



August 25, 2021

To Mayor Lucas and Members of City Council

EMC 2021 Annual Report

The Environmental Management Commission (EMC) is charged with offering policy recommendations to the Mayor and City Council regarding environmental priorities, opportunities, and challenges for inclusion in the city's five-year planning cycle. The [EMC's 2020 report](#) provided policy recommendations across a broad spectrum of municipal environmental opportunities and concerns.

The EMC's 2021 Report focuses on our Climate Emergency. Record breaking heat, storms, drought, and ocean rise evidence the dangers before us. What we are seeing first-hand, and what we have to communicate to our communities, is that it is the system itself, how we live, and the relationships we have to each other and the natural world that is causing the crisis we face. We must embrace change.

Climate Resiliency Planning Process

Kansas City is currently engaged in a planning process to develop a broad range of actionable strategies to mitigate the causes and respond to the impacts of climate change.

There are many views on the important issues and solutions around climate change. There is a tendency to reduce and simplify the narrative to a few key issues framed by perceived areas of influence. For example: conversion to clean energy, deforestation, overconsumption, land use and landscaping practices, habitat loss, etc. In reality, progress is far more complex.

By reducing discussion to a few solutions, whether that is electrifying the transportation system, planting trees, or building healthy soil, we miss the bigger point. People need to reconnect with the Earth, physically, emotionally, and spiritually, so that we consider our impacts to the Earth, other life forms, and each other, in everything we do. There needs to be an interconnected web of solutions that are cultural as well as structural.

Kansas City needs an integrated view of the myriad strategies for adaptation and mitigation of the impacts of climate change. Holding that priority in mind, EMC's 2021 Annual Report highlights several emerging directional changes that will impact Kansas City moving forward.

Regeneration of soil health and restoration of natural cycles

The water cycle is a key determinant of the impacts of climate change. Restoration of the natural interaction between H₂O, soils, plants, animals, and the atmosphere is emerging as vital component of climate adaptation. There is an urgent need to regenerate living soil in yards, parks, farms and ranches. Earth's natural workforce are the trillions upon trillions of organisms that built and have been regulating planetary temperature. Human soil practices have been killing these organisms so they cannot do their jobs.

Environmental Management Commission of Kansas City Missouri

There are a number of people in Kansas City and the broader region surrounding the city working on strategies for outcome-based regeneration of soils and natural cycles. In addition to sequestering carbon, living healthy soils hold more water. Climatologists understand that up to 40% of our weather is influenced by local conditions: increasing photosynthesis puts more water vapor, bacteria and aerosols into the air to help stabilize our weather. Kansas City should actively engage in this work, participate in test projects, provide opportunities to model vital changes, and eventually regulate best practices.

Engage Residents in Every Back (and Front) Yard

As the effects of climate change are increasingly being felt throughout the city and beyond, it seems like a critical time for Kansas City to engage its' residents in working on solutions at home and in their neighborhoods. City commissions like the EMC are part of this big planning process. But to truly engage a much larger population, it seems the initiatives need to literally be more on the ground.

What if Kansas City asked residents to engage in climate solutions – in their back (and front) yards – with manageable, easily attainable and measurable results that residents can see and take pride in? What if this new city initiative provided incentives to residents – homeowners and renters alike – to transform part of their landscape into a native and/or edible wonderland to attract pollinators, encourage healthy soil and healthy diets, discourage the use of chemicals, and help the city manage rain water?

Kansas City already has several non-profit organizations (Deep Roots KC, Bridging The Gap, Kansas City Community Gardens, Cultivate KC, The Giving Grove, etc.) that promote native landscapes, trees, edible gardens and rain water management. This would be an opportunity for the city to support these efforts by partnering/contracting with them on a much larger scale to create a more restorative, resilient and beautiful city. With a powerful marketing and branding campaign, this effort could attract many additional benefits for the city.

An appendix to this report provides examples of community incentives employed by other cities.

Transformation of energy infrastructure

Innovators in Kansas City are taking the lead in modeling a transformation to clean energy. The Aviation Dept and the new terminal development team are: delivering a project that will perform better than required by ordinance with respect to energy efficiency, in addition to meeting some of that requirement with solar panels being installed on the new garage. And beyond that they are converting their fleet (air and land) from diesel to electric.

Regardless of what Federal administration is in place, there are certain transformations that are underway in the energy infrastructure that will be revolutionary over the next 5-30 years. These trends have already been underway for about 10 years, but are still just beginning. These trends are important to the Environmental Management Commission because they relate to

the city's energy supply, infrastructure, and strategies to meet its climate goals. The City's current climate goals are expressed in [Resolution No. 200005](#). Specific areas may accelerate or be somewhat slowed based on specific Democratic or Republican actions, but overall, these trends will remain in place, such as:

The energy fuel mix for large, municipal power plants will continue to increase the use of renewables (wind and solar) as they become increasingly available. Coal-fired plants will continue to become less economically viable and will be shut down.

In order to maintain grid stability, power suppliers (e.g. Evergy) will continue to ramp up a more decentralized approach, including distributed generation, large-scale battery storage, and alternative storage (e.g. hydro batteries).

Grid reliability will continue to increase in importance. Outages will continue to increase, and will drive the further development of regional/local microgrids and smart grid control/monitoring tools.

Cities, businesses, and individuals that are aware of these issues, and are proactive with policy in these areas, will have greater success, lower operating costs, more grid reliability, meet regional climate goals, and will be more attractive places to live, especially for younger citizens that are tuned in to these issues. Cities that fall behind in these areas will be viewed negatively, and will lose revenue, brainpower, and vigor to other regions.

Electrification of transportation systems

Electric vehicles will continue to rise in importance as a source of decarbonization and efficiency. Some automakers, such as GM, and Honda, have already announced that they will stop producing gasoline-powered vehicles by 2035 and 2040, respectively. Locally, Ford Motor Company is converting its Claycomo Assembly Plant to build E-Transit vans as part of their plan to electrify their iconic and most popular vehicles.

The utility infrastructure to support such a move is in its infancy, and will need massive amounts of both technical and policy expertise to be successful.

One key area of this transition will be revenue, especially the gas tax. Revenues from gas sales will decline steadily. Forward-thinking regions will put legislation in place to change the tax basis to vehicle-miles-traveled (VMT) and vehicle weight, rather than the current gallons of gas purchased. Simply increasing taxes on all-electric vehicles will have a negative effect, will disincentivize the transition, and will leave behind cities and regions that move in this direction.

For the rise of EVs to be successful in decarbonization means that their energy source must come from renewables.

Lifestyle and community changes

Citizens of the 21st century will want and demand a more walkable city. Cities that do not move aggressively in this direction will continue to lose young people, brainpower, and vigor. An increasing number of young people intentionally avoid car ownership, for example, and are the first generation in U.S. history to reverse the decades-old trend of increasing car ownership. Areas that are of special interest to the EMC include:

A comprehensive and successful Tree Plan is critical. Trees contribute to the walkability and livability of a city in many ways. They can also help with city management of multiple tangential issues, such as crime (reduces urban heat, citizen irritability, calmness), climate goals, reducing stormwater runoff, walkability (eliminates urban deserts), and so forth. The [Urban Forest Master Plan](#), which is not yet funded, was adopted by Resolution #200143.

Bikeable, walkable regions of the city must be built into the overall infrastructure, not as an afterthought. These areas must allow significant portions of the population to live, work, and access all of their basic needs within a bikeable, walkable radius. City planners and urban designers must be acutely aware of ways to improve in this respect. [Bike KC Master Plan](#) has yet to be adopted and funded.

To further support walkable cities, public transportation that is both effective and affordable is critical. The number of people that will rely on this infrastructure will increase significantly over the coming years.

Conclusion

Kansas City provides many environmental services that remain essential to residents and businesses. These services were highlighted in [EMC's 2020 Report](#). Kansas City should fully support staffing, resources, and innovation to continuously improve delivery of these services.

Kansas City has undertaken major initiatives to reduce carbon emissions including clean energy, tree planting, transportation systems changes, and energy efficiency in buildings. Kansas City's participation in regional strategies informs and enhances the benefits of these initiatives. Kansas City should continue to work with other communities, businesses, and non-profits to innovate in all these areas. It is recommended that Climate Action KC, the regional climate action plan, be endorsed as a context for the KC Climate Protection and Resiliency Planning process that is currently underway.

The EMC's 2021 Report centers on the **Climate Emergency**. Impacts that once seemed gradual are now clearly accelerating. It is not possible to incrementally adapt our status quo. The extent and implications of climate change already threaten our whole ecology.

The Report highlights literally ground-breaking work underway to restore the viability of soils and natural water, nitrogen, and nutrient cycles. This work can't wait. Kansas City should share

Environmental Management Commission of Kansas City Missouri

its resources to support the testing and advancement of soil regeneration. Significantly, soil stewardship could provide a path for sharing innovation, ecological awareness, and engagement among the general population.

Kansas City's Climate Protection and Resiliency Planning process is designed to provide direction toward a different future. Proceeding with respect for each other's experience and perspectives, we can regenerate balance with the rest of ecology in ways that connect our human community as well. Resiliency in the face of change must include sincere appreciation for each other, enhanced health and well-being, and broadly shared economic opportunity.

Implementation of the plan will require infusion of social, environmental and economic equity in all our planning and activities. Kansas City has started on this path with the implementation of the [Climate Protection Plan](#) adopted in 2008 as well as adoption of a number of ordinances and resolutions over time – including: 070830, 071216, 080091, 080543, 080736, 080754, 090461, 100245, 110235, 110245, 150299, 150965, 170484, 170586, 170949, 180475, 181000, 190233, 190475, 190760, 200005, 200143, 200396, 200719. In several of these actions, City Council has recognized climate change as an emergency or crisis.

Many cities and counties across the USA have, by legislative action, specifically declared the existence of a climate emergency. The EMC encourages the City Council to consider a similar resolution to alert the citizenry to the crisis we face and strengthen the call for collective action. Examples of cities which have adopted such resolutions include: Chicago, San Diego, Iowa City, New York City, Minneapolis, and nearly 2,000 others.

The EMC's recommendation for 2021 and beyond is full engagement of elected officials, staff, and citizens in the examination of how to regenerate a constructive ecology in Kansas City. In order to realize a viable future, we must find and share a fresh and inclusive vision of quality of life.

Respectfully submitted



Carol Adams, Co-chair, EMC



Bob Berkebile, Co-chair, EMC

cc: Brian Platt, City Manager
Environmental Management Commission

Attachment: Examples of Community Engagement Initiatives

Environmental Management Commission of Kansas City Missouri

APPENDIX: EXAMPLES OF COMMUNITY ENGAGEMENT INITIATIVES

Here are a few examples of programs and financial incentives offered by other cities and counties both locally and nationwide:

- **Austin, TX:** [Grow Green Grants, Rebates & Free Stuff](#)

The City of Austin offers a variety of rebates, grants and free landscaping items through its Grow Green program to help residents create an “earth-wise” garden.

Residential Programs:

Grants

- [Urban Forest](#) up to \$58,000 of funding for projects that show a clear benefit to Austin’s urban forest. For Austin residential sites, all projects must be within 15 feet of public property which includes streets.

Rebates

- [WaterWise Rainscape](#) up to \$500 per property for landscape features to keep rainwater on the land
- [Rainwater Harvesting](#) up to \$5,000 to install rainwater harvesting systems to capture rainwater
- [WaterWise Landscape](#) up to \$1750 to help residents convert turfgrass to native and adapted plant beds
- [Landscape Survival Tools](#) up to \$120 for compost, mulch, and core aeration service
- [Home Composting Program](#) up to \$75 rebate on a home composting system OR up to \$75 on a chicken coop through the [Chicken Keeping Rebate Program](#)
- [Irrigation Upgrade](#) up to \$400 rebate to help with costs to improve irrigation system efficiency
- [Pressure Regulating Valve \(PRV\)](#) up to \$100 to help purchase a pressure regulating valve to reduce water pressure in your house
- [Watering Timer](#) - 50% off the before tax purchase price up to \$40 for up to two watering timers to give residential customers more control over hose-end watering

Free Stuff

- [Mulch](#) pick up free mulch made from curbside yard trimmings
- [Design stencil](#) request a design stencil when you order Grow Green Design Templates
- [Soil Moisture Meter](#) measures the moisture of your soil to help you know when it’s time to add water
- [Irrigation Evaluation Instructions and Template](#) – do it yourself irrigation evaluation
- [Free Irrigation System Evaluations](#) – a free irrigation system evaluation
- [Irrigation Runtime Calculator](#)
- Items available through check-out at the [Austin Public Library](#)
 - [Water Saver Hose Meter](#) monitor and control water use with a digital meter attachment for garden hoses and hose-end sprinklers
 - [Sunlight Calculator](#) measure the amount of light each area of your yard receives, then use the plant guide to select plants that best fit the light conditions

Environmental Management Commission of Kansas City Missouri

Multi-family and Homeowner Associations:

Rebates

- [Irrigation System Improvement Rebate](#) up to \$5000 maximum per property to increase irrigation efficiency
- [Pressure Regulating Valve \(PRV\)](#) up to \$500 per property for a pressure regulating valve to reduce water pressure in each unit and the irrigation system
- [Rainwater Harvesting](#) up to \$5,000 to install rainwater harvesting systems to capture rainwater
- [WaterWise Landscape](#) up to \$5,000 to multi-family homeowner associations to convert turfgrass to native and adapted plant beds

Schools:

Grants

- [Bright Green Futures Grant](#) up to \$3,000 for school-based sustainability projects including, rainscapes, rainwater harvesting, composting systems, habitat gardens, and more
- [Urban Forest](#) up to \$58,000 of funding for projects that show a clear benefit to Austin's urban forest

Rebates

- [WaterWise Rainscape](#) up to \$500 per property for landscape features to keep rainwater on the land

Community Groups:

Grants

- [Urban Forest](#) up to \$58,000 of funding for projects that show a clear benefit to Austin's urban forest

Other

- [Neighborhood Partnering Program](#) provides opportunities for community and neighborhood organizations to affect public improvements by sharing in the costs of those efforts with the City of Austin government. NPP includes cost share, grant assistance and Adopt-a-Median programs.

Commercial:

Grants

- [Urban Forest](#) up to \$58,000 of funding for projects that show a clear benefit to Austin's urban forest

Rebates

- [Rainwater Harvesting](#) up to \$5,000 for materials and labor to install rainwater harvesting systems to capture rainwater
- [Irrigation System Improvement](#) up to \$5000 maximum per property to increase irrigation efficiency
- [Water Efficiency Audit](#) 75 percent of the audit cost, up to a maximum of \$5,000 to identify potential water and cost savings

Environmental Management Commission of Kansas City Missouri

- **Johnson County, KS: [Contain the Rain](#)**

The Johnson County Stormwater Management Program encourages individual homeowners and businesses to make improvements on their properties to improve stormwater quality. Contain the Rain in Johnson County is a reimbursement program for most residents who install sustainable landscape solutions that benefit stormwater.

Residents can receive up to a 50-percent refund on the material and installation costs for rain gardens, native plants, native trees and rain barrels on their private property.

- **Clearwater, FL: [Compost Education Program](#)**

In an effort to increase awareness about backyard composting and fulfill the greenhouse gas reduction goals of the Clearwater Greenprint plan, the city launched a virtual course to teach residents how to compost at home. The Create Compost course teaches the basics of backyard composting and makes the process easy to understand. With proof of residency, the first 500 Clearwater residents to complete the course are eligible to pick up a free compost bin from the city.

- **Pinellas County, FL: [Fertilizer Ordinance](#)**

To protect the watershed, all property owners are forbidden from purchasing or applying fertilizers containing nitrogen and/or phosphorous to turf and/or landscape plants from June 1 through September 30 (the rainy season) or if the National Weather Service issues a severe thunderstorm, flood, tropical storm, hurricane warning or watch, or if rain greater than or equal to two inches in a 24-hour period is forecasted. There are additional restrictions on the amount of fertilizer that can be applied at other times and designated fertilizer-free zones near water ways.

- **Pinellas County, FL: [Florida-friendly Landscaping Incentives Program](#)**

Pinellas County has a new program designed to reduce the amount of water and fertilizer used on homeowners' lawns with a 50-percent rebate up to \$2,000 to replace a portion of an irrigated landscape with water-conserving micro-irrigation and Florida Friendly Landscaping™ (native and drought-resilient plants).

- **Fort Collins, CO: [Xeriscape Incentive Program](#)**

The Xeriscape Incentive Program is a comprehensive, education-based program offering [Fort Collins Utilities residential water customers](#) a rebate for transforming a pre-approved high-water use area to a water-wise landscape.

Participants receive a \$0.75/square foot rebate up to 1,000 square feet, or up to \$750, per approved project, per address. In partnership with Nature in the City, the program also offers an additional \$0.25/square foot rebate up to 1,000 square feet or up to \$1,000 total for those projects planted with a minimum of 80 percent plant species native to Fort Collins or Colorado.