use districts.³

Develop a market-value parking strategy based on the parking supply and demand in high use districts and direct a portion of the funding to improve micro mobility hubs and end-of-use facilities.

Action M-4.3 Details

Implementation Leader	<ul style="list-style-type: none"> City Staff (Public Works)
Supporting Parties	<ul style="list-style-type: none"> To be determined
Timing	<ul style="list-style-type: none"> Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> Consider cost implications of any policy to community members, avoiding increasing costs in areas that already experience a transportation cost burden.
Implementation Steps or Considerations	<ul style="list-style-type: none"> To be determined.

Action M-4.4: Conduct local air pollution studies.⁴

Conduct local air pollution studies in lower income communities within ¼ mile of trafficways, boulevards, and highways. Prioritize zones with unhealthy exposure to emissions for improved urban tree canopy and other linked mitigation strategies.

Action M-4.4 Details

Implementation Leader	<ul style="list-style-type: none"> To be determined
Supporting Parties	<ul style="list-style-type: none"> To be determined
Timing	<ul style="list-style-type: none"> Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> To be determined.
Implementation Steps or Considerations	<ul style="list-style-type: none"> To be determined.

³ New action elevated by CPSC during the plan review process.

⁴ New action elevated by CPSC during the plan review process.

STRATEGY M-5: REDUCE VEHICLE EMISSIONS THROUGH LOW- AND NO-EMISSION VEHICLES

Transition on-road vehicles to electric vehicles (EVs), including buses, e-bikes, and commercial vehicles, or other low- or no-emission vehicles. This reduces GHG emissions and local air pollutants from vehicles; EVs also cost about 40 percent less to maintain than conventional vehicles, lowering transportation costs (US Department of Energy, 2021).

Action M-5.1: Promote community-wide electric vehicle adoption.

Continue and enhance efforts to increase EV adoption through education, incentive programs, and development codes.

Action M-5.1

Details

Implementation Leader	<ul style="list-style-type: none"> Metropolitan Energy Center (MEC)
Supporting Parties	<ul style="list-style-type: none"> City Staff (Office of Environmental Quality) City Staff (Planning & Development) My Region Wins!
Timing	<ul style="list-style-type: none"> Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> Consider users of all abilities (e.g., ADA electric vehicle parking). Connect community members with workforce development opportunities to support the growing EV industry (e.g., mechanics). Ensure education materials are multilingual and include resources for low-interest loans for EVs, as well as transparency in maintenance costs. Create incentives for households with lower incomes to be able to afford EVs. Create incentives for local dealerships to increase their sales of EVs while increasing the value of trading in old vehicles and transitioning to hybrid or electric. Consider organizing and outreach strategies to equip local dealerships, especially those in areas with lower incomes, for the transition to EVs.
Implementation Steps or Considerations	<ul style="list-style-type: none"> Integrate e-bikes into all efforts. Explore ways to address EV infrastructure in existing development. Explore policies to encourage faster adoption of near-zero and zero-emission vehicles by commercial fleets. Prioritize low speed, frequent stop duty cycles, which have higher emissions. Identify zones where Kansas City can ban vehicles not operating with near-zero or zero-emission engine or motor.

Action M-5.2: Expand the charging station network.

Increase the number of charging stations on public and private property, to support EV adoption.

Action M-5.2

Details

Implementation Leader	<ul style="list-style-type: none"> Metropolitan Energy Center (MEC) City Staff (Office of Environmental Quality) City Staff (Public Works)
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Supporting Parties	<ul style="list-style-type: none"> • Evergy • Mid-America Regional Council (MARC) • My Region Wins! (For District 5 efforts) • Missouri Department of Transportation
Timing	<ul style="list-style-type: none"> • Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> • Consider users of all abilities (e.g., ADA electric vehicle parking). • Prioritize historic areas and communities with lower incomes, especially during new and redevelopment, to avoid expensive retrofitting costs. • Consider multiuse purposes for charging stations in communities with lower incomes, such as incorporating Wi-Fi access, especially areas within the digital divide. • Place stations in safe, well-lit public spaces such as libraries, parks, and other community centers.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Work with the state to develop an EV infrastructure plan to secure federal funds.

Action M-5.3: Electrify public-serving fleets.

Demonstrate leadership by continuing to electrify public-serving fleets, including municipal, transit, and school fleets. Explore other zero-emission vehicles as alternatives for heavy-duty equipment or other vehicles that may be difficult to electrify.

Action M-5.3	Details
Implementation Leader	<ul style="list-style-type: none"> • Metropolitan Energy Center (MEC)
Supporting Parties	<ul style="list-style-type: none"> • City Staff (General Services) • Kansas City Public Schools • Evergy • Spire • Sierra Club Missouri Chapter • Kansas City Area Transportation Authority (KCATA)
Timing	<ul style="list-style-type: none"> • Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> • Ensure that bus stop shelters that incorporate universal design features are provided along electric bus routes to increase accessibility and use. • Consider a Most Entrepreneurial Community in America (MECA) Challenge to develop reuse/repurpose strategies (e.g., mobile homes for people facing homelessness) for old buses, to ensure transition is not wasteful and that it leads to net-zero emissions. • Consider Contribute-What-You-Want option for electric public fleets to create additional revenue to invest in other electrification programs or community-based projects that support climate resilience; consider partners that would match contributions. • Consider adding electric scooters with geolocation into KCATA’s public transit models, aligning them with infrastructure projects such as bike lane development.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Monitor technology advances to rapidly increase adoption of low- and no-emission vehicles in municipal and commercial vehicle fleets of medium- and heavy-duty vehicles.

	<ul style="list-style-type: none"> • Develop and implement a municipal fleet electrification plan that prioritizes zero-emission vehicles. • Promote existing efforts, and share lessons learned with other fleet operators. • Target heavy-duty commercial fleets operating within Kansas City with advanced vehicle technology demonstrations.
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Action M-5.4: Implement an electric vehicle car-share program in communities with lower income levels.

Increase EV accessibility in communities with lower incomes by establishing an EV car-share program.

Action M-5.4	Details
Implementation Leader	<ul style="list-style-type: none"> • To be determined
Supporting Parties	<ul style="list-style-type: none"> • My Region Wins! • Bridging the Gap • Metropolitan Energy Center (MEC) • MARC • KCATA
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Create incentives such as scholarships and subsidies for the use of carshares; make EVs the default of all carshares, providing another way to justly transition to EVs.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Identify and engage potential communities to determine interest. • Identify and contract with a carshare company to manage the program. • Implement program along with education and marketing to promote participation. • Evaluate regularly and adjust, based on feedback.

Action M-5.5: Electrify transportation network companies (TNC) and carshare fleets.

Accelerate EV adoption by partnering with transportation network companies (TNC) and carshare companies to electrify their fleets.

Action M-5.5	Details
Implementation Leader	<ul style="list-style-type: none"> • Metropolitan Energy Center (MEC)
Supporting Parties	<ul style="list-style-type: none"> • None identified
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • None identified
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Identify and engage potential companies to determine interest. • Support interested companies by connecting them to funding resources and ensuring there are sufficient charging stations in their operating areas.

Action M-5.6: Reduce the use of polluting lawnmowers and other landscaping equipment.

Develop a program to improve neighborhood air quality by providing electric landscaping equipment or promoting alternative landscaping techniques for municipal, general, and commercial uses.

Action M-5.6**Details**

Implementation Leader	<ul style="list-style-type: none">• Metropolitan Energy Center (MEC)
Supporting Parties	<ul style="list-style-type: none">• City Staff (Office of Environmental Quality)• City Staff (Office of Communications)• Retailers
Timing	<ul style="list-style-type: none">• Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none">• Prioritize action in areas with a higher percentage of vulnerable populations (e.g., high asthma rates).• Create local lending hubs in communities with lower incomes.• Initiate gas-powered landscaping equipment buy-back programs, providing vouchers for electric equipment.
Implementation Steps or Considerations	<ul style="list-style-type: none">• Determine program solutions such as a gas-powered landscaping equipment buy-back programs that provide vouchers for electric equipment.• Promote program through marketing and outreach efforts.



ENERGY SUPPLY

PROVIDING CLEAN AND AFFORDABLE ENERGY

This Climate Action Section focuses on providing Kansas City with clean, affordable, and reliable energy while working toward our equitable future vision. The strategies and short-term actions outlined in this section are summarized in Table 3.

Our Equitable Future: Our energy supply will promote climate justice by reducing our community’s energy burden (the percentage of household annual income spent on electricity and gas utility costs), especially for low-income renters, transitioning to zero-emission sources by eliminating pollution disproportionately impacting low-income and historically redlined communities, and improving energy reliability so everyone can live more securely as we move forward in our clean energy transition.

Table 3: Energy Supply Strategies and Actions

Strategy	Short-term Actions
Strategy E-1: Transition energy grid mix to renewable energy	<ul style="list-style-type: none">• Action E-1.1: Expand utility-owned renewable energy production.• Action E-1.2: Leverage House Bill 734 - Modifies provisions relating to utilities.• Action E-1.3: Coordinate legal review and response by the City for state renewable energy policies.• Action E-1.4: Advocate for performance-based regulation for Evergy.
Strategy E-2: Expand neighborhood, commercial, and municipal renewable energy generation	<ul style="list-style-type: none">• Action E-2.1: Provide career training for solar installers.• Action E-2.2: Expand community solar options.• Action E-2.3: Encourage solar for new construction receiving tax abatements or other City incentives.• Action E-2.4: Adopt and advocate for solar-friendly policies and practices.• Action E-2.5: Create an online hub with climate action resources for residents and businesses.
Strategy E-3: Improve grid stability and resilience	<ul style="list-style-type: none">• Action E-3.1: Implement grid flexibility and smart grid strategies.• Action E-3.2: Implement microgrids.• Action E-3.3: Model future electricity demand to inform a resilient clean energy plan.

Strategy E-4: Purchase utility-scale renewable energy	<ul style="list-style-type: none"> Action E-4.1: Increase participation in the renewable energy direct program. Action E-4.2: Develop a program to procure renewable energy at community scale. Action E-4.3: Advocate for community choice energy legislation.
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FUNDING CONSIDERATIONS

To support implementation in the Energy Supply Climate Action Section, Table 4 summarizes potential funding sources to consider in implementing these strategies. Utility investments will play a large role in these strategies, but loans, financing, and tax credit opportunities are available for residents and businesses who want to install their own generation systems.

Table 4: Energy Supply Potential Funding Sources

Strategy	Strategy Financial	Potential Funding Sources
E-1: Transition energy grid mix to renewable energy	Utility and Private investment: No capital investment involved for community members, potential to lower electricity generation costs.	<ul style="list-style-type: none"> Low-income energy assistance resources
E-2: Expand neighborhood, commercial, and municipal renewable energy generation	Cost Savings: Return on investment (ROI) 2.5%-5.6% for solar, depending on net metering and electric time-of-use rates (Nadel, 2020).	<ul style="list-style-type: none"> Career training (E-2.3) Solar Energy International Scholarships Missouri First Alternative Energy Program – alternative energy consumer loans as well as loans to support small businesses in alternative energy Renewable Energy Tax Credits – for geothermal, small wind, solar, fuel cells and biomass stoves – new construction or existing homes Missouri Energy Loans: Targeted to K-12 schools, colleges & universities, public water facilities, and not-for-profit hospitals Eversource Solar Rebates
E-3: Improve grid stability and resilience	Public investment: Focused on improving resilience.	<ul style="list-style-type: none"> Energy Savings Performance Contracts Show Me PACE Green Bonds
E-4: Purchase utility-scale renewable energy	Cost Savings: Likely a subscription-based or other cost premium on electricity bill.	<ul style="list-style-type: none"> Eversource Renewables Direct Program Eversource Solar Subscription

SHORT-TERM ACTIONS

Priority actions identified by community stakeholders for the years 2022-2025 are detailed by strategy below.

STRATEGY E-1: TRANSITION ENERGY GRID MIX TO RENEWABLE ENERGY

Work with Evergy, the Public Service Commission, and other cities in Evergy territory to eliminate GHG emissions from grid delivered electricity by retiring coal and gas plants early and replacing them with a fair mix of utility-owned wind, solar, and storage along with customer-owned solar and storage.

Action E-1.1: Expand utility-owned renewable energy production.

Encourage Evergy to continue investing in local renewable energy production, through utility-scale solar and wind projects, to increase the percentage of renewable energy in the grid mix through the integrated resource planning (IRP) process.

Action E-1.1	Details
Implementation Leader	<ul style="list-style-type: none"> • Evergy
Supporting Parties	<ul style="list-style-type: none"> • Public Services Commission (PSC) • City Staff (Office of Environmental Quality) • CPSC • Other municipalities in Evergy territory
Timing	<ul style="list-style-type: none"> • Immediate (2022)
Equity Considerations	<ul style="list-style-type: none"> • Consider the impact of energy generation sources on utility rates, to avoid increasing the number of energy burdened homes.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Evergy to update IRP every three years, evaluating generation resources, with the goal of retiring fossil fuel plants and installing additional carbon-free resources. • Advocacy groups and the City to work with PSC to ensure support for generation plans leveraging renewable energy. • Continue implementing the emissions reduction strategies outlined in the IRP.
Desired Outcome	<ul style="list-style-type: none"> • Hawthorn coal plant retired by 2025. • All remaining coal plants in Evergy territory retired by 2030 and replaced with wind, solar, storage, and virtual power plants/demand response. • Evergy to update IRP annually.

Action E-1.2: Leverage House Bill 734 - Modifies provisions relating to utilities.

In August 2021, the Missouri legislature passed a bill approving financing mechanisms that will reduce the costs of closing fuel plants, transitioning them to renewable energy and keep customers' bills low. Evergy will adjust IRP updates to account for these opportunities, taking into account the City's preference to close coal plants by 2030 and transition to renewable energy sources more rapidly.

Action E-1.2	Details
Implementation Leader	<ul style="list-style-type: none"> • Evergy
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality) • City Staff (City Attorney's Office) • CPSC
Timing	<ul style="list-style-type: none"> • Immediate (2022)

Equity Considerations	<ul style="list-style-type: none"> • Prioritize closing fuel plants near communities of concern.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Evergy to take into account opportunities from HB734 when revising its IRP. • City legal support to ensure securitization lowers cost to customers, aligns with City’s climate goals, and prioritizes community health.
Desired Outcome	<ul style="list-style-type: none"> • Evergy updates their plans to retire Hawthorn plant by 2025 and remaining coal plants by 2030. • City intervenes at PSC and supports these retirement dates.

Action E-1.3: Coordinate legal review and response by the City for state renewable energy policies.

The City will review, advocate for, and intervene (when appropriate) on policies that support renewable energy generation and electrification, as well as prioritize community health through early coal plant retirements, including a preferred retirement date of 2025 for Hawthorn coal plant.

Action E-1.3 Details

Implementation Leader	<ul style="list-style-type: none"> • City Staff (City Attorney’s Office)
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality) • CPSC • PSC
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • To be determined.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Develop and implement a City workflow to identify, review, and take action on renewable energy policies at the state level.

Action E-1.4: Advocate for performance-based regulation for Evergy.

Work at the state legislative level to create and pass a bill creating performance-based regulation standards for Evergy, including renewable energy and energy efficiency targets.

Action E-1.4 Details

Implementation Leader	<ul style="list-style-type: none"> • Sierra Club Missouri Chapter
Supporting Parties	<ul style="list-style-type: none"> • Mothers Out Front KC • Sunrise Movement’s Kansas City Chapter • Elected officials • Other interested advocacy groups • CPSC
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Utilities need to work with labor to develop training programs to provide a just transition for workers currently employed in non-renewable sectors • Prioritize developing transparent ways of publicly reporting performance in categories of financial, environmental, and community impact. • Consider the impact of energy generation sources on utility rates, to avoid increasing the number of energy burdened homes.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Understand the barriers to bill passage when proposed in 2015. • Identify strategies to overcome the identified barriers. • Find a bill sponsor.

	<ul style="list-style-type: none"> • Work with sponsor to overcome identified barriers and build support.
Desired Outcome	<ul style="list-style-type: none"> • The City has intervened in all related IRP filings and rate cases in Missouri starting in 2022 and advocated for responsible spending to meet climate plan goals/targets.

STRATEGY E-2: EXPAND NEIGHBORHOOD, COMMERCIAL, AND MUNICIPAL RENEWABLE ENERGY GENERATION

Invest in local solar generation on homes, businesses, and City-owned properties and parking lots. Batteries should be installed with on-site generation to form a microgrid that can provide power in case of power outages at critical locations, improving resiliency to natural disasters. Installing solar panels on homes not only decreases utility bills but has also been shown to increase home values (US Department of Energy, 2021).

Action E-2.1: Provide career training for solar installers.

Provide opportunities for training in solar installation (technicians) to support the growing market focusing on recruitment from multicultural communities.

Action E-2.1	Details
Implementation Leader	<ul style="list-style-type: none"> • Local Community Colleges • Local Solar Installers
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality) • Kansas City Public Schools • University of Missouri-Kansas City (UMKC) • Parkville University • Full Employment Council • Workforce Development Board • International Brotherhood of Electrical Workers
Timing	<ul style="list-style-type: none"> • Immediate (2022)
Equity Considerations	<ul style="list-style-type: none"> • Focus recruitment on historically marginalized, multicultural, and low- and middle-income communities, to provide economic opportunities. • Ensure that investment in training matches jobs needs, to prevent student investment that does not lead to increased opportunity. • Develop multilingual training courses and materials. • Consider recruitment models that partner with pre-entry, re-entry, and parole programs, to create a green career pipeline for returning citizens. • Develop scholarships for individuals with lower incomes. • Develop scholarships to create a green career pipeline for multicultural women.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Create an inventory of academic institutions and other organizations that provide related technician training • Coordinate with academic institutions and other training organizations to identify gaps in solar technician training opportunities for multicultural communities. • Develop programs and incentives to help fill those gaps.
Desired Outcome	<ul style="list-style-type: none"> • By 2022, put infrastructure in place for a training program, prioritizing outreach to traditionally redlined neighborhoods.

Action E-2.2: Expand community solar options.

Install community solar throughout the city to provide renewable energy options for renters, and businesses or homes without suitable rooftop opportunities. Consider leveraging the KCMO Land Bank and Urban Homesteading programs. Leverage these installations to demonstrate solar energy best practices and encourage homeowners and businesses to invest in distributed generation. Support changes at the state level to allow for true community solar.

Action E-2.2	Details
Implementation Leader	<ul style="list-style-type: none"> • Evergy (installation) • Local solar installers
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality) • KCMO Land Bank • Jackson County Land Bank • National Housing Trust Fund • CPSC
Timing	<ul style="list-style-type: none"> • Immediate (2022)
Equity Considerations	<ul style="list-style-type: none"> • Leverage unused lots in historically disinvested neighborhoods and ensure benefits of the solar installations remain in the community. • Ensure that emergency preparedness and mitigation are included alongside expansion. • Leverage existing community gardens as hubs for shared community solar. • Ensure methods are in place to maintain land conservation during solar installations. • Prioritize local companies and explore options to work with workforce programs for project development.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Work with counties and other permitting entities to allow community solar. • Identify ideal locations for new community solar installations based on community need. • Work with Evergy to determine the details of installation and subscription opportunities. • Coordinate with community groups to encourage subscription to the program. • Note: Alternatively, this action could be pursued by an interested 3rd party installer, but coordination with Evergy is still necessary.
Desired Outcome	<ul style="list-style-type: none"> • By 2030, an additional 110MW of new renewable energy has been built; by 2040, an additional 285 MW of new renewable energy has been built (110 MW from 2022-2030, 175 MW from 2030-2040). • Evaluate in terms of equitable implementation.

Action E-2.3: Encourage solar for new construction receiving tax abatements or other City incentives.

Develop policy encouraging projects receiving City funds, incentives, or tax abatements to install rooftop solar or, in the case that roof area is insufficient, to use utility renewable energy sources.

Action E-2.3	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality) •
Supporting Parties	<ul style="list-style-type: none"> • City Staff (City Planning and Development) • Large property developers
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)

Equity Considerations	<ul style="list-style-type: none"> • Ensure solar installation requirements do not prevent development of affordable housing. • Ensure there is a process in place to maintain the system, so residents and businesses see the benefits of the solar installation. • Consider advancing new local businesses with rooftop solar installation, providing subsidies for upfront costs.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Provide staff guidance to encourage solar installation on facilities using City funds. • Work with advocacy groups to build support for solar as new facilities are developed. • Coordinate energy efficiency requirements from Action B-1.5.
Desired Outcomes	<ul style="list-style-type: none"> • Include higher score for onsite solar in Advance KC scorecard.

Action E-2.4: Adopt and advocate for solar-friendly policies and practices.

Review City codes, permitting, policies, and procedures to identify and remove barriers to distributed solar installation, including a solar-ready ordinance for new construction and increasing incentives to lower costs.

Action E-2.4	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality)
Supporting Parties	<ul style="list-style-type: none"> • City Staff (City Planning and Development) • Missouri Solar Energy Industries Association • Sierra Club Missouri Chapter • Rocky Mountain Institute Solarize community program (starting in 2022) • Local solar installers • Solarize KC • Renew MO • CPSC
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Solar is inaccessible to many residents. Consider leveraging loans or funding to help encourage solar installations in historically disinvested neighborhoods. This may also require an investment in roofing, which could leverage building efficiency efforts. • Work with affordable housing units and prioritize opportunities to expand access to solar energy in old buildings vulnerable to energy burden.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Work with local installers to understand the barriers to local solar installations. • Identify opportunities to streamline the process. • Create an implementation plan with responsible parties and any funding needed to implement the desired changes. • Coordinate with Action B-2.1 to provide energy efficiency support concurrently.
Desired Outcome	<ul style="list-style-type: none"> • Adopt Solar App developed by NREL in 2022. • By 2030, an additional 110MW of new renewable energy has been built; by 2040, an additional 285 MW of new renewable energy has been built (110 MW from 2022-2030, 175 MW from 2030-2040). • Commit to developing metrics for commercial solar, residential and multifamily solar, City-owned solar, and airport and landfill solar.

	<ul style="list-style-type: none"> • Evaluate in terms of equitable implementation.
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Action E-2.5: Create an online hub with climate action resources for residents and businesses.

Create a City-maintained online resource that residents and businesses can visit to learn more about climate action. Include resources on renewable energy, electrification, natural resources, green jobs, and other climate-related initiatives.

Action E-2.5	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality)
Supporting Parties	<ul style="list-style-type: none"> • CPSC • All implementation partners
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Ensure the website is accessible to all users.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Create a schedule to regularly update resources.

STRATEGY E-3: IMPROVE GRID STABILITY AND RESILIENCE

Use climate models to ensure the local power grid can provide reliable electricity even with the predicted impacts of climate change. For example, the increase in extreme heat events will increase the electrical demand from air conditioning during these events; so, strategies to reduce these peak demand events may be needed to avoid brownouts. Additionally, include the anticipated increase in grid demand from the building and transportation electrification strategies in this plan.

Action E-3.1: Implement grid flexibility and smart grid strategies.

Leverage smart grid strategies, virtual power plants, and grid flexibility technologies to help ensure grid reliability with increasing renewable energy generation and the expected impacts of climate change.

Action E-3.1	Details
Implementation Leader	<ul style="list-style-type: none"> • Evergy
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality) • City Staff (City Attorney’s Office) • Public Services Commission (PSC) • CPSC
Timing	<ul style="list-style-type: none"> • Immediate (2022)
Equity Considerations	<ul style="list-style-type: none"> • Target outreach for opportunities to shift loads for bill credits or incentives to communities with lower incomes, to help reduce energy burden and help businesses thrive. • Manage rollout plan to minimize impact on utility prices. Pair cost savings strategies with equipment investment needs to manage costs. • Prioritize smart grid strategies in areas burdened by the digital divide and in low income and traditionally redlined areas.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Evergy to identify system needs based on internal assessment. • PSC to approve plan outlined.

Desired Outcome	<ul style="list-style-type: none"> • Explore partnership with Ohm Connect.
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Action E-3.2: Implement microgrids.

Pair on-site storage and microgrid controls with on-site solar generation, to provide a microgrid that can provide power during grid blackouts or brownouts.

Action E-3.2	Details
Implementation Leader	<ul style="list-style-type: none"> • Building owners
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Office of Emergency Management) • City Staff (Office of Environmental Quality) • Evergy • Solar and storage installers • CPSC • KC Water
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Prioritize microgrids in areas burdened by the digital divide. • Ensure emergency preparedness and mitigation strategies (e.g., cooling centers and heating hubs that are universally designed and provide storage for medicine and other necessities) are considered alongside implementation. • Ensure methods are in place to maintain land conservation during development.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Building owners identify high-priority facilities. • Work with local installers to install roof-top solar and storage systems. • Coordinate with Evergy to connect the system to the grid. • Note: This strategy can be connected to E-3.1 as the batteries can also be used to provide power during periods of peak demand to lessen the load on the grid or programmed to charge during times of excess renewable energy generation.
Desired Outcomes	<ul style="list-style-type: none"> • Identify critical infrastructure and communities that could benefit from microgrid installation.

Action E-3.3: Model future electricity demand to inform a resilient clean energy plan.

Ensure that future energy use trends such as increased temperatures, extreme weather, building electrification, and vehicle electrification are considered during electric energy planning to ensure a reliable, clean energy supply. Additionally, include the anticipated increase in grid demand from the building and transportation electrification strategies in this plan.

Action E-3.3	Details
Implementation Leader	<ul style="list-style-type: none"> • Evergy
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality) • City Staff (City Attorney’s Office) • CPSC
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Consider long-term impacts on utility costs • Ensure that emergency preparedness and mitigation strategies are anticipated and integrated into the future plan

Implementation Steps or Considerations	<ul style="list-style-type: none"> • Identify key trends for consideration in energy forecasting. • These may include actions from strategies in the Homes & Buildings section • Incorporate trends into IRP analysis. • Adjust during IRP updates, based on new technology or additional information.
Desired Outcomes	<ul style="list-style-type: none"> • City reviews assumptions made in Evergy’s IRP process and provides feedback.

STRATEGY E-4: PURCHASE UTILITY-SCALE RENEWABLE ENERGY

Purchase renewable energy from utility-scale solar and wind sources to supplement renewable energy available through the grid. Because of project size, utility-scale solar is a cost-effective way to reduce carbon emissions and can provide access to those who cannot generate renewable energy on-site. This will be a crucial strategy for meeting the City’s carbon neutral electricity goal by 2030.

Action E-4.1: Increase participation in the renewable energy direct program.

The City is working on a purchase agreement for renewable energy to supply City facilities and continue to expand participation to meet the City’s 100% renewable energy goal.

Action E-4.1 **Details**

Implementation Leader	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality)
Supporting Parties	<ul style="list-style-type: none"> • Evergy
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Consider the environmental impact of large renewable energy installations. • Ensure methods are in place to maintain land conservation during purchase and installation.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Identify total renewable energy required to meet the City’s goals. • Determine the gap(s) between the needs and agreements in place.

Action E-4.2: Develop a program to procure renewable energy at community scale.

Based on the public facing goals from Evergy and the projected local distributed generation, there will be a significant need for additional renewable energy to meet the 2030 goal. This will need to be filled by a large-scale renewable energy agreement.

Action E-4.2 **Details**

Implementation Leader	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality) •
Supporting Parties	<ul style="list-style-type: none"> • Evergy
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Consider the impact of any cost premiums on households with lower incomes. • Work with affordable housing organizations to develop community-based programs or incorporate renewable energy in home repair programs where costs are covered if residents earn a limited income.

Implementation Steps or Considerations	<ul style="list-style-type: none"> Review options for renewable energy procurement. Talk to other communities that are working on these types of agreements, to learn about opportunities and consider lessons learned. Possible communities to contact include: <ul style="list-style-type: none"> Salt Lake City, UT Boise, ID Bozeman, MT Work with Evergy to understand the opportunities for renewable energy procurement.
Desired Outcomes	<ul style="list-style-type: none"> City participates in IRP process and assesses the need.

Action E-4.3: Advocate for community choice energy legislation.

Work at the state legislative level to create and pass a bill supporting community choice energy as a mechanism for accelerating the renewable energy transition.

Action E-4.3	Details
Implementation Leader	<ul style="list-style-type: none"> Sierra Club Missouri Chapter Sunrise Movement
Supporting Parties	<ul style="list-style-type: none"> Mothers Out Front KC Elected officials Other interested advocacy groups CPSC PSC
Timing	<ul style="list-style-type: none"> Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> Consider the impact of energy generation sources on utility rates, to avoid increasing the number of energy burdened homes Other equity considerations may come to light depending on the details of legislation created
Implementation Steps or Considerations	<ul style="list-style-type: none"> Develop a draft of desired legislation. Find a bill sponsor. Work with bill sponsor to generate support for the bill.
Desired Outcomes	<ul style="list-style-type: none"> Community choice energy is included in the next legislative or regulatory priorities.



NATURAL SYSTEMS

USING NATURE TO COOL OUR CITY, PREVENT FLOOD DAMAGE, AND CLEAN OUR AIR AND WATER

This Climate Action Section focuses on being responsible stewards of our environment so we can fully realize the benefits of well-functioning and healthy ecosystems as well as promote our equitable climate future. The strategies and short-term actions outlined in this section are summarized in Table 5.

Our Equitable Future: Our natural systems will promote climate justice by reintegrating diverse, native ecosystems into all of our neighborhoods, especially in soil deficient, abandoned, and blighted areas- ridding unjust and unsustainable land practices - and by encouraging city-wide environmental stewardship to reduce flooding, increase water retention, reduce heat islands, repair the soil, improve air quality, and increase the overall wellbeing for our communities and our biome.

Table 5: Natural Systems Strategies and Actions

Strategy	Short-term Actions
<p>Strategy N-1: Expand network of trees and natural areas</p>	<ul style="list-style-type: none"> • Action N-1.1: Preserve and enhance green space and trees to increase the tree canopy. • Action N-1.2: Systematically protect, acquire, and restore floodplain and riparian forests. • Action N-1.3: Promote and incentivize the use of native plants, grasses, shrubs, groundcover, and trees. • Action N-1.4: Implement heat island mitigation strategies through development.
<p>Strategy N-2: Promote regenerative, ecologically healthy soils and landscapes</p>	<ul style="list-style-type: none"> • Action N-2.1: Maintain healthy ecosystems supportive of biodiversity. • Action N-2.2: Apply compost and microorganism-nurturing inoculants in parks, in gardens, and along greenways. • Action N-2.3: Promote urban- and landscape-scale sequestration projects. • Action N-2.4: Consider new development’s impact on ecosystems and healthy soil structure. • Action N-2.5: Revise policies for City operations, to protect ecological health for City-managed landscapes and encourage other public and private entities to do the same.
<p>Strategy N-3: Promote sustainable water supply and use</p>	<ul style="list-style-type: none"> • Action N-3.1: Practice water conservation and demand management. • Action N-3.2: Incentivize rainwater collection.

<p>Strategy N-4: Use natural systems to manage stormwater runoff</p>	<ul style="list-style-type: none"> • Action N-4.1: Ensure climate considerations are incorporated into planning for natural processes. • Action N-4.2: Promote education on the value of rain gardens to homeowners. • • Action N-4.3: Educate and advocate for the value of healthy soil to infiltrate stormwater on all surfaces. • Action N-4.4: Increase capacity for stormwater collection and treatment. • Action N-4.5: Incentivize, educate, and encourage community members and businesses to replace hardscapes with pervious surfaces and • Action N-4.6: Develop a regional or watershed-scale plan for stormwater management.
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FUNDING CONSIDERATIONS

To support implementation in the Natural Systems Climate Action Section, Table 6 summarizes potential funding sources to consider in implementing these strategies. Public funding plays a large role in this action area, especially in public parks and open spaces.

Table 6: Natural Systems Potential Funding Sources

Strategy	Strategy Financial	Potential Funding Sources
<p>N-1: Expand network of trees and natural areas</p>	<p>Public investment: Focused on improving resilience and carbon sequestration.</p>	<ul style="list-style-type: none"> • Missouri Department of Conservation Urban Conservation Cost Share • Missouri Department of Conservation Community Conservation Grant • U.S. Environmental Protection Agency (EPA) Environmental Justice Small Grants Program • Missouri Department of Conservation Land Conservation Partnership Grant • Potential “Green Layer” funding campaign to secure funding from regional philanthropies
<p>N-2: Promote regenerative, ecologically healthy soils and landscapes</p>	<p>Public investment: Focused on improving resilience and carbon sequestration.</p>	<ul style="list-style-type: none"> • Missouri Department of Conservation Community Conservation Grant • U.S. Environmental Protection Agency (EPA) Brownfield Grants • Missouri Department of Conservation Land Conservation Partnership Grant
<p>N-3: Sustainable water supply and use</p>	<p>Public investment: Focused on improving resilience.</p>	<ul style="list-style-type: none"> • Missouri Department of Conservation Land Conservation Partnership Grant

		<ul style="list-style-type: none"> • MARC Water Quality Public Education Committee Mini-Grants • City Transportation and Infrastructure budget
N-4: Use natural systems to manage stormwater runoff	Public investment: Focused on improving resilience and carbon sequestration.	<ul style="list-style-type: none"> • U.S. Environmental Protection Agency (EPA) grants • Missouri Department of Conservation Urban Conservation Cost Share • Kansas City Smart Sewer Program

SHORT-TERM ACTIONS

Priority actions identified by community stakeholders for the years 2022-2025 are detailed by strategy below.

STRATEGY N-1: EXPAND NETWORK OF TREES AND NATURAL AREAS

Expand and protect Kansas City’s network of trees and natural areas, prioritizing native plants that are resilient to climate impacts. Increasing tree canopy coverage and other types of green space helps reduce urban heat islands, provides healthy spaces for residents to enjoy, cleans the air, and provides wildlife habitat. Air pollution benefits alone are estimated at more than \$117,000 annually per tree (i-Tree Canopy, 2021).

Action N-1.1: Preserve and enhance green space and trees to increase the tree canopy.

Preserve and enhance green space and trees to increase the tree canopy, from 31% (and declining) to a goal of 35% for City property and an additional 15% on private property, by enhancing existing tree preservation and planting programs and exploring new policy mechanisms (e.g., tree preservation ordinance), public/private partnerships, and programs. Focus efforts on historically underserved neighborhoods where heat islands exist.

<i>Action N-1.1</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (Parks and Recreation) • Heartland Tree Alliance • Bridging the Gap
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality) • My Region Wins! • Antioch Urban Growers • Platte Land Trust • Syntax Land Design • Missouri Department of Transportation
Timing	<ul style="list-style-type: none"> • Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> • Prioritize efforts in areas most impacted by extreme heat. • Target and expand existing community gardens and urban forests on abandoned and neglected lands as areas of opportunity. • Consider beautification efforts in areas with lower incomes during preservation and enhancement efforts. • Prioritize areas near and surrounding the Blue River.

Implementation Steps or Considerations	<ul style="list-style-type: none"> • Ensure adequate funding for the Urban Forest Master Plan implementation. • Explore policy mechanisms such as a tree preservation ordinance. • Properly site trees near buildings to maximize benefits, including reducing heat levels, improving air quality, and reducing avian window strikes. • Work with property owners to provide shade trees for every building in the city, as called for in the Urban Forest Master Plan.
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Action N-1.2: Systematically protect, acquire, and restore floodplain and riparian forests.

Reforest Kansas City’s floodplains to achieve carbon sequestration, recreation, and other benefits by systematically protecting, acquiring, and restoring forests.

Action N-1.2	Details
Implementation Leader	<ul style="list-style-type: none"> • Heartland Conservation Alliance • City Staff (KC Water)
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Parks and Recreation) • Mid-America Regional Council (MARC) • Bridging the Gap • The Conservation Fund • The Nature Conservancy • Antioch Urban Growers • Platte Land Trust • Syntax Land Design
Timing	<ul style="list-style-type: none"> • Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> • Ensure adequate investment in urban core areas to acquire, protect, and restore urban vacant lots so investments are comparable to those in larger suburban and rural areas. • Prioritize areas and neighborhoods near and surrounding the Blue River. • Build partnerships and coordinate outreach and engagement methods to inform and encourage residents about environmental stewardship.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Build on the Heartland Conservation Alliance working paper on regional systematic riparian corridor restoration.

Action N-1.3: Promote and incentivize the use of native plants, grasses, shrubs, groundcover, and trees.

Encourage, incentivize, or require the use of native plants on City property, vacant lots, medians, and communitywide. Native plants are beautiful and iconic to our region, support local pollinators, can survive Kansas City’s weather extremes, need less irrigation, and reduce annual expenses (including mowing).

Action N-1.3	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (KC Parks) • Deep Roots KC
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Parks and Recreation) • Missouri Master Gardeners • My Region Wins! • Antioch Urban Growers • Syntax Land Design • Native Plant Academy • Missouri Department of Conservation

	<ul style="list-style-type: none"> • MO Hives KC • Kansas City Community Gardens • Missouri Department of Transportation
Timing	<ul style="list-style-type: none"> • Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> • Target and expand existing community gardens and urban forests on abandoned and neglected lands as areas of opportunity. • Consider beautification and restoration efforts, in areas with lower incomes or neglected properties, during preservation and implementation. • Work with Indigenous communities when identifying areas for large-scale usage and plans for implementation.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Celebrate those who have native landscapes, to acknowledge their efforts and encourage others. • Update City policies to require native landscaping on City property. • Update City code and train code enforcement officers to recognize the difference between native landscaping and neglected properties. • Promote collection and propagation of local seeds to increase capacity to plant and to reduce the cost of expensive plant materials. • Explore opportunities to use native plant around solar arrays, to promote sustainable land use.

Action N-1.4: Implement heat island mitigation strategies through development.

Evaluate development codes for opportunities to encourage or require urban heat island mitigation strategies as part of new development or redevelopment.

Action N-1.4	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (Planning & Development)
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality) • City Staff (Health Department) • Black Health Care Coalition
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Align mitigation strategies with green infrastructure development and mobility improvements (e.g., providing shelter at bus stops), prioritizing areas most vulnerable to extreme heat and other areas as identified by the City’s 2021 heat island mapping project. • Work with senior citizens and people with disabilities to ensure mitigation strategies and development are accessible to all.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Evaluate opportunities to promote green roofs, sufficient space for large trees, and other mitigation strategies.

STRATEGY N-2: PROMOTE REGENERATIVE, ECOLOGICALLY HEALTHY SOILS AND LANDSCAPES

Adopt and promote healthy soil practices to support biodiversity, improve water and air quality, reduce erosion, and improve plant health. Climate change not only threatens humans, but disrupts fragile

ecosystems on which human activity depend, and further stresses endangered species. In addition to supporting Kansas City’s ecosystems and improving quality of life, soil stores three times more carbon than plants - making it a powerful GHG emissions reduction tool (Schwartz, 2014).

Action N-2.1: Maintain healthy ecosystems supportive of biodiversity.

Maintain healthy ecosystems supportive of biodiversity by connecting landscapes and corridors to enable migrations, removing invasive species in parks and along greenways, repairing and promoting healthy soils, and conserving key natural assets and open space including working lands and riparian corridors.

Action N-2.1	Details
Implementation Leader	<ul style="list-style-type: none"> Will vary by location and focus
Supporting Parties	<ul style="list-style-type: none"> City Staff (KC Parks) Missouri Master Naturalists Mid-American Regional Council (MARC) Heartland Conservation Alliance Bridging The Gap Kansas City WildLands Antioch Urban Growers Missouri Department of Conservation Platte Land Trust
Timing	<ul style="list-style-type: none"> Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> Prioritize beautifying corridors and other opportunities in areas with lower incomes, simultaneously revitalizing urban ecosystems and addressing neglected areas (e.g., Paseo Boulevard (East of Troost) should be beautified and maintained at the same level as Ward Parkway (West of Troost)). Include communities in revitalization efforts through community planning and equipping residents for environmental stewardship.
Implementation Steps or Considerations	<ul style="list-style-type: none"> Define and map key landscapes and corridors, to help prioritize conservation efforts. Include well-spaced oases of wildlife food supply and cover as part of wildlife corridor development. Prioritize natural systems for solutions (e.g., pest control). Explore opportunities to use biologically friendly lighting, light management, and other best practices shared through Lights Out Heartland.

Action N-2.2: Apply compost and microorganism-nurturing inoculants in parks, in gardens, and along greenways.⁵

Microorganisms promote a robust soil biome, which is essential for soil structure that adequately holds water and oxygen and that adequately sequesters carbon.

Action N-2.2	Details
Implementation Leader	<ul style="list-style-type: none"> To be determined
Supporting Parties	<ul style="list-style-type: none"> To be determined
Timing	<ul style="list-style-type: none"> Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> To be determined.

⁵ New action elevated by CPSC during the plan review process.

Implementation Steps or Considerations	<ul style="list-style-type: none"> To be determined.
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Action N-2.3: Promote urban- and landscape-scale sequestration projects.

Promote urban- and landscape-scale sequestration projects, including preservation of sequestering lands, expansion and protection of the urban forest, and promotion of soil health and soil repair.

Action N-2.3	Details
Implementation Leader	<ul style="list-style-type: none"> Will vary by location and focus
Supporting Parties	<ul style="list-style-type: none"> Missouri DNR Soil and Water Conservation Districts Heartland Conservation Alliance Giving Grove Bridging The Gap Kansas City Public Schools Antioch Urban Growers Platte Land Trust
Timing	<ul style="list-style-type: none"> Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> Target and expand existing community gardens and urban forests on abandoned or neglected lands in restoration efforts. Prioritize soil restoration in historically industrial districts.
Implementation Steps or Considerations	<ul style="list-style-type: none"> Identify project opportunities that can be linked to Strategy N-1, as well as composting efforts through the Food and the Waste & Materials sections.

Action N-2.4: Consider new development's impact on ecosystems and healthy soil structure.

Explore ways to integrate ecosystem health impacts evaluation and soil regeneration into the development review and implementation process.

Action N-2.4	Details
Implementation Leader	<ul style="list-style-type: none"> City Staff (Planning & Development)
Supporting Parties	<ul style="list-style-type: none"> City Staff (Office of Environmental Quality) Heartland Conservation Alliance
Timing	<ul style="list-style-type: none"> Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> Develop public and transparent grading process to assess development's impact on both ecological and human health, factoring in disproportionately impacted areas (e.g., childhood asthma in industrial districts).
Implementation Steps or Considerations	<ul style="list-style-type: none"> Develop an assessment that can be used in the development review process. Consider starting with a few specific types of development, then expand.

Action N-2.5: Revise policies for City operations, to protect ecological health for City-managed landscapes and encourage other public and private entities to do the same.

Ban City use of pollinator-threatening pesticides and insecticides (neonicotinoids and chlorpyrifos) in green spaces and government property, to protect pollinator biodiversity. Explore alternatives (e.g., calcium

magnesium acetate, beetroot powder) to salt and other ice and snow treatments, to protect water quality and nearby vegetation and soil.

<i>Action N-2.5</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (KC Parks) • City Staff (Public Works)
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality)
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • To be determined.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Consider testing alternative management techniques on pilot sites. • Incorporate efforts into environmental education and outreach opportunities.

STRATEGY N-3: PROMOTE SUSTAINABLE WATER SUPPLY AND USE

Employ reliable and resilient approaches to water management to ensure fresh water is available and affordable to all community members. Climate change manifests itself primarily through changes in the water cycle, emphasizing the importance of a resilient water management supply that addresses drought, flooding, and storm risks.

Action N-3.1: Practice water conservation and demand management.

Practice water conservation and demand management through education and outreach, incentivizing water efficiency measures and pursuing an EPA WaterSense partnership.

<i>Action N-3.1</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (KC Water)
Supporting Parties	<ul style="list-style-type: none"> • Bridging the Gap • Antioch Urban Growers
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Sometimes implementing conservation is not possible until plumbing is upgraded or repaired. Be sure to include that cost in the program. • Consider jumpstarting programs in historic and industrial districts where there are higher risks of water contamination due to aging infrastructure. • Prioritize areas near and surrounding the Blue River and other watersheds.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Consider expanding existing programs (e.g., Leak Stoppers) or developing new programs to incentivize water conservation. • Enroll the City as a WaterSense partner and share experiences with other interested organizations.

Action N-3.2: Incentivize rainwater collection.

Develop a program to incentivize the collection and reuse of rainwater by community members.

<i>Action N-3.2</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (KC Water)

Supporting Parties	<ul style="list-style-type: none"> • Antioch Urban Growers • Kansas City Community Gardens • Neighborhood organizations • Mid-America Regional Council (MARC)
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Target and expand existing community gardens and urban forests on abandoned and neglected lands as areas of opportunity. • Work with nonprofit organizations and neighborhood associations to provide grants for rain barrels and other materials, including educational instructions, to help communities cover costs.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Coordinate program development with water quality education efforts led by MARC's Water Quality Public Education Committee.

STRATEGY N-4: USE NATURAL SYSTEMS TO MANAGE STORMWATER RUNOFF

Increase the capacity of Kansas City's landscape to manage stormwater and protect water quality. Green infrastructure, like roadside plantings, vegetated rooftops, and bioswales, can prevent runoff by capturing rain where it falls and can help clean stormwater by breaking down or capturing pollutants. This offers a cost-effective solution for managing flooding and stormwater pollution.

Action N-4.1: Ensure climate considerations are incorporated into planning for natural processes.

Ensure climate considerations are incorporated into planning and engineering for natural processes and systems, such as increased wet weather infiltration and inflow into sewers.

Action N-4.1

Details

Implementation Leader	<ul style="list-style-type: none"> • City Staff (KC Water)
Supporting Parties	<ul style="list-style-type: none"> • Mid-America Regional Council (MARC) • Syntax Land Design (to share their related research) • Antioch Urban Growers (to share their experience with bioswales)
Timing	<ul style="list-style-type: none"> • Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> • Consider prioritizing projects in areas disproportionately impacted by flooding. • Align green infrastructure projects, prioritized in areas with lower incomes where sewer infrastructure is poor or outdated, alongside planning for natural processes.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Identify opportunities to integrate climate considerations into planning and operations for City systems (e.g., integrate climate scenarios into KC Smart Sewer Program efforts).

*Action N-4.2: Promote education on the value of rain gardens to homeowners.*⁶

Use educational materials already developed regionally and at the city level to increase the number of rain gardens planted on private property.

Action N-4.2

Details

Implementation Leader	<ul style="list-style-type: none"> • To be determined
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⁶ New action elevated by CPSC during the plan review process.

Supporting Parties	<ul style="list-style-type: none"> To be determined
Timing	<ul style="list-style-type: none"> Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> To be determined.
Implementation Steps or Considerations	<ul style="list-style-type: none"> To be determined.

Action N-4.3: Educate and advocate for the value of healthy soil to infiltrate stormwater on all surfaces.⁷

Integrate messaging and best practices related to healthy soil and infiltration into existing educational materials.

Action N-4.3	Details
Implementation Leader	<ul style="list-style-type: none"> To be determined
Supporting Parties	<ul style="list-style-type: none"> To be determined
Timing	<ul style="list-style-type: none"> Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> To be determined.
Implementation Steps or Considerations	<ul style="list-style-type: none"> To be determined.

Action N-4.4: Increase capacity for stormwater collection and treatment.

Use green infrastructure to address changes to rainfall patterns caused by climate change that may overwhelm existing stormwater systems.

Action N-4.4	Details
Implementation Leader	<ul style="list-style-type: none"> City Staff (KC Water)
Supporting Parties	<ul style="list-style-type: none"> My Region Wins! Antioch Urban Growers Syntax Land Design
Timing	<ul style="list-style-type: none"> Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> Consider prioritizing projects in areas disproportionately impacted by flooding, especially those with outdated infrastructure, stormwater collection systems, homes, and other buildings. Work toward eliminating combined sewer outfalls that directly affect neighborhoods that are disproportionately impacted by flooding. Note that stormwater fees affect many households with lower incomes, especially as water has become the largest utility bill for many households.
Implementation Steps or Considerations	<ul style="list-style-type: none"> Identify ways green infrastructure projects (e.g., trails and gardens within riparian greenways) can be linked to Mobility and Food strategies. Use land banks or similar mechanisms and incentives to empower neighborhoods to develop their own green infrastructure projects.

⁷ New action elevated by CPSC during the plan review process.

	<ul style="list-style-type: none"> • Use green infrastructure projects to provide green job opportunities. • Include trees and large shrubs as part of green infrastructure projects, which may absorb large quantities of stormwater with lower maintenance costs than for perennials.
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Action N-4.5: Incentivize, educate, and encourage community members and businesses to replace hardscapes with pervious surfaces and greenspace.⁸

Work to develop a program to incentivize projects and processes that can prove infiltration results.

<i>Action N-4.5</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (KC Water)
Supporting Parties	<ul style="list-style-type: none"> • Syntax Land Design
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Support to cover the cost of plants, water, and related materials, for households with lower incomes and non-profit participants, may need. • Align green infrastructure projects prioritized in areas with lower incomes that don't have existing infrastructure, such as sidewalks, to include pervious surfaces. • Develop educational resources alongside community drives for plants and other materials; inform residents of do-it-yourself (DIY) methods. • Consider utilizing community hubs when donating or purchasing materials.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Engage the community to understand what types of incentives would be most effective. • Identify ways replacement projects can be linked to Mobility and Food strategies (e.g., gardens). • Update City policies to include consideration for engineered green infrastructure instead of required tank water storage. (Currently projects are required to install large pipes or concrete vaults to store site stormwater for 48 hours. Engineered soils could accomplish this and more but are not allowed by the Planning and Permitting Department currently. This strategy could be applied to both public and private land for much lower costs and improved hydrology, plant and tree health, and stormwater impacts).

Action N-4.6: Develop a regional or watershed-scale plan for stormwater management.

Look for opportunities to develop a regional or watershed-scale plan for stormwater management as this may be more cost effective than developing individual plans. This is also an opportunity to incorporate Mobility and Food strategies through restoration of riparian corridors.

<i>Action N-4.6</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • Mid-America Regional Council (MARC)
Supporting Parties	<ul style="list-style-type: none"> • City Staff (KC Water) • Antioch Urban Growers • Syntax Land Design • Sierra Club Missouri Chapter
Timing	<ul style="list-style-type: none"> • Near-Term (2023-2025)

⁸ New action elevated by CPSC during the plan review process.

Equity Considerations	<ul style="list-style-type: none">• Maintenance of areas should be cost-shared by communities, so some areas do not receive a greater degree of maintenance than others.• Consider beautification in areas within the watershed that are facing neglect.
Implementation Steps or Considerations	<ul style="list-style-type: none">• Survey communities in the region to understand level of interest in developing a regional plan; use results to define region boundaries.• Establish oversight entity (MARC) to guide regional plan development.• Identify ways regional planning can be linked to Mobility and Food strategies (e.g., trails and gardens within riparian greenways).• Regularly update the plan as portions are completed or additional changes are needed.



HOMES & BUILDINGS

CREATING HEALTHY INDOOR SPACES FOR LIVING, WORKING, AND ENJOYING.

This Climate Action Section focuses on retrofitting existing buildings and constructing new buildings that reduce greenhouse gas emissions, improve our community resilience, and support our wellbeing and advance our equitable climate future. The strategies and short-term actions outlined in this section are summarized in Table 7.

Our Equitable Future: Our homes and buildings will promote climate justice by reducing housing burden (the percentage of household annual income spent on rent or mortgage), addressing the housing crisis, and enabling people to have more agency over where they live and the conditions in which they live. This includes prioritizing the safety and stability of people facing homelessness, restoring older heritage and abandoned homes, improving indoor air quality and other unsafe indoor health and living conditions, and investing in the infrastructure needed to advance energy efficiency and building decarbonization in affordable and multifamily housing for renters and low-income homeowners.

Table 7: Homes & Buildings Strategies and Actions

Strategy	Short-term Actions
Strategy B-1: Increase building efficiency and health for commercial and public buildings	<ul style="list-style-type: none">• Action B-1.1: Revise current benchmarking program by adding building performance standards.• Action B-1.2: Develop and implement a community-wide, public, and professional education initiative.• Action B-1.3: Promote funding opportunities for energy efficiency upgrades.• Action B-1.4: Increase energy efficiency of municipal facilities.• Action B-1.5: Implement energy efficiency requirements for private entities seeking City incentives.• Action B-1.6: Reduce natural gas system leakage.• Action B-1.7: Provide proactive support for project implementation.
Strategy B-2: Improve the efficiency, affordability, and durability of homes	<ul style="list-style-type: none">• Action B-2.1: Provide support for implementing energy efficiency improvements.• Action B-2.2: Develop and implement a community-wide education initiative.• Action B-2.3: Reduce natural gas system leakage.• Action B-2.4: Require home energy and carbon disclosures at time of lease and sale.

<p>Strategy B-3: Ensure climate-ready, efficient construction</p>	<ul style="list-style-type: none"> • Action B-3.1: Regularly review and update building health and performance standards. • Action B-3.2: Provide training to local builders on high-efficiency building techniques. • Action B-3.3: Build affordable communal living spaces. • Action B-3.4: Promote home construction building practices that minimize energy use and increase affordability and accessibility, including passive home construction and permanently affordable green social housing. • Action B-3.5: Build net-zero community resiliency hubs.
<p>Strategy B-4: Promote Equitable Building Decarbonization</p>	<ul style="list-style-type: none"> • Action B-4.1: Require all new City buildings to be all-electric and electrify existing City buildings. • Action B-4.2: Build community awareness of heat pumps and electrification opportunities for household equipment. • Action B-4.3: Provide financial assistance and incentives to support community-wide building electrification. • Transition Vicinity Energy’s district cooling system to use renewable energy sources.

FUNDING CONSIDERATIONS

To support implementation in the Homes & Buildings Climate Action Section, Table 68 summarizes potential funding sources to consider in implementing these strategies. Many strategies in this climate action area rely on investment from building owners and developers. Utility incentives improve cost-savings to the owner, with various financing mechanisms available to support implementing capital improvements.

Table 8: Homes & Buildings Potential Funding Sources

Strategy	Strategy Financial	Potential Funding Sources
<p>B-1: Increase building efficiency and health for commercial and public buildings</p>	<p>Cost Savings: Return on investment varies based on extent of project - from 4% for deep energy retrofits to 5.9% for medium retrofits (Nadel, 2020).</p>	<ul style="list-style-type: none"> • Professional Development (B-1.2): Philanthropic opportunities for grants or scholarships • Energy performance contracting for municipal facilities • Spire Commercial Rebates • Evergy Business Energy Savings Program • Missouri Energy Loans - Targeted to K-12 schools, colleges & universities, public water facilities, and not-for-profit hospitals. • Federal tax deductions for commercial buildings – up to \$1.80/SF to owners or

Strategy	Strategy Financial	Potential Funding Sources
		<p>designers of commercial buildings that demonstrate a 50% reduction in energy usage</p> <ul style="list-style-type: none"> • Building Performance Standards Coalition
<p>B-2: Improve the efficiency, affordability, and durability of homes</p>	<p>Cost Savings: Return on investment varies based on projects from 4% for deep energy retrofits to 5.9% for medium retrofits (Nadel, 2020).</p>	<ul style="list-style-type: none"> • Energy-efficiency mortgages • Pay-as-you save financing through Spire and Evergy • Show Me Residential Property-assessed Clean Energy - financing mechanism that allows property owners to fund energy efficiency improvements or renewable energy systems. May not be a long-term opportunity; some concerns about oversight and predatory practices. • Missouri Department of Natural Resources Low Income Weatherization Assistance Program (LIWAP) • Missouri Department of Revenue Show me Green Sales Tax Holiday - Sales of qualifying Energy Star certified new appliances will be exempt from state sales tax during the 'holiday' - usually April 19-25 each year. • Spire home energy rebates • Evergy Income-Eligible Multi-Family program • Residential Energy Efficiency Tax Credit - 10% of cost for installation of energy efficiency measures up to \$500 • Building Performance Standards Coalition
<p>B-3: Ensure climate-ready, efficient construction</p>	<p>Cost Savings: Typical return on investment is between 10-13% (Emerson & Sullivan, 2020).</p>	<ul style="list-style-type: none"> • Federal tax credits for home builders - up to \$2,000 for builders of new energy-efficient homes • Federal tax deductions for commercial buildings - up to \$1.80/SF to owners or designers of commercial buildings that demonstrate a 50% reduction in energy usage • Building Performance Standards Coalition
<p>B-4: Promote equitable building decarbonization</p>	<p>Private Investment: Return on investment varies based on existing system, proposed system, and utility rate structures.</p>	<ul style="list-style-type: none"> • Federal funding may be available • Building Performance Standards Coalition

SHORT-TERM ACTIONS

Priority actions identified by community stakeholders for the years 2022-2025 are detailed by strategy below.

STRATEGY B-1: INCREASE BUILDING EFFICIENCY AND HEALTH FOR COMMERCIAL AND PUBLIC BUILDINGS

Encourage businesses and institutions to upgrade existing buildings to improve energy efficiency and create healthy comfortable places to work and play. High-performing buildings have been shown to spur economic growth by reducing the amount of money businesses spend on fuel (World Bank Group, 2017) as well as promoting the health and wellbeing of occupants by reducing fatigue, headaches, and symptoms of respiratory conditions (International Energy Agency, 2019).

Action B-1.1: Revise current benchmarking program by adding building performance standards.

Continue working to improve the existing commercial benchmarking program, to improve compliance and encourage action to improve benchmarking scores. ENERGY STAR Portfolio Manager could be leveraged as the building performance standard rather than creating a new standard.

<i>Action B-1.1</i>	Details
Implementation Leader	<ul style="list-style-type: none"> Metropolitan Energy Center (MEC) City Staff (Office of Environmental Quality)
Supporting Parties	<ul style="list-style-type: none"> Building Energy Exchange KC Sierra Club Missouri Chapter Other civic advocacy groups Buildings Trades Association CPSC
Timing	<ul style="list-style-type: none"> Immediate (2022)
Equity Considerations	<ul style="list-style-type: none"> Mandatory performance standards, unless adopted by the entire region, may <i>disincentivize</i> economic development inside KCMO city limits. Consider building a local business task force to mitigate any unintended financial strains.
Implementation Steps or Considerations	<ul style="list-style-type: none"> Work with local businesses to increase compliance to existing standards. Revise existing legislation to include performance standards Leverage action B-1.3 to help businesses improve benchmarking scores. Consider a friendly competition with St. Louis to encourage action. Make benchmarking more transparent by creating a map on the City website. Adequately fund audits and enforcement efforts.
Desired Outcomes	<ul style="list-style-type: none"> 90% of buildings are in compliance by 2025.

Action B-1.2: Develop and implement a community-wide, public, and professional education initiative.

Work with local partners and community organizations to continue sharing the importance of energy efficiency, electrification, and the benefits of energy action to local businesses.

<i>Action B-1.2</i>	Details
Implementation Leader	<ul style="list-style-type: none"> Building Energy Exchange KC

Supporting Parties	<ul style="list-style-type: none"> • Metropolitan Energy Center (MEC) • Sierra Club Missouri Chapter • Other civic advocacy groups • CPSC
Timing	<ul style="list-style-type: none"> • Immediate (2022)
Equity Considerations	<ul style="list-style-type: none"> • Prioritize local businesses in areas with lower incomes and multiculturally owned businesses, to help bring the cost savings benefits to historically marginalized communities. • Develop multilingual education and outreach materials, including plain language. • Provide stipends for local organizers and/or community coordinators, to assist with outreach, engagement, and recruitment efforts.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Select priority regions or businesses for targeted outreach. • Identify trusted messengers and communication channels for these businesses. • Provide stipends for neighborhood advocates to talk with small local businesses. • Train building operators of large commercial spaces.

Action B-1.3: Promote funding opportunities for energy efficiency upgrades.

Share funding opportunities for energy efficiency projects with businesses considering capital projects, focusing on projects that are not easily financeable through energy performance contracts. Ensure that businesses and institutions are aware of all existing and expected state and federal funding programs related to energy efficiency.

Action B-1.3	Details
Implementation Leader	<ul style="list-style-type: none"> • Building Energy Exchange KC • Metropolitan Energy Center (MEC)
Supporting Parties	<ul style="list-style-type: none"> • Neighborhood organizations • Sierra Club Missouri Chapter • Other civic advocacy groups • CPSC
Timing	<ul style="list-style-type: none"> • Immediate (2022)
Equity Considerations	<ul style="list-style-type: none"> • Prioritize businesses in areas with lower incomes and multiculturally owned businesses, to help bring the cost savings benefits to historically marginalized communities. • Align green infrastructure projects with energy efficiency upgrades to ensure infrastructure is in place, especially in underdeveloped districts.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Continue to monitor and promote funding opportunities including Commercial Property-assessed Clean Energy (C-PACE) and Evergy’s Standard Incentives and Pay As You Save (PAYS) program. • Identify target properties or regions for outreach. Consider using outcomes from action B-1.1 to inform target properties. • Meet with businesses to share opportunities and walk through the process for securing funding.

Action B-1.4: Increase energy efficiency of municipal facilities.

Building emissions account for 86% of municipal GHG emissions, so to continue working to reduce building energy use is an important step toward zero emissions from municipal operations by 2030. Phasing out natural gas use should be a key focus of these energy efficiency measures as the City works to source all electricity from renewable energy sources through action E-5.1 in alignment with action B-4.1

Action B-1.4	Details
Implementation Leader	<ul style="list-style-type: none">• City Staff (General Services)
Supporting Parties	<ul style="list-style-type: none">• Evergy• Spire• Sierra Club Missouri Chapter• Missouri Dark Skies Initiative• CPSC
Timing	<ul style="list-style-type: none">• Immediate (2022)
Equity Considerations	<ul style="list-style-type: none">• Publicly and transparently track milestones, encouraging community members to follow the lead.
Implementation Steps or Considerations	<ul style="list-style-type: none">• Review energy use profiles from municipal benchmarking data.• Identify priority buildings for energy efficiency upgrades, targeting those with high natural gas use or buildings with comfort or performance issues.• Procure services to complete energy efficiency upgrades.
Desired Outcomes	<ul style="list-style-type: none">• Municipal buildings are 20% more efficient by 2030.

Action B-1.5: Implement energy efficiency requirements for private entities seeking City incentives.

Develop energy efficiency minimums, such as the Zero Code, that private entities must meet to obtain City incentives for development.

Action B-1.5	Details
Implementation Leader	<ul style="list-style-type: none">• City Staff (Office of Environmental Quality)• City Staff (City Planning and Development)• Metropolitan Energy Center (MEC)
Supporting Parties	<ul style="list-style-type: none">• Spire• US Green Building Council Central Plains (USGBC)• Building Energy Exchange KC• CPSC
Timing	<ul style="list-style-type: none">• Immediate (2022)
Equity Considerations	<ul style="list-style-type: none">• Provide technical assistance and other support needed to meet requirements for Minority, Women and Disadvantaged Business Enterprises (MWDDBE).
Implementation Steps or Considerations	<ul style="list-style-type: none">• Provide outreach materials.• Develop an enforcement system of the standards.• If 2021 IECC codes are adopted, consider expanding incentives for builders that go above code for energy efficiency, electrification, solar, and EV readiness.

Action B-1.6: Reduce natural gas system leakage.

Prioritize targeted repairs of large gas leaks and leaks near trees, to reduce methane leakage from the natural gas distribution system and protect trees and landscaping from methane leaks. Create a transparent process for identifying priority leaks and repair timelines.

<i>Action B-1.6</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • Spire
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality) • Mothers Out Front KC • CPSC • PSC
Timing	<ul style="list-style-type: none"> • Immediate (2022)
Equity Considerations	<ul style="list-style-type: none"> • Prioritize repairs in communities with higher air quality concerns. • Consider incorporating emergency power uses into emergency preparedness strategies in the just transition from gas to community solar and other renewables.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Create a publicly facing map of known gas leaks in the distribution system. • Work with City staff and advocacy groups to prioritize leaks based on size and location. • Provide transparency to the leaks repaired and resulting impact.
Desired Outcomes	<ul style="list-style-type: none"> • By 2023, a map is available publicly on Spire’s website showing all known leaks in the distribution system, leak classification, date first discovered, and estimated date of repair. • Large leaks have been prioritized for repair, with all existing large leaks repaired by the end of 2023.

Action B-1.7: Provide proactive support for project implementation.

Actively work with businesses to encourage business owners to identify high-impact energy efficiency projects and support them through implementation. This would include connecting to appropriate resources from Action B-1.3.

<i>Action B-1.7</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • Metropolitan Energy Center (MEC)
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality) • Evergy engineering support program • Building Energy Exchange KC • CPSC
Timing	<ul style="list-style-type: none"> • Near Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Help bring the cost savings benefits to historically marginalized communities. • Provide stipends for local organizers and/or community coordinators to assist with outreach and engagement efforts to help reach historically marginalized communities through a trusted messenger.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Leverage results from Action B-1.1 to identify target businesses that have opportunities for energy efficiency improvements. • Reach out to targeted businesses and work with owners or facility managers to identify projects. • Provide stipends to neighborhood advocates, to help reach small businesses. • Consider this support as part of a broader, one-stop shop - provided by the City for residential and business climate resources - that is adequately staffed.
Desired Outcomes	<ul style="list-style-type: none"> • Achieve 2.1% energy savings per year.

STRATEGY B-2: IMPROVE THE EFFICIENCY, AFFORDABILITY, AND DURABILITY OF HOMES

Help residents, landlords, and property managers make home improvements to increase comfort, reduce utility costs, and ensure homes can withstand the anticipated effects of climate change, including extreme heat and more frequent flooding. These improvements have also been shown to improve indoor air quality and thermal comfort, improving resident health, and reducing healthcare expenses. Together these benefits improve affordability of homes (Kelley, 2021).

Action B-2.1: Provide support for implementing energy efficiency improvements.

Help residents, landlords, and property managers make home improvements to increase comfort, reduce utility costs, and ensure homes can withstand the anticipated effects of climate change, including extreme heat and more frequent flooding. These improvements have also been shown to improve indoor air quality and thermal comfort, improving resident health, and reducing healthcare expenses. Together, these benefits improve affordability of homes (Kelley, 2021).

<i>Action B-2.1</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • Metropolitan Energy Center (MEC) • Building Energy Exchange KC
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Neighborhood and Community Services) • City Staff (Health Department) • City Staff (Office of Environmental Quality) • Children’s Mercy Healthy Homes Program • Neighborhood organizations • CPSC • Community colleges
Timing	<ul style="list-style-type: none"> • Immediate (2022)
Equity Considerations	<ul style="list-style-type: none"> • Prioritize homes in historically disinvested neighborhoods owned by communities impacted by redlining, to help bring the cost savings benefits to historically marginalized communities. • Advocate for tenants’ rights, ensuring they are receiving benefits from building energy upgrades. • Ensure proper oversight so homeowners benefit from building energy upgrades. • Publicly and transparently track process, measures, and milestones.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Continue to monitor funding opportunities, including energy efficiency mortgages. • Identify target regions or neighborhoods for outreach. Consider outcomes from the climate vulnerability analysis to identify neighborhoods most likely to be disproportionately impacted by the effects of climate change. • Consider using paid community ambassadors to help promote energy upgrades in their neighborhoods. • Consider this support as part of a broader, one-stop shop - provided by the City for residential and business climate resources - that is adequately staffed (Action E-2.5). • Provide job training for insulating and retrofitting homes.
Desired Outcomes	<ul style="list-style-type: none"> • 85% of owner-occupied homes, 80% of tenant occupied homes, and 80% of businesses achieve a 20% reduction in electricity usage and a 15% reduction in natural gas usage by 2030.

Action B-2.2: Develop and implement a community-wide education initiative.

Work with local partners and community organizations to continue sharing the importance of energy efficiency and benefits to residents, landlords, and multifamily property owners. Opportunities for engagement could include providing stipends for neighborhood champions, especially in energy burdened neighborhoods.

<i>Action B-2.2</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • Building Energy Exchange KC • Bridging the Gap • UMKC Center for Neighborhoods • Metropolitan Energy Center (MEC)
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality) • CPSC
Timing	<ul style="list-style-type: none"> • Immediate (2022)
Equity Considerations	<ul style="list-style-type: none"> • Prioritize homes in historically disinvested neighborhoods and homes in communities impacted by redlining, to help bring the cost savings benefits to historically marginalized communities. • Ensure proper oversight so homeowners benefit from building energy upgrades. • Provide stipends for local organizers and/or community coordinators to assist with outreach and engagement efforts, to help reach historically marginalized communities through a trusted messenger (see Irvine, California’s Cool Block Program).
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Select priority regions or businesses for targeted outreach. • Identify trusted messengers and communication channels for these neighborhoods. • Coordinate with Action B-2.1 to provide financing options for residents interested in opportunities. • Consider direct install opportunities to help residents start using the benefits.
Desired Outcomes	<ul style="list-style-type: none"> • 85% of owner-occupied homes, 80% of tenant occupied homes, and 80% of businesses achieve a 20% reduction in electricity usage and a 15% reduction in natural gas usage by 2030.

Action B-2.3: Reduce natural gas system leakage.

Prioritize repairs of large gas leaks to reduce methane leakage from the natural gas distribution system. Create a transparent process for identifying priority leaks and repair timelines.

<i>Action B-2.3</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • Spire
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality) • Mothers Out Front KC • CPSC
Timing	<ul style="list-style-type: none"> • Immediate (2022)
Equity Considerations	<ul style="list-style-type: none"> • Prioritize repairs in communities with higher air quality concerns. • Consider incorporating emergency power uses into emergency preparedness strategies in the just transition from gas to community solar and other renewables.

Implementation Steps or Considerations	<ul style="list-style-type: none"> • Create a publicly facing version of the utility’s infrastructure plan. • Work with City staff and advocacy groups to prioritize leaks based on size and location. • Provide transparency to the leaks repaired and resulting impact.
Desired Outcomes	<ul style="list-style-type: none"> • By 2023, a map is available publicly on Spire’s website showing all known leaks in the distribution system, leak classification, date first discovered, and estimated date of repair. • Large leaks have been prioritized for repair, with all existing large leaks repaired by the end of 2023.

Action B-2.4: Require home energy and carbon disclosures at time of lease and sale.

Require any home rented or sold within the city limits to disclose energy use of the home at time of lease and sale, to improve transparency and help inform renters and home buyers. Explore green rental housing policy.

<i>Action B-2.4</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality)
Supporting Parties	<ul style="list-style-type: none"> • Realtors • CPSC • RenewMO
Timing	<ul style="list-style-type: none"> • Near Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Ensure realtors can clearly and transparently explain implications of report to homeowners. Refer to this study for guidance on most effective energy rating. • Ensure local and smaller realty companies have the training and resources needed to implement these changes so they can compete with larger companies with more resources.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Draft and pass legislation to require energy disclosures at time of sale. • Create a standardized format for disclosure. • Train local realtors to explain the disclosures to clients and help inform clients of the long-term implications of the report findings. • See Austin, TX program for example.
Desired Outcomes	<ul style="list-style-type: none"> • Disclosures provided to all renters and buyers by 2024.

STRATEGY B-3: ENSURE CLIMATE-READY, EFFICIENT CONSTRUCTION

Use building code updates and other legislation and incentives to ensure new buildings are designed to be highly efficient, reducing their GHG emissions; are powered by clean electricity; and are designed to withstand anticipated climate change impacts such as extreme heat and flooding. These high efficiency buildings improve the comfort and wellbeing of occupants; the increased upfront construction costs typically pay back within the life of the mortgage, decreasing the overall cost to building owners (Nadel, 2020).

Action B-3.1: Regularly review and update building health and performance standards.

Review building code every three years and update new construction building codes based on outcomes of the review, with the goal of adopting, at minimum, the most recent International Energy Conservation Code (IECC) building performance standards. Provide incentives for heat pumps, induction stoves/cooktops, and solar-ready construction if not already included in updated building codes.

Action B-3.1**Details**

Implementation Leader	<ul style="list-style-type: none"> • Metropolitan Energy Center (MEC) • City Staff (Codes Department)
Supporting Parties	<ul style="list-style-type: none"> • USGBC Central Plains • Kansas City Homebuilders Association • CPSC
Timing	<ul style="list-style-type: none"> • Immediate (2022)
Equity Considerations	<ul style="list-style-type: none"> • Coordinate with B-3.1 to ensure that local builders have the tools to adapt to the new building codes.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Develop a regional task force to review the most recent IECC building code and make recommendations to council on a regular cycle. • Council will review and adopt appropriate recommendations. • Coordinate regionally to help ensure that new construction is not pushed outside city limits to avoid more stringent building codes (increasing urban sprawl and transportation emissions). • Coordinate code updates with neighboring municipalities to coordinate staff training.
Desired Outcomes	<ul style="list-style-type: none"> • Building codes are up to date with current IECC standards.

Action B-3.2: Provide training to local builders on high-efficiency building techniques.

Train small local builders and workforce development programs on updated building code, passive home techniques, heat pump technology, reflective roof coating, and other high efficiency building practices, to help ensure local businesses with smaller margins can compete with larger, national builders.

Action B-3.2**Details**

Implementation Leader	<ul style="list-style-type: none"> • Metropolitan Energy Center (MEC)
Supporting Parties	<ul style="list-style-type: none"> • Neighborhood organizations • Professional builder networks • Building Trades Association • International Brotherhood of Electrical Workers • Kansas City Homebuilders Association • Construction Business Institute, Inc. • Johnson County Contractor Licensing Program • Metropolitan Kansas City Chapter of the International Code Council • U.S. Green Buildings Council Central Plains • Building Performance Institute • Local and regional unions • Community-based organizations • CPSC
Timing	<ul style="list-style-type: none"> • Immediate (2022)
Equity Considerations	<ul style="list-style-type: none"> • Target companies owned by people of color, for training opportunities. • Provide free training or provide scholarships to remove barriers for low-income workers or small businesses. • Consider leveraging job training opportunities for people of color, to help historically marginalized populations benefit from the green job opportunities presented by the Homes & Buildings strategies.

Implementation Steps or Considerations	<ul style="list-style-type: none"> • Leverage professional networks to identify target companies for training opportunities. • Create accessible training leveraging local experts or paid ambassadors. Consider providing training in multiple languages. • Hold trainings and gather feedback from participants. Continue to revise training based on feedback. • Partner with local school districts and other community organizations to identify green jobs training or networking opportunities for interested individuals and organizations.
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Action B-3.3: Build affordable communal living spaces.

Empower neighborhoods to develop vacant lots into communal affordable living spaces or mixed-use properties for neighborhood benefit.

<i>Action B-3.3</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • Neighborhood organizations
Supporting Parties	<ul style="list-style-type: none"> • University of Missouri-Kansas City (UMKC)
Timing	<ul style="list-style-type: none"> • Near Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Ensure development is done in a way that benefits neighborhood residents.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Leverage UMKC program to create a neighborhood entity, to allow the neighborhood to influence the development of projects. • Leverage land bank properties to provide locations for development. • Work with neighborhood residents to determine ideal development opportunities. • Develop the property leveraging available funding. • Consider coordinating with action 3.1 to provide local builders opportunities to demonstrate their new high efficiency and climate resilient building skills.

Action B-3.4: Promote home construction building practices that minimize energy use and increase affordability and accessibility, including passive home construction and permanently affordable green social housing.

Work with developers to promote passive home construction, green building certifications, and other best practices. These construction techniques can decrease energy use and associated costs, offer more livable spaces during power outages, are better at maintaining a comfortable temperature when there is no heating or cooling, and offer natural light.

<i>Action B-3.4</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • Metropolitan Energy Center (MEC)
Supporting Parties	<ul style="list-style-type: none"> • Building Energy Exchange KC • USGBC Central Plains • Kansas City Homebuilders Association • CPSC
Timing	<ul style="list-style-type: none"> • Near Term (2023-2025)

Equity Considerations	<ul style="list-style-type: none"> • Leveraging passive home construction techniques when developing affordable housing will significantly reduce energy costs to residents, thereby decreasing or eliminating their energy burden. • Passive homes can be more expensive in upfront costs, but often pay off over time in reduced energy use. Unique financing mechanisms may be needed to help homeowners support the higher upfront costs. • Prioritize homes with older infrastructure. • Create transparent and multilingual material and resources regarding passive home construction.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Identify developers to target for passive home outreach. • Provide training on benefits of passive home construction as well as how to sell passive homes to prospective buyers. • Coordinate with Action B-2.4 and use home energy disclosures to help show the benefits of passive homes.

Action B-3.5: Build net-zero community resiliency hubs.

Develop net-zero, 48-hour (minimum) community resilience hubs to act as centers for climate resources and education as well as climate disaster recovery. Prioritize retrofits of existing public facilities such as libraries and community centers located in communities found to be especially vulnerable to extreme heat and frequent blackouts/brownouts. Examples of co-located resources include utility and transportation programs, career services, and social service agencies.

Action B-3.5	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality)
Supporting Parties	<ul style="list-style-type: none"> • Community organizations • Evergy • Spire • Building Energy Exchange KC • Mid-America Regional Council (MARC) • Elevate • CPSC
Timing	<ul style="list-style-type: none"> • Near Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Prioritize efforts in areas most impacted by extreme heat, flooding, and other climate risks.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • To be determined.

STRATEGY B-4: PROMOTE EQUITABLE BUILDING DECARBONIZATION

The City will establish an Equitable Building Decarbonization Program to update existing building heating, water heating, and cooking systems to run on clean electricity instead of natural gas. With the drive toward 100% renewable electricity, this eliminates GHG emissions that would be produced by these systems and eliminates indoor air pollutants such as carbon monoxide and particulate matter that can worsen asthma and allergies (Lee & Billimoria, 2021).

Action B-4.1: Require all new City buildings to be all-electric and electrify existing City buildings.

All new construction projects for City facilities should be all-electric to help the City meet its carbon neutral goal as the City works to source all electricity from renewable energy sources through action E-4.1. By building all-electric now, the City will see significant cost savings as compared to retrofitting buildings to all-electric systems later. The City should not install new gas-powered equipment in existing City facilities but instead transition to electric versions with the goal of electrifying all City facilities by 2030.

Action B-4.1	Details
Implementation Leader	<ul style="list-style-type: none"> City Staff (General Services)
Supporting Parties	<ul style="list-style-type: none"> City Staff (Office of Environmental Quality) CPSC
Timing	<ul style="list-style-type: none"> Immediate (2022)
Implementation Steps or Considerations	<ul style="list-style-type: none"> Review City new construction design requirements and update to reflect all-electric construction. Also consider adding requirements for major renovations. Work with designers to ensure that energy efficient construction standards and equipment are used, to help offset the additional electric use of an all-electric building, to manage costs. All-electric heating and cooling systems can offer significant energy savings over conventional equipment. Coordinate with Action B-1.4. Provide training for City staff to maintain and control all-electric systems, to optimize performance and minimize costs. Could be part of a larger education effort in Actions B-1.2 and B-4.2. Review building performance and adjust building standards, as needed, based on experiences.
Desired Outcomes	<ul style="list-style-type: none"> By the end of 2022, all new municipal buildings will be all-electric. By 2030, all municipal facilities will be all-electric.

Action B-4.2: Build community awareness of heat pumps and electrification opportunities for household equipment.

Create an education campaign to help build community awareness of air- and ground-source heat pumps, encouraging building owners who are replacing end-of-life gas systems to choose all-electric options instead. Since space and water heating equipment typically have a useful life of 10-20 years, units being replaced now may not be replaced again before the City's 2040 carbon neutral goal. This campaign should include education of home and business owners on the benefits and costs of choosing a heat pump over conventional heating and cooling equipment, as well as training professionals who sell and service the equipment. In addition to heat pumps, develop education and resources focused on other household equipment such as induction cooking, heat-pump dryers and water heaters, water-sense labeled clothes washers and dishwashers, ENERGY STAR certified refrigerators, and LED lighting.

Action B-4.2	Details
Implementation Leader	<ul style="list-style-type: none"> To be determined.
Supporting Parties	<ul style="list-style-type: none"> CPSC
Timing	<ul style="list-style-type: none"> Immediate (2022)

Equity Considerations	<ul style="list-style-type: none"> Heat pumps have a significantly higher upfront cost than conventional heating and cooling systems. Leverage funding opportunities from Action B-1.3 and B-2.1 to help make these technologies available to residents with lower incomes. Coordinate with Action B-1.2 to provide professional development training for technicians to service heat pumps, prioritizing businesses in areas with lower incomes and businesses owned by people of color. Work with affordable housing organizations and other minor home repair programs to leverage multilingual educational materials and training, as well as outreach and engagement methods.
Implementation Steps or Considerations	<ul style="list-style-type: none"> Develop educational materials, for residents and businesses, on the benefits of all-electric heating and cooling systems. Information from the Department of Energy (DOE) and ENERGY STAR can be used to help develop content. Hold learning sessions for residents interested in heat pumps. Consider tailoring presentation to the audience (e.g., residents, commercial property owners, trades people). Update existing green building and repair programs to provide training for heat pumps and other building electrification efforts.
Desired Outcomes	<ul style="list-style-type: none"> Electric appliances are incorporated into Healthy Homes program.

Action B-4.3: Provide financial assistance and incentives to support community-wide building electrification.

Explore incentive, grant, private capital, climate sales tax and other opportunities to issue low-interest loans, rebates, and incentives to building owners, landlords, property managers, homeowners, and businesses - to help them electrify their buildings with modern, efficient appliances.

Action B-4.3 Details

Implementation Leader	<ul style="list-style-type: none"> To be determined
Supporting Parties	<ul style="list-style-type: none"> City Staff (Office of Environmental Quality) CPSC Midwest Building Decarbonization Coalition
Timing	<ul style="list-style-type: none"> Immediate (2022)
Equity Considerations	<ul style="list-style-type: none"> To be determined.
Implementation Steps or Considerations	<ul style="list-style-type: none"> To be determined.

Action B-4.4: Transition Vicinity Energy's district cooling system to use renewable energy sources.

Work with Vicinity Energy to switch cooling system to clean, renewable energy sources, as they are doing in Boston.

Action B-4.4 Details

Implementation Leader	<ul style="list-style-type: none"> Vicinity Energy
Supporting Parties	<ul style="list-style-type: none"> City Staff (Office of Environmental Quality) Building Energy Exchange KC CPSC
Timing	<ul style="list-style-type: none"> Near Term (2023-2025)

Equity Considerations	<ul style="list-style-type: none">• To be determined.
Implementation Steps or Considerations	<ul style="list-style-type: none">• To be determined.



FOOD

GROWING AND SHARING LOCAL AND NUTRITIOUS FOOD

This Climate Action Section focuses on ensuring that all community members have access to affordable, healthy food, prioritizing local food systems that strengthen our ecosystem and economy to move our community toward our vision for an equitable future. The strategies and short-term actions outlined in this section are summarized in Table 9.

Our Equitable Future: Our food system will promote climate justice by prioritizing food deserts in low-income and historically redlined communities, providing all our neighborhoods with access to fresh, healthy, and affordable food options, and supporting pathways towards self-sufficiency. This includes increasing the opportunities to participate in and reap the benefits of urban agriculture and home gardening, advancing native permaculture practices, integrating natural system and indigenous strategies, reducing the barriers to self-reliance, and supporting a circular food economy.

Table 9: Food Strategies and Actions

Strategy	Short-term Actions
<p>Strategy F-1: Increase production of local food</p>	<ul style="list-style-type: none"> • Action F-1.1: Reduce zoning and policy barriers to local food production. • Action F-1.2: Incentivize local food production and soil regeneration. • Action F-1.3: Transform underutilized urban spaces into food production areas. • Action F-1.4: Provide education about ways to garden, grow food, and advance regenerative soil practices. • Action F-1.5: Establish a coordinator position for food systems planning and community collaboration at the municipal level.
<p>Strategy F-2: Improve healthy and sustainable food access</p>	<ul style="list-style-type: none"> • Action F-2.1: Expand and support programs that increase local food access and promote plant-based food consumption. • Action F-2.2: Expand farm-to-table/school/City programs and local food product purchasing. • Action F-2.4: Support and expand food waste reduction, food recovery, and emergency food transport and storage. • Action F-2.5: Establish green restaurant recognition and incentives. • Action F-2.6: Support the development of food hubs.

FUNDING CONSIDERATIONS

To support implementation in the Food Climate Action Section, Table 610 summarizes potential funding sources to consider in implementing these strategies. This action area is generally funded through private investment in local agriculture and food businesses with support through local and federal grants, health foundations, and community-based philanthropy.

Table 10: Food Potential Funding Sources

Strategy	Strategy Financial	Potential Funding Sources
F-1: Increase production of local food	<p>Private Investment: Focused on improving resilience and carbon sequestration.</p> <p>Private investment: Focused on improving resilience and carbon sequestration.</p>	<ul style="list-style-type: none"> • Big Green Learning Grants: Apply for a Learning Garden in the Kansas City area • American Public Gardens Association: Urban Agriculture Resilience Program • Missouri Department of Agriculture: Food Insecure Urban Agriculture Matching Grant
F-2: Improve healthy and sustainable food access	<p>Private Investment: Focused on improving resilience and carbon sequestration.</p> <p>Private investment: Focused on improving resilience and carbon sequestration.</p>	<ul style="list-style-type: none"> • U.S. Department of Agriculture: Farm to School Grant Program • Missouri Department of Agriculture: Value-Added Agriculture Farm to Table Grant Program; Retail Store Promotion Matching Grant Program for promoting local foods; Food Desert Agriculture Matching Grant Program • Double Up Heartland Collaborative: Double Up Food Bucks Program for grocery stores, farmers markets, and farm stands • Health Forward Foundation: Healthy Communities Grant

SHORT-TERM ACTIONS

Priority actions identified by community stakeholders for the years 2022-2025 are detailed by strategy below.

STRATEGY F-1: INCREASE PRODUCTION OF LOCAL FOOD

Work at all levels of the food system to increase the production, availability, and consumption of locally grown food. By expanding our local food network, we are keeping money in our community, reducing food transportation emissions, and can improve local ecosystem health through regenerative farming practices.

Action F-1.1: Reduce zoning and policy barriers to local food production.

Review codes, permitting, and policy requirements to encourage and remove barriers to urban agriculture, regenerative agriculture, community gardens, food forests, and soil regeneration.

Action F-1.1	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (Planning and Development) • City Staff (Office of Environmental Quality)

Supporting Parties	<ul style="list-style-type: none"> • Greater Kansas City Food Policy Coalition • Cultivate KC • Antioch Urban Growers • Bridging the Gap • University of Missouri Kansas City • Kansas State University
Timing	<ul style="list-style-type: none"> • Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> • Consider impacts and challenges for community members who do not own property (e.g., renters) • Prioritize areas with lower incomes and abandoned properties throughout the city that are facing food apartheid.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Review the recommendations in From the Ground Up: Planning and Zoning for Urban Agriculture in Greater Kansas City. • Complete an inventory of existing urban agriculture and food system codes and policies, identifying potential barriers, gaps, and challenges (e.g., detached structures like hoop houses, compost pile sizes, definitions of terms, animal husbandry). • Coordinate integration of recommendations into the City’s Comprehensive Plan and subsequent zoning and development code updates. • Monitor and support any state legislation related to Homeowners Association codes and covenants (e.g., preventing or allowing front yard gardens).

Action F-1.2: Incentivize local food production and soil regeneration.

Continue and expand incentives to encourage urban agriculture, community gardens, food forests, and soil regeneration.

Action F-1.2	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (KC Water) • City Staff (Planning and Development) • City Staff (Office of Environmental Quality)
Supporting Parties	<ul style="list-style-type: none"> • Greater Kanas City Food Policy Coalition • Cultivate KC • Antioch Urban Growers • The Giving Grove • Missouri Organic • Bridging the Gap • Sierra Club Missouri Chapter • Kansas City Community Gardens
Timing	<ul style="list-style-type: none"> • Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> • Prioritize areas with lower incomes and abandoned properties throughout the city that are facing food apartheid. • Ensure that soil regeneration is incorporated in all land conservation efforts. • Consider providing free soil quality tests in areas facing neglect or land abandonment, in old industrial districts, and for new local food establishments. • Work with Indigenous communities to gain knowledge of ancestral practices of food production, soil regeneration, and environmental stewardship.

Implementation Steps or Considerations	<ul style="list-style-type: none"> • Inventory existing urban agriculture, community gardens, and soil health incentives and opportunities. • Explore opportunities to offer new and/or enhanced incentives (e.g., residential sewer allowance credit, discounted price for compost, reduced irrigation rates).
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Action F-1.3: Transform underutilized urban spaces into food production areas.

Transform lawns, vacant lots, rooftops, flood prone areas, and other underutilized urban spaces into gardens, natural landscapes, urban forests, and community spaces to support food production and soil regeneration.

Action F-1.3	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (Parks and Recreation) for City properties and programming • Cultivate KC • Antioch Urban Growers
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Planning and Development) • City Staff (Office of Environmental Quality) • Greater Kanas City Food Policy Coalition • The Giving Grove • Missouri Organic • Sierra Club Missouri Chapter • Urban Neighborhood Initiative • Land banks
Timing	Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> • Consider possible backlash of gentrification in all new development as well as other issues associated with new neighborhood amenities. • Prioritize areas with lower incomes and abandoned properties throughout the city that are facing food apartheid. • Consider providing free soil quality tests in areas facing neglect or land abandonment, in old industrial districts, and for new local food establishments. • Align development with all land conservation efforts, ensuring urban farms and community gardens are diverse, native, organic, and contributing to carbon sequestration. Consider possible barriers related to requiring new forms to meet these conservation efforts by assisting with upfront costs. • Work with Indigenous communities to gain knowledge of ancestral practices of food production, soli regeneration, and environmental stewardship.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Continue to support and recognize the many partners working on these initiatives. • Convene a periodic check-in with organizations associated with food production and soil health, to identify areas of potential collaboration and coordination. • Inventory existing City food production sites and programming. • Identify potential sites and programs for increased food production and soil health initiatives on City properties. • Work with land banks to make lots accessible (available and affordable) for people and neighborhood organizations, especially those who live nearby, to purchase in order to grow food and create community green spaces. • Explore other tools to protect urban farm and garden land from development.

Action F-1.4: Provide education about ways to garden, grow food, and advance regenerative soil practices.

Coordinate across organizations to provide comprehensive education to community members about gardening, food production, soil microbes, composting, and pesticide/herbicide/fertilizer reduction.

Action F-1.4	Details
Implementation Leader	<ul style="list-style-type: none"> • Grow Food Not Lawns (KC Chapter) • Missouri Organic • Cultivate KC • Antioch Urban Growers • KC Farm School • Kanas City Community Gardens
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Parks and Recreation) for City properties and programming • City Staff (Office of Environmental Quality) • Greater Kanas City Food Policy Coalition • KC Library • The Giving Grove • Sierra Club Missouri Chapter • Neighborhood organizations
Timing	<ul style="list-style-type: none"> • Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> • Develop multilingual educational materials, considering cultural differences and other accessibility issues. • Incorporate climate and health benefits into educational materials around healthy, diverse, and organic food production. • Work with Indigenous communities to gain knowledge of ancestral practices of food production, soil regeneration, and environmental stewardship.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Continue to support and recognize the many partners working on these initiatives. • Convene a periodic check-in with organizations associated with urban agriculture and soil health educators to identify areas of potential collaboration and coordination. • Create a City webpage to list Kansas City organizations working on urban agriculture and soil health education. • Create a shared calendar and resource library for education-related collaboration.

Action F-1.5: Establish a coordinator position for food systems planning and community collaboration at the municipal level.

Create a City staff position, ambassador, and/or advisory board/committee to coordinate food systems planning and help collaborate across City departments and organizations on food and soil matters.

Action F-1.5	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (Neighborhoods and Community Services)
Supporting Parties	<ul style="list-style-type: none"> • Greater Kanas City Food Policy Coalition • Cultivate KC • Antioch Urban Growers • Bridging the Gap

	<ul style="list-style-type: none"> • University of Missouri Kansas City • Kansas State University • Sierra Club Missouri Chapter
Timing	<ul style="list-style-type: none"> • Near Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Coordinator needs to elevate and support the work being done by others and avoid putting more work on impacted organizations. • Provide Diversity, Equity, Accessibility, and Inclusion (DEAI) training for coordinator position and/or board/committee, especially regarding areas around the city disproportionately impacted by food apartheid and other intersectional components that may strengthen their work. • If advisory board is developed, ensure it is made up of multicultural, multilingual leaders from neighborhoods most impacted by food apartheid.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • To be determined.

STRATEGY F-2: IMPROVE HEALTHY AND SUSTAINABLE FOOD ACCESS

Expand access to affordable, healthy, and sustainable food through programs, infrastructure, and outreach. Prioritize efforts in neighborhoods within food deserts and areas with high concentrations of unhealthy food options.

Action F-2.1: Expand and support programs that increase local food access and promote plant-based food consumption.

Continue to support and provide education about and seek opportunities to expand programs that improve local food access for people with lower or moderate incomes (e.g., food pantries, double-up food bucks, reducing barriers to being able to accept EBT).

Action F-2.1	Details
Implementation Leader	<ul style="list-style-type: none"> • Greater Kanas City Food Policy Coalition • City Staff (Health Department)
Supporting Parties	<ul style="list-style-type: none"> • Antioch Urban Growers • Cultivate KC Food Access Team • KC Farm School • Kanbe's Markets
Timing	<ul style="list-style-type: none"> • Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> • Incorporate climate and health benefits into educational materials around healthy, diverse, and organic food production. • Strengthen relationships between local produce venders and build capacity into their work to get healthy food into areas most vulnerable to food apartheid. • Prioritize programs such double-up food bucks and local farmers markets in areas with lower incomes and abandoned properties throughout the city that are facing food apartheid. • Provide multilingual, multicultural programs and educational materials.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Develop an online hub with up-to-date information on healthy, locally grown food availability and educational resources from libraries, schools, and other partners.

	<ul style="list-style-type: none"> Expand mobile market services across the city to deliver healthy, locally sourced food to disenfranchised neighborhoods and food deserts. Provide funding to already existing mobile market services (e.g., Truman Medical Center’s harvest mobile market) to continue services during emergencies that might disrupt mobile market services.
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Action F-2.2: Expand farm-to-table/school/City programs and local food product purchasing.

Continue to support and expand efforts to create markets for local food products, including City government and other private and public sector purchasing (e.g., schools, businesses).

Action F-2.2	Details
Implementation Leader	<ul style="list-style-type: none"> Varies by program City Staff (Health Department)
Supporting Parties	<ul style="list-style-type: none"> KC Food Hub Boys Grow Kansas City Public Schools
Timing	<ul style="list-style-type: none"> Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> Incorporate climate and health benefits into educational materials around healthy, diverse, and organic food in schools, as well as affordable ways to access them. Make sure the programs and materials are multilingual and multicultural. Strengthen relationships between local produce vendors and build a market to expand their work to get healthy food into under-resourced schools. Create incentives for school programs joining the circular economy. Look for ways the City can set up locally owned businesses and farms/community gardens for financial success (e.g., subsidies, vouchers).
Implementation Steps or Considerations	<ul style="list-style-type: none"> Ensure programs include a variety of nutritionally-sound and plant-based food options.

Action F-2.3: Explore and provide incentives for more grocery stores and store purchases of local foods.

Reduce or eliminate food deserts and food swamps by incentivizing grocery stores and food retailers to locate in areas without adequate food access. Consider linking incentives to supply of local food products.

Action F-2.3	Details
Implementation Leader	<ul style="list-style-type: none"> City Staff (Planning and Development) City Staff (Health Department)
Supporting Parties	<ul style="list-style-type: none"> Cultivate KC Food Access Team
Timing	<ul style="list-style-type: none"> Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> Align green infrastructure projects such as sidewalk and bike lane expansions to connect to local business development (e.g., grocery stores), to increase accessibility without use of a personal motor vehicle. Prioritize development in areas facing food apartheid. Work with nonprofit organizations that support and encourage local entrepreneurship among historically marginalized communities by providing pipelines to grocery store ownership.

	<ul style="list-style-type: none"> • Incorporate universal design in existing and new grocery stores to increase access, help senior citizens age in place successfully, and ultimately encourage more diverse groups to buy local. • Encourage and provide educational materials around community-owned grocery stores and other co-ops.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • To be determined.

Action F-2.4: Support and expand food waste reduction, food recovery, and emergency food transport and storage.

Support and build on existing food recovery efforts and explore new incentives and programs such as incentives to increase food sharing from private gardening and donations of lower-grade food from farmers.

Action F-2.4	Details
Implementation Leader	<ul style="list-style-type: none"> • Harvesters Food Bank • City Staff (Health Department)
Supporting Parties	<ul style="list-style-type: none"> • Missouri Organic • After the Harvest • Grocery Stores • Schools • Hospitals • Restaurants
Timing	<ul style="list-style-type: none"> • Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> • Work with local coffee shops and schools to incorporate free food hubs for food recovery and proper waste disposal. • Prioritize the expansion of existing community gardens on abandoned or neglected properties to incorporate free food hubs for food sharing, food recovery, and proper waste disposal. • Incorporate food sharing and recovery programs for businesses, organizations, and shelters that support people facing homelessness.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Consider adopting and encouraging the use of a website or application to reduce food waste in the city in order to reroute food from landfills to tables - at a cost-effective price (e.g., Too Good to Go app, Save the Food)

Action F-2.5: Establish green restaurant recognition and incentives.

Publicly recognize restaurants and food retailers that offer plant-based meals, locally sourced products, etc. Explore the creation of a “Grown in KCMO” logo for restaurants, a possible self-certification process, and a publicly accessible registry of businesses and their local goods and products.

Action F-2.5	Details
Implementation Leader	<ul style="list-style-type: none"> • To be determined.
Supporting Parties	<ul style="list-style-type: none"> • To be determined.
Timing	<ul style="list-style-type: none"> • Near Term (2023-2025)

Equity Considerations	<ul style="list-style-type: none"> • Provide access to multilingual certifications, as well as educational outreach, to inform business owners of the opportunity as well as the financial incentives for pursuing the program (e.g., one year free to maintain certification). This idea faces the possibility of being inequitable if there is not a direct, affordable pipeline to access produce from local farmers. Also, consider family grants or stipends for businesses that depend on their families for employment. • Assist immigrant-owned businesses in gaining access to affordable, locally grown produce by creating a circular food economy and providing financial incentives for entering the new market. • Create clear routes for small, local businesses to attain property to grow their own produce in ways that lead directly to property ownership. • Look for ways the City can set up locally owned businesses and farms/community gardens for financial success (e.g., subsidies, vouchers).
Implementation Steps or Considerations	<ul style="list-style-type: none"> • To be determined.

Action F-2.6: Support the development of food hubs.

Support locally owned, multicultural/ethnic business to build out food hubs in communities with lower incomes (e.g., Independence Ave, Northeast KC, East KC) and form strategic partnerships with local grocery stores, farmers, and non-profit organizations (e.g., After the Harvest).

Action F-2.6	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (Health Department)
Supporting Parties	<ul style="list-style-type: none"> • Northeast Alliance Together (NEAT)
Timing	<ul style="list-style-type: none"> • Near Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Work with local coffee shops and schools to incorporate free food hubs for food recovery and proper waste disposal. • Prioritize the expansion of existing community gardens on abandoned or neglected properties to incorporate free food hubs for food sharing, food recovery, and proper waste disposal. • Incorporate food sharing and recovery programs for businesses, organizations, and shelters that support people facing homelessness.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • To be determined.



WASTE & MATERIALS

REDUCING OUR IMPACT AND REUSING OUR RESOURCES

This Climate Action Section focuses on transforming our waste and materials systems into a circular economy, giving new life to materials after their first use through reuse, composting, and recycling - to help create our vision for our equitable future. The strategies and short-term actions outlined in this section are summarized in Table 11.

Our Equitable Future: Our waste and materials system will promote climate justice by keeping our environment healthy, clean, and safe for our next generation. This includes addressing illegal dumping, expanding access to composting, and supporting a zero-waste, circular economy.

Table 11: Waste & Materials Strategies and Actions

Strategy	Short-term Actions
<p>Strategy W-1: Divert waste from the landfill and reduce illegal dumping</p>	<ul style="list-style-type: none"> • Action W-1.1: Expand City government recycling and green purchasing. • Action W-1.2: Identify avenues for monitoring and preventing illegal dumping. • Action W-1.3: Update the Comprehensive Solid Waste Management Plan. • Action W-1.4: Expand and increase recycling education and participation in curbside recycling program. • Action W-1.5: Promote waste reduction and diversion programs and advocacy. • Action W-1.6: Provide more neighborhood and community solid waste disposal, composting, and recycling sites, programs, and events. • Action W-1.7: Explore policies to limit single-use plastic, polystyrene foam, and other hard-to-recycle single use items. • Action W-1.8: Prohibit construction of pyrolysis plants within city limits. • Action W-1.9: Establish requirements for waste diversion at all City-permitted events.
<p>Strategy W-2: Divert organic waste from the landfill through composting</p>	<ul style="list-style-type: none"> • Action W-2.1: Expand and promote small- and large-scale composting throughout Kanas City.

<p>Strategy W-3: Reduce waste and embodied carbon by expanding the reuse and repair economy</p>	<ul style="list-style-type: none"> • Action W-3.1: Green the supply chain, encouraging recycled and other environmentally preferable products and services. • Action W-3.2: Create a network of repair cafes and lending libraries to promote the fixing and sharing economy. • Action W-3.3: Explore policy options for reducing carbon in construction materials used in City operations. • Action W-3.4: Establish a zero-waste recognition and incentive program.
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FUNDING CONSIDERATIONS

To support implementation in the Waste & Materials Climate Action Section, Table 12 summarizes potential funding sources to consider in implementing these strategies. Municipal funding plays a large role in this strategy, using current funding channels to adjust how waste is treated in the city; but grassroots composting and repair efforts will also be key.

Table 12: Waste Potential Funding Sources

Strategy	Strategy Financial	Potential Funding Sources
<p>W-1: Divert waste from the landfill and reduce illegal dumping</p>	<p>Public investment: Focused on reducing life-cycle carbon emissions.</p>	<ul style="list-style-type: none"> • MARC Solid Waste Management District Grants for waste reduction, recycling, and education • Missouri Department of Natural Resources Waste and Recycling Financial Opportunities <ul style="list-style-type: none"> ○ Reimbursement for disposal costs for scrap tires collected during voluntary cleanups ○ Grants to develop scrap tire markets or encourage reuse in creating new products
<p>W-2: Divert organic waste from the landfill through composting</p>	<p>Public investment: Focused on carbon sequestration.</p>	<ul style="list-style-type: none"> • MARC Solid Waste Management District Grants for waste reduction
<p>W-3: Reduce waste and embodied carbon by expanding the reuse and repair economy</p>	<p>Private investment: Focused on reducing life-cycle carbon emissions.</p>	<ul style="list-style-type: none"> • Philanthropic opportunity to support neighborhood workshops and professional development training.

SHORT-TERM ACTIONS

Priority actions identified by community stakeholders for the years 2022-2025 are detailed by strategy below.

STRATEGY W-1: DIVERT WASTE FROM THE LANDFILL AND REDUCE ILLEGAL DUMPING

Conduct a planning process to improve all parts of Kansas City’s solid waste system. Identify policies, programs, and infrastructure projects to support illegal dumping prevention, construction and demolition waste management, and curbside recycling. As part of this coordinated planning process, identify ways for Kansas City government to lead by example.

Action W-1.1: Expand City government recycling and green purchasing.

Leverage the City recycling ambassadors, green procurement grant, and other initiatives to expand City government recycling and green purchasing.

<i>Action W-1.1</i>	Details
Implementation Leader	<ul style="list-style-type: none"> City Staff (General Services Procurement Division) City Staff (Public Works)
Supporting Parties	<ul style="list-style-type: none"> Solid waste service providers KC Green Teams
Timing	<ul style="list-style-type: none"> Immediate (already underway)
Implementation Steps or Considerations	<ul style="list-style-type: none"> To be determined.

Action W-1.2: Identify avenues for monitoring and preventing illegal dumping.

Continue establishing a regional group to address illegal dumping and explore opportunities to partner with local organizations (e.g., My Region Wins!) to address this issue at the neighborhood level.

<i>Action W-1.2</i>	Details
Implementation Leader	<ul style="list-style-type: none"> City Staff (Public Works) My Region Wins!
Supporting Parties	<ul style="list-style-type: none"> Solid waste service providers MARC Solid Waste Management District
Timing	<ul style="list-style-type: none"> Immediate (already underway)
Implementation Steps or Considerations	<ul style="list-style-type: none"> To be determined.

Action W-1.3: Update the Comprehensive Solid Waste Management Plan.

Leverage relevant parts of the previous plan and update the Solid Waste Management Plan to address topics including waste reduction and diversion goals, citywide composting, and increased recycling for municipal operations and the community (including alignment around a zero-waste goal). Adopt a citywide goal of 80% waste diversion from landfills by 2025 as previously set in the 2008 Climate Protection Plan.

<i>Action W-1.3</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (Public Works)
Supporting Parties	<ul style="list-style-type: none"> • Solid waste service providers • Community groups and members • Environmental organizations
Timing	<ul style="list-style-type: none"> • Near Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Prioritize areas within the city most burdened by current solid waste program, such as neighborhoods facing illegal dumping, house abandonment, etc.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Consider adopting and regularly updating a citywide waste reduction target. • Update the plan on a regular basis as portions are completed or additional changes are needed.

Action W-1.4: Expand and increase recycling education and participation in curbside recycling program.

Identify avenues to increase residential participation in curbside recycling through targeted education and marketing efforts; explore opportunities to expand the program for rental households and multifamily properties (e.g., free or discounted recycling bins, expanded education about grants for bin purchases). Provide curbside recycling for rental households and multifamily properties; incentivize multifamily properties to provide recycling services.

<i>Action W-1.4</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • Solid waste service providers
Supporting Parties	<ul style="list-style-type: none"> • City Staff (Public Works) • MARC Solid Waste Management District
Timing	<ul style="list-style-type: none"> • Near Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Expand and make government recycling programs accessible in multifamily housing and other multiunit complexes without existing recycling options. • Hire local community organizers/coordinators to lead outreach and engagement efforts around proper recycling; increase accessibility. • Develop grants to provide neighborhoods with free curbside recycling bins. Overall, increase accessibility and affordability of recycling bins.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Develop residential bin for electronic waste and another for other hard-to-recycle materials. This requires having a method in the Solid Waste Plan to address hard-to-recycle materials and e-waste. • Explore ways to incentivize developers of multifamily properties to provide curbside recycling services.

Action W-1.5: Promote waste reduction and diversion programs and advocacy.

Build on regional efforts (led by MARC Solid Waste Management District), and the efforts of local organizations (e.g., KC Can, Bridging the Gap), to promote Kansas City-specific waste reduction and diversion programs and opportunities (e.g., how to compost, recycling center information). Create and socialize a hub of information to help people find the waste-related resources they may need, including resources for the business community, and help navigating solid waste contracts.

<i>Action W-1.5</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (Public Works) • Solid waste service providers
Supporting Parties	<ul style="list-style-type: none"> • KC Drawdown Society • Ripple Glass • Mid-America Regional Council (MARC) Solid Waste Management District • KC Can Compost • Bridging the Gap • My Region Wins!
Timing	<ul style="list-style-type: none"> • Near Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Hire local community organizers and coordinators to lead neighborhood outreach and engagement efforts about proper waste reduction and diversion. • Ensure programs and educational materials are multilingual and use plain language.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Develop residential bin for electronic waste and another for other hard-to-recycle materials. This will require having a method in the Solid Waste Plan to address hard-to-recycle materials and e-waste. • Invest in recycling educational services, such as providing educational tools to businesses and schools on what is recyclable and what is compostable. • Establish a zero-waste restaurant and business recognition program and incentives. Explore the creation of a “Zero-Waste KC” logo for restaurants and businesses that take a zero-waste approach, (e.g., providing compostable or reusable packaging instead of plastic or polystyrene foam packaging).

Action W-1.6: Provide more neighborhood and community solid waste disposal, composting, and recycling sites, programs, and events.

Coordinate across service providers and organizations to expand existing waste-related efforts (e.g., hard-to-recycle events, household hazardous waste events, neighborhood clean-up events) to provide more localized waste reduction and diversion opportunities for neighborhoods and residents.

<i>Action W-1.6</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (Public Works) • City Staff (Neighborhoods and Community Services)
Supporting Parties	<ul style="list-style-type: none"> • Mid-America Regional Council (MARC) Solid Waste Management District • KC Can Compost • Ripple Glass • Bridging the Gap • My Region Wins! • Missouri Organic
Timing	<ul style="list-style-type: none"> • Near Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • Expand and make government recycling programs accessible in multifamily housing and other multi-unit complexes without existing recycling options. • Hire local community organizers and coordinators to lead neighborhood outreach and engagement efforts about proper recycling and to increase accessibility. • Develop grants to provide neighborhoods with free curbside recycling and composting bins. Overall, increase accessibility and affordability of recycling bins.

Implementation Steps or Considerations	<ul style="list-style-type: none"> • Develop residential bin for electronic waste and another for other hard-to-recycle materials. This will require having a method in the Solid Waste Plan to address hard-to-recycle materials and e-waste. • Develop a city hub, such as at local farmers markets, for compost disposal. • Work with and build capacity around nonprofits and businesses currently assisting with residential compost and soil restoration.
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Action W-1.7: Explore policies to limit single-use plastic, polystyrene foam, and other hard-to-recycle single use items.⁹

Explore policies for public facilities (e.g., schools, universities, government) and encourage private facilities to provide options to ban single-use plastic or polystyrene foam plates or trays, food containers, or food packaging - to decrease landfill waste. Advocate for reversal of state-level single-use preemption policies.

<i>Action W-1.7</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality)
Supporting Parties	<ul style="list-style-type: none"> • City Staff (General Services Procurement Division) • Kansas City Public Schools
Timing	<ul style="list-style-type: none"> • Near Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • To be determined.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • To be determined.

Action W-1.8: Prohibit construction of pyrolysis plants within city limits.¹⁰

Enact a policy to prohibit the construction of pyrolysis plants (e.g., plastic burning facilities) within city limits, to protect air quality and support more sustainable waste practices like reusing, composting, and recycling.

<i>Action W-1.8</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • City Staff (Office of Environmental Quality)
Supporting Parties	<ul style="list-style-type: none"> • Environmental organizations
Timing	<ul style="list-style-type: none"> • Near Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • To be determined.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • To be determined.

⁹ New action elevated by CPSC during the plan review process.

¹⁰ New action elevated by CPSC during the plan review process.

Action W-1.9: Establish requirements for waste diversion at all City-permitted events. ¹¹

Establish a requirement for waste collection and diversion for all City-permitted events (e.g., marathons, parades). Events should provide separate collection for waste and recycling and have volunteers/staff positioned at each collection point to answer questions and control contamination.

Action W-1.9	Details
Implementation Leader	<ul style="list-style-type: none">• City Staff (Office of Environmental Quality)
Supporting Parties	<ul style="list-style-type: none">• To be determined
Timing	<ul style="list-style-type: none">• Near Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none">• To be determined.
Implementation Steps or Considerations	<ul style="list-style-type: none">• To be determined.

STRATEGY W-2: DIVERT ORGANIC WASTE FROM THE LANDFILL THROUGH COMPOSTING

Support the development of infrastructure and programs that support composting on-site and compost collection by waste haulers. Nearly half of the trash in the U.S. is biodegradable material that could be composted (U.S. Environmental Protection Agency, 2020). Composting provides an alternative to landfill disposal and restores soil to produce healthier food.

Action W-2.1: Expand and promote small- and large-scale composting throughout Kansas City.

Coordinate across composting and solid waste service providers and community organizations to introduce and expand composting services throughout Kansas City. Work to remove barriers to composting (e.g., compost pile size limitations) and create new localized opportunities to drop off and distribute organic material (e.g., compost kiosks, food waste drop-off).

Action W-2.1	Details
Implementation Leader	<ul style="list-style-type: none">• City Staff (Public Works)• City Staff (Neighborhoods and Community Services)• KC Can Compost• Missouri Organics• KC Drawdown Society• KC Compost Collective• Compost Connection
Supporting Parties	<ul style="list-style-type: none">• Mid-America Regional Council (MARC) Solid Waste District• Bridging the Gap• My Region Wins!• Land bank properties• Community gardens• Grocery stores
Timing	<ul style="list-style-type: none">• Immediate (already underway)

¹¹ New action elevated by CPSC during the plan review process.

Equity Considerations	<ul style="list-style-type: none"> • Hire local community organizers and coordinators to lead outreach and engagement efforts in neighborhoods about how to compost properly. • Provide composting services for the urban core and multifamily properties.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Work with and build capacity around nonprofits and businesses currently assisting with residential compost and soil restoration. Encourage the City to subsidize these efforts. • Develop grants to provide neighborhoods free composting. • Develop compost kiosk for local farmers markets and similar venues/events for residential compost disposal. • Consider opportunities for schools, landbanks, and existing community gardens to develop on-site composting. • Explore ways to use compost for City-managed landscapes. • Consider incentivizing restaurants and businesses to switch to compostable materials to increase demand for composting services.

STRATEGY W-3: REDUCE WASTE AND EMBODIED CARBON BY EXPANDING THE REUSE AND REPAIR ECONOMY

Cultivate a reuse and repair economy to reduce material consumption, increase waste diversion, and create green jobs. For every can of trash, 87 cans worth of materials come from manufacturing and packaging, in addition to the energy and water used (Cassara, Rogich, Wernick, & Miranda, 2008) in the manufacturing and packaging process. By reusing materials, we are also reducing the embodied carbon or greenhouse gas emissions generated from manufacturing, transportation, use, and disposal of materials. Building the reuse and repair economy - including lending libraries, subscription services, and community repair workshops - will save resources, reinvest money in the community, and build local capacity.

Action W-3.1: Green the supply chain, encouraging recycled and other environmentally preferable products and services.

Use the trash stream to stimulate a circular economy and work on market development for recycling products to create a stable collection system.

<i>Action W-3.1</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • Foundation for Regeneration • Mid-America Regional Council (MARC) Solid Waste Management District
Supporting Parties	<ul style="list-style-type: none"> • ScrapsKC
Timing	<ul style="list-style-type: none"> • Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> • Ensure unintended consequences for developing a circular economy are considered in greening the supply chain, considering businesses and neighborhoods that are not currently included (such as neighborhoods facing consequences of illegal dumping due to two-bag policy).
Implementation Steps or Considerations	<ul style="list-style-type: none"> • Establish a zero-waste restaurant and business recognition program and incentives. Explore the creation of a “Zero-Waste KC” logo for restaurants and businesses that take a zero-waste approach, such as using recycled materials and other environmentally preferable products for packaging.

Action W-3.2: Create a network of repair cafes and lending libraries to promote the fixing and sharing economy.

Explore what role library branches and other community organizations and spaces can play in supporting the introduction and expansion of lending libraries, repair cafes, resource pantries, and more. Build on the successes and lessons learned from pop-up cafes and events, and coordinate with neighborhood groups to conceptualize and implement lending and repair projects and programs.

<i>Action W-3.2</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • Kansas City Public Library • My Region Wins! • Green Works in Kansas City
Supporting Parties	<ul style="list-style-type: none"> • Scraps KC • Re.Use.Full • TechGrove • Buy Nothing Groups • Habitat for Humanity
Timing	<ul style="list-style-type: none"> • Immediate (already underway)
Equity Considerations	<ul style="list-style-type: none"> • Consider the resources neighborhoods need but may not have access to (e.g., seed libraries, cafes) and create clear methods for making those resources accessible. • Hire local community organizers and coordinators to lead outreach and engagement efforts around developing repair cafes in areas with lower incomes, as well as to help build a coalition of businesses/organizations that can support them. • Incorporate repair cafes and lending libraries for businesses, organizations, and shelters that support people facing homelessness. • Work with churches to incorporate repair cafes and lending libraries.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • To be determined.

Action W-3.3: Explore policy options for reducing carbon in construction materials used in City operations.¹²

Consider adopting a policy to increase the reuse of materials in City construction activities.

<i>Action W-3.3</i>	Details
Implementation Leader	<ul style="list-style-type: none"> • To be determined
Supporting Parties	<ul style="list-style-type: none"> • To be determined
Timing	<ul style="list-style-type: none"> • Near Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none"> • To be determined.
Implementation Steps or Considerations	<ul style="list-style-type: none"> • To be determined.

¹² New action elevated by CPSC during the plan review process.

Action W-3.4: Establish a zero-waste recognition and incentive program. ¹³

Develop a citywide recognition program to highlight businesses and developments that certify as zero-waste.

Action W-3.4	Details
Implementation Leader	<ul style="list-style-type: none">• To be determined
Supporting Parties	<ul style="list-style-type: none">• To be determined
Timing	<ul style="list-style-type: none">• Near Term (2023-2025)
Equity Considerations	<ul style="list-style-type: none">• To be determined.
Implementation Steps or Considerations	<ul style="list-style-type: none">• To be determined.

¹³ New action elevated by CPSC during the plan review process.

MUNICIPAL IMPLEMENTATION RESOURCES FOR SHORT-TERM ACTIONS

The following actions have been identified as City-led initiatives or initiatives where the City will have a large supporting role. They are listed with the anticipated costs and staff time requirements. Hover over the action titles and press Ctrl + Click to go to the implementation plan for more details.

MOBILITY

Action	City's Role	Capital Cost to City	Employee Time
Action M-1.1: Promote development patterns that prevent sprawl and support alternative modes of transportation, including road diets and traffic calming.	Determine and implement policy mechanisms.	None	👤 👤
Action M-1.2: Expand the use of green development practices.	Update development review process.	None	👤 👤
Action M-2.1: Continue applying the Complete Streets policy.	Apply ordinance as part of planned transportation improvements.	None	👤
Action M-2.2: Work toward a system of protected and connected bike lanes, greenways, and sidewalks, that use universal design principles.	Coordinate with partners to ensure transportation improvements support the overall network.	None	👤
Action M-2.3: Invest 3% of City transportation infrastructure expenditures in safe bicycle and pedestrian infrastructure.	Update the budget, plan for projects, and construct improvements.	\$\$\$	👤 👤
Action M-2.4: Explore programs to provide electric micro mobility options for City employees, businesses, and residents.	Design programs in partnership with mobility companies; oversee program implementation.	\$	👤
Action M-3.2: Build out the Smart Moves transit and mobility system, including the network of mobility hubs.	Coordinate with partners to ensure transportation improvements support the overall system.	None	👤
Action M-3.3: Initiate a public education and marketing program to promote alternative transportation programs.	Support messaging development and share through City channels.	\$	👤
Action M-4.2: Revise parking policies to promote other modes of transportation.	Develop and approve revisions to parking policies.	None	👤
Action M-4.3: Develop a market-value parking strategy to reduce congestion and promote alternative transportation in high-use districts..	Develop and approve revisions to parking policies.	None	👤
Action M-5.1: Promote community-wide electric vehicle adoption.	Support outreach development and distribution; work with MEC to update codes as needed.	\$	👤
Action M-5.2: Expand the charging station network.	Install and maintain charging stations on City property; support MEC outreach efforts to promote	\$\$	👤 👤

	charging stations on private property.		
Action M-5.3: Electrify public-serving fleets.	Procure electric vehicles for City fleet; provide necessary training for employees.	\$\$\$	👤 👤
Action M-5.6: Reduce the use of polluting lawnmowers and other landscaping equipment.	Support MEC outreach efforts.	\$	👤

ENERGY SUPPLY

Action	City's Role	Capital Cost to City	Employee Time
Action E-1.3: Coordinate legal review and response by the City for state renewable energy policies.	Legal support for policy (e.g., rate cases) review and response.	None	👤
Action E-2.4: Adopt and advocate for solar-friendly policies and practices.	Staff time to review policies, gather feedback, and implement changes.	None	👤 👤
Action E-2.5: Create an online hub with climate action resources for residents and businesses.	Develop content for website; create website and design; regularly update website content to keep current.	\$	👤 👤
Action E-3.2: Implement microgrids.	Staff time to identify facilities to target for microgrids and capital funds for installation.	\$\$\$	👤
Action E-3.3: Model future electricity demand to inform a resilient clean energy plan.	Staff time to provide data as needed to Evergy.	None	👤
Action E-4.1: Increase participation in the renewable energy direct program.	Staff time to identify need and secure agreement.	None	👤
Action E-4.2: Develop a program to procure renewable energy at community scale.	Staff time to determine method of procurement and secure the agreement.	None	👤 👤
Action E-1.3: Coordinate legal review and response by the City for state renewable energy policies.	Legal support for policy (e.g., rate cases) review and response.	None	👤
Action E-2.4: Adopt and advocate for solar-friendly policies and practices.	Staff time to review policies, gather feedback, and implement changes.	None	👤 👤
Action E-2.5: Create an online hub with climate action resources for residents and businesses.	Develop content for website; create website and design; regularly update website content to keep current.	\$	👤 👤
Action E-3.2: Implement microgrids.	Staff time to identify facilities to target for microgrids and capital funds for installation.	\$\$\$	👤
Action E-3.3: Model future electricity demand to inform a resilient clean energy plan.	Staff time to provide data as needed to Evergy.	None	👤

Action E-4.1: Increase participation in the renewable energy direct program.	Staff time to identify need and secure agreement.	None	1
Action E-4.2: Develop a program to procure renewable energy at community scale.	Staff time to determine method of procurement and secure the agreement.	None	2

NATURAL SYSTEMS

Action	City's Role	Capital Cost to City	Employee Time
Action N-1.1: Preserve and enhance green space and trees to increase the tree canopy.	Enhance existing programs and explore new policy mechanisms.	\$	1
Action N-1.2: Systematically protect, acquire, and restore floodplain and riparian forests.	Support regional restoration efforts.	None	1
Action N-1.3: Promote and incentivize the use of native plants, grasses, shrubs, groundcover, and trees.	Update City policies and guidance to prioritize native plantings and support outreach efforts.	\$	1
Action N-1.4: Implement heat island mitigation strategies through development.	Explore potential code updates and implement as appropriate.	None	1
Action N-2.4: Consider new development's impact on ecosystems and healthy soil structure.	Update development review process.	None	2
Action N-2.5: Revise policies for City operations to protect ecological health for City-managed landscapes and encourage other public and private entities to do the same.	Develop, approve, and implement revised policies.	\$	2
Action N-3.1: Practice water conservation and demand management.	Expand outreach efforts.	\$	1
Action N-4.1: Ensure climate considerations are incorporated into planning for natural processes.	Update modeling and other planning tools; revise programs as necessary.	\$\$	2
Action N-4.4: Increase capacity for stormwater collection and treatment.	Identify, plan, and construct green infrastructure projects across the city.	\$\$\$	3
Action N-4.5: Incentivize, educate, and encourage community members and businesses to replace hardscapes with pervious surfaces and	Develop new incentive program.	\$\$	2
Action N-4.6: Develop a regional or watershed-scale plan for stormwater management.	Support regional planning efforts.	None	1
Action N-1.1: Preserve and enhance green space and trees to increase the tree canopy.	Enhance existing programs and explore new policy mechanisms.	\$	1
Action N-1.2: Systematically protect, acquire, and restore floodplain and riparian forests.	Support regional restoration efforts.	None	1
Action N-1.3: Promote and incentivize the use of native plants, grasses, shrubs, groundcover, and trees.	Update City policies and guidance to prioritize native plantings and support outreach efforts.	\$	1

HOMES & BUILDINGS

Action	City's Role	Capital Cost to City	Employee Time
Action B-1.1: Revise current benchmarking program by adding building performance standards.	Revise benchmarking legislation as needed.	None	1
Action B-1.4: Increase energy efficiency of municipal facilities.	Identify upgrades needed; develop a contract to complete the work; verify performance.	\$\$\$	2
Action B-1.5: Implement energy efficiency requirements for private entities seeking City incentives.	Create and enforce requirements for City initiatives.	None	1
Action B-1.6: Reduce natural gas system leakage.	Staff time to coordinate repairs with Spire.	None	1
Action B-2.4: Require home energy and carbon disclosures at time of lease and sale.	Create and enforce legislation.	None	2
Action B-3.5: Build net-zero community resiliency hubs.	Coordinate site selections, development, and oversight of operations.	\$\$\$	3
Action B-4.1: Require all new City buildings to be all-electric and electrify existing City buildings.	Create new construction standards and implement as applicable; identify and prioritize electrification projects. During project phase, oversee contractors completing work.	\$\$\$	2
Action F-1.1: Reduce zoning and policy barriers to local food production.	Review potential policy updates and implement recommendations.	None	2
Action F-1.2: Incentivize local food production and soil regeneration.	Develop incentive program(s).	\$	2
Action F-1.3: Transform underutilized urban spaces into food production areas.	Develop food production programs on City property.	\$	3
Action F-1.4: Provide education about ways to garden, grow food, and advance regenerative soil practices.	Support outreach efforts.	\$	1
Action F-1.5: Establish a coordinator position for food systems planning and community collaboration at the municipal level.	Submit a budget request and create a workplan for new position.	None	3
Action B-1.1: Revise current benchmarking program by adding building performance standards.	Revise benchmarking legislation as needed.	None	1
Action B-1.4: Increase energy efficiency of municipal facilities.	Identify upgrades needed; develop a contract to complete the work; verify performance.	\$\$\$	2

FOOD

Action	City's Role	Capital Cost to City	Employee Time
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Action F-1.1: Reduce zoning and policy barriers to local food production.	Review potential policy updates and implement recommendations.	None	👤 👤
Action F-1.2: Incentivize local food production and soil regeneration.	Develop incentive program(s).	\$\$	👤 👤
Action F-1.3: Transform underutilized urban spaces into food production areas.	Develop food production programs on City property.	\$\$	👤 👤 👤
Action F-1.4: Provide education about ways to garden, grow food, and advance regenerative soil practices.	Support outreach efforts.	\$	👤
Action F-1.5: Establish a coordinator position for food systems planning and community collaboration at the municipal level.	Submit a budget request and create a workplan for new position.	None	👤 👤 👤
Action F-1.1: Reduce zoning and policy barriers to local food production.	Review potential policy updates and implement recommendations.	None	👤 👤
Action F-1.2: Incentivize local food production and soil regeneration.	Develop incentive program(s).	\$\$	👤 👤
Action F-1.3: Transform underutilized urban spaces into food production areas.	Develop food production programs on City property.	\$\$	👤 👤 👤
Action F-1.4: Provide education about ways to garden, grow food, and advance regenerative soil practices.	Support outreach efforts.	\$	👤
Action F-1.5: Establish a coordinator position for food systems planning and community collaboration at the municipal level.	Submit a budget request and create a workplan for new position.	None	👤 👤 👤
Action F-1.1: Reduce zoning and policy barriers to local food production.	Review potential policy updates and implement recommendations.	None	👤 👤
Action F-1.2: Incentivize local food production and soil regeneration.	Develop incentive program(s).	\$\$	👤 👤
Action F-1.3: Transform underutilized urban spaces into food production areas.	Develop food production programs on City property.	\$\$	👤 👤 👤
Action F-1.4: Provide education about ways to garden, grow food, and advance regenerative soil practices.	Support outreach efforts.	\$	👤

WASTE & MATERIALS

Action	City's Role	Capital Cost to City	Employee Time
Action W-1.1: Expand City government recycling and green purchasing.	Identify and implement green procurement initiatives.	\$	👤 👤
Action W-1.2: Identify avenues for monitoring and preventing illegal dumping.	Co-lead a regional effort to address illegal dumping through programs and education.	\$	👤 👤
Action W-1.3: Update the Comprehensive Solid Waste Management Plan.	Update the plan.	\$\$	👤 👤
Action W-1.4: Expand and increase recycling education and participation in curbside recycling program.	Support outreach efforts and funding for potential incentives.	\$	👤
Action W-1.5: Promote waste reduction and diversion programs and advocacy.	Lead outreach efforts and develop and maintain an online web	\$\$	👤 👤

	resource to provide updated information for residents and businesses.		
Action W-1.6: Provide more neighborhood and community solid waste disposal, composting, and recycling sites, programs, and events.	Organize neighborhood waste events and programs.	\$\$	👤 👤
Action W-1.7: Explore policies to limit single use plastic, polystyrene foam, and other hard-to-recycle single use-items.	Review potential policies to limit waste and develop a proposed approach.	None	👤
Action W-1.8: Prohibit construction of pyrolysis plants within city limits.	Develop and approve policy.	None	👤
Action W-1.9: Establish requirements for waste diversion at all City-permitted events.	Develop and apply requirements.	None	👤
Action W-2.1: Expand and promote small- and large-scale composting throughout Kanas City.	Coordinate with partners to expand access to composting programs and support funding of materials needed for compost sites.	\$\$	👤
Action W-3.3: Explore policy options for reducing carbon in construction materials used in City operations.	Develop and apply policy.	None	👤
Action W-1.1: Expand City government recycling and green purchasing.	Identify and implement green procurement initiatives.	\$	👤 👤
Action W-1.2: Identify avenues for monitoring and preventing illegal dumping.	Co-lead a regional effort to address illegal dumping through programs and education.	\$	👤 👤
Action W-1.3: Update the Comprehensive Solid Waste Management Plan.	Update the plan.	\$\$	👤 👤

Funding Mechanism	Capital Cost	Symbol
Can be funded within existing budget	\$0-\$10,000	\$
Will require a significant capital budget request	\$10,001-\$300,000	\$\$
RFP Required for Work	\$300,000 +	\$\$\$

Level of Commitment	Estimated Full Time Equivalent (FTE)	Symbol
Requires a minimal amount of staff time and effort to implement and maintain	Less than 0.1 FTE	👤
Requires a moderate amount of existing staff time to implement and maintain	0.1-0.5 FTE	👤 👤
Requires new staff be hired or contracted to implement and maintain.	More than 0.5 FTE	👤 👤 👤

STRATEGY LIBRARY: OPTIONS FOR MID- AND LONG-TERM ACTIONS

The following actions were identified during the planning process as potential actions to support strategy implementation in the mid-term (2026-2030) or long-term (Beyond 2030). As City staff evaluates progress and looks toward 2026 and beyond, this list can be used as a library to help develop workplans.

MOBILITY

M-1: REDUCE VEHICLE MILES TRAVELED (VMT) THROUGH COORDINATED AND PLANNED DEVELOPMENT

- Redesign and upgrade critical and vulnerable transportation infrastructure to enhance safety and climate resilience.
- Prioritize infill development and redevelopment.
- Require developers to include green infrastructure in their project or pay a fee into a fund for that purpose (similar to the 1% for Art program). Focus the “greening” of areas first in areas of lowest income and highest number of vacant lots. Partner with Deep Roots, MDC, KCCG, Giving Grove and others on these projects.

M-2: SHIFT TRIPS TO BICYCLING AND WALKING BY EXPANDING A NETWORK OF SAFE AND ACCESSIBLE ROUTES

- Partner with Safe Routes to School to promote the safe use of alternative transportation to and from school.
- Strive toward the goal of Diamond or Platinum Bicycle Friendly City designation by the League of American Bicyclists by 2040.

M-3: SHIFT TRIPS TO TRANSIT BY BUILDING EFFICIENT AND EFFECTIVE TRANSIT SYSTEMS AND MOBILITY HUBS

- Explore opportunities to improve and expand equity and utilization of micro mobility programs and policies, such as electric bike and scooter share systems.
- Explore and promote commuter incentives to encourage the use of alternative modes of transportation.
- Develop a plan to implement light rail as part of an overall healthy public transit system.

M-4: REDUCE VEHICLE EMISSIONS FROM IDLING BY REDUCING CONGESTION AND IMPROVING PARKING MANAGEMENT

- Use technology to monitor integrity of transportation infrastructure and relay real-time data to ensure responsiveness to and limit disruptions for users.
- Establish and enforce anti-idling zones throughout Kansas City.
- Develop a Comprehensive Traffic Signal/Flow Coordination Plan.

M-5: REDUCE VEHICLE EMISSIONS THROUGH LOW- AND NO-EMISSION VEHICLES

- Develop a free, public, electric bike and scooter program.

- Develop policies and zoning codes which continue to limit and then eliminate high emission vehicle traffic throughout City districts with cooperation of commercial and industry associations, manufacturers, and goods movement hubs.
- Develop policies around development incentives that requires low- and no-emission operating equipment onsite, including on-road vehicles entering and exiting, as well as off-road support equipment (e.g., terminal trucks, airport ground support vehicles, mobile construction equipment).

ENERGY SUPPLY

E-1: TRANSITION ENERGY GRID MIX TO RENEWABLE ENERGY

- Study hydropower options.
- Establish a municipal electric utility.

E-2: EXPAND NEIGHBORHOOD, COMMERCIAL, AND MUNICIPAL RENEWABLE ENERGY GENERATION

- Require new development to include solar or other renewable energy sources.
- Enable excess energy generated to be sold back to Evergy to offset other costs.
- Undertake a feasibility study for opportunities for on-site generation of renewable energy for municipal buildings and facilities.
- Provide additional incentives for on-site solar installation.
- Explore the idea of a "Climate Loan" to fund upfront costs.
- Solar EV charging in parking lots and parking garages.
- Undertake an aggressive education and public relations campaign in partnership with Greater Kansas City Chamber of Commerce, Evergy, Spire, foundations, non-profits, neighborhood organizations, home associations, Home Builders Association of Greater Kansas City.
- Implement neighborhood scale geothermal.
- Consider changes in the KCMO Land Bank and Urban Homesteading programs to allow for neighborhood based solar options on land they now own and should be using in support of community needs.
- Install smaller wind turbines under overpasses and along highways to ensure the capture of the made-made wind generated from passing cars while also keeping the native birds safe.
- Explore geothermal options.

E-3: IMPROVE GRID STABILITY AND RESILIENCE

- Bury powerlines.
- Encourage and support practices to reduce water use at local power plants.
- Implement a large downtown microgrid based around the Vicinity CHP facility.
- Develop incentive or other mechanism to bury residential powerlines between the pole and the meter, prioritizing areas that frequently lose power and lower-income areas. Coordinate these efforts with Evergy to ensure flooding and ground water impacts are considered.

E-4: PURCHASE UTILITY-SCALE RENEWABLE ENERGY

None Identified

NEW: DEVELOP RENEWABLE NATURAL GAS RESOURCES FOR STRATEGIC END USES

Support Spire's net-zero carbon emissions by 2050 pledge through the development of renewable natural gas and other carbon reduction strategies. Renewable natural gas development will likely not be able to support all the community's natural gas use, so should be reserved for difficult-to-electrify uses like industrial processes, emergency power, and unique uses beyond space heating, hot water heating, and cooking.

- Create a program to offer renewable natural gas.
- Construct biogas generators at wastewater plants.
- Coordinate with regional partners to install, expand, and maintain landfill gas collection systems and beneficially reuse landfill gas.
- Prohibit new biomethane infrastructure construction within the city.

NATURAL SYSTEMS

N-1: EXPAND NETWORK OF TREES AND NATURAL AREAS

- Fully fund parks and recreation system.
- Create a prioritized feasibility plan for incremental planting to increase the amount of greenspace and trees where heat island effect is prevalent, or no green exists.

N-2: PROMOTE REGENERATIVE, ECOLOGICALLY HEALTHY SOILS AND LANDSCAPES

- Implement a voluntary carbon offset pilot program to incentivize carbon sequestration on farms and ranches in our region.
- Use biochar and compost in managed landscapes.
- Conduct education and outreach about natural systems, using a public health approach and being specific with benefits to community.
- Ban the sale of invasive plants like bush honeysuckle.
- Incentivize compost application on lawns.

N-3: SUSTAINABLE WATER SUPPLY AND USE

- Monitor environmental conditions and changes such as surface water conditions and vegetation changes in watersheds.
- Diversify options for water supply and expand current sources, including exploring opportunities for additional storage and alternative supplies.
- Create/update drought contingency plans.
- Conduct stress testing on wastewater treatment biological systems to assess tolerance to heat.
- Retrofit intakes to accommodate lower flow or water levels.
- Improve pumps for backflow prevention.
- Implement a leak detection program.
- Promote potential water savings to private property owners from establishing a water analysis and measurement program that optimizes the use of potable water according to the measures recommended by LEEDv4.1 WE credit 4.2.

N-4: USE NATURAL SYSTEMS TO MANAGE STORMWATER RUNOFF

- Institute regional RAIN tax (stormwater fee).
- Redefine riverine flood hazard zones to match projected expansion of flooding frequency and extent as well as integrate flood management and modeling into land use planning.
- Expand organic matter soil amendment option to private landowners and developers as an alternative compliance path for stormwater control. Allow for using engineered soils with up to 5% added organic matter, with a maintenance and testing contract in place as proof of long-term stormwater control impact. Storage above and beyond the tank-storage could be incorporated to provide deeper impacts while still saving developers money. This compliance option would reduce costs to private developers, improve the local market for refined compost, and reduce stormwater and flash flooding impacts from new developments and major renovations.

HOMES & BUILDINGS

B-1: INCREASE BUILDING EFFICIENCY AND HEALTH FOR COMMERCIAL AND PUBLIC BUILDINGS

- Call for better emissions control from the Department of Natural Resources at polluting facilities.
- Conduct an energy efficiency competition.
- Promote green classrooms and green schools.
- Improve energy efficiency and optimization of operations at Water & Wastewater treatment facilities.
- Provide grants/incentives for green roofs or cool roofs.
- Certify every municipal building for ENERGY STAR or LEED.
- Develop energy management plans for key City facilities.
- Explore financing opportunities such as energy performance contracting to fund longer-term, larger municipal projects.
- Train City staff in energy efficient behavior.
- Adopt new lease agreements that promote efficiency.

B-2: IMPROVE THE EFFICIENCY, AFFORDABILITY, AND DURABILITY OF HOMES

- Disallow installation of natural draft furnaces.
- Maximize savings through energy efficiency and healthy home programs, promoting activities such as energy audits, retro commissioning, and lighting retrofits.
- Expand the conventional Home Weatherization Program to allow for a broader client base by allowing services to be provided, under certain conditions, to property owners not eligible pursuant to federal program guidelines and by providing financing options including grants and loans.
- Require community choice for energy efficiency in multifamily housing.
- Create a fund to help homeowners replace lead pipes.
- Lobby Missouri Public Service Commission to allow utilities to fund more energy efficiency improvements with premiums for low-income homes.
- Expand and promote Pay-As-You-Save (PAYS) programs

B-3: ENSURE CLIMATE-READY, EFFICIENT CONSTRUCTION

- Expand stream corridor with setbacks.
- Identify and protect vulnerable City facilities and critical services (e.g., flood-resilient design for affordable housing).

- Build flood barriers to protect infrastructure.
- Implement policies and procedures for post-flood and/or post-fire repairs.
- Relocate facilities to higher elevations.
- Integrate climate-related risks into capital improvement plans.
- Require energy recovery units in all new construction.
- Develop stretch code requirements and offer developer or builder incentives for achieving stretch code measures.
- Assess, in advance, the climate impact of proposed development projects as a criterion in evaluating requests for City support.
- Require an early phase energy model or assessment be done as part of permit process.
- Provide tax incentives for building material suppliers and manufacturers doing research and development for sustainable materials.
- Adopt nature-based systems for codes (e.g., permeable groundcovers over concrete).

B-4: PROMOTE EQUITABLE BUILDING DECARBONIZATION

- Establish a program to convert homes from gas to all-electric.
- Install heat pumps.
- Install geothermal heating and cooling.
- Require that all new buildings be all-electric.

FOOD

F-1: INCREASE PRODUCTION OF LOCAL FOOD

- Evaluate regional food supply chains, including production, transportation, and storage; identify opportunities to bolster resiliency against impacts of climate hazards.
- Increase protections for current urban farms and gardens against alternative land development.

F-2: IMPROVE HEALTHY AND SUSTAINABLE FOOD ACCESS

- Explore Farm to Food Bank policies at the local and state level.

WASTE & MATERIALS

W-1: DIVERT WASTE FROM THE LANDFILL AND REDUCE ILLEGAL DUMPING

- Manage and reduce construction and demolition waste to achieve an 80% diversion rate.
- Reorganize the Solid Waste Management Division of Public Works into a Resource Recovery department; develop a Resource Recovery Campus.
- Conduct a waste audit for all municipal buildings and encourage waste audits for commercial buildings.
- Enact pricing policies (e.g., Pay-as-you-Throw) to encourage waste reduction and diversion.
- Establish a waste data tracking system.
- Explore alternative trash truck designs to prevent garbage spillage onto streets during operation.
- Develop a by-product synergy program to bring together local and regional manufacturers, waste haulers, and other industries to explore opportunities to develop industrial waste reduction opportunities.
- Advocate at the state and federal level for Producer Responsibility policies to place the burden of recycling back on the manufacturer and not the consumer.

- Create a tax on non-recyclable items coming into the metro to incentivize manufacturers, packagers, and shippers to move away from plastics.

W-2: DIVERT ORGANIC WASTE FROM THE LANDFILL THROUGH COMPOSTING

- Provide curbside composting services.
- Require commercial properties to compost.
- Explore methane extraction system with Vicinity Energy at 2nd street location as a possible end market for large scale food waste from breweries, dairies, restaurants, and residential compost.

W-3: REDUCE WASTE AND EMBODIED CARBON BY EXPANDING THE REUSE AND REPAIR ECONOMY

- Incentivize reclamation of building materials in demolition for use by community organizations.