



**LOUISVILLE**

# Sustainability Action Plan

**2020 UPDATE**

ADOPTED BY CITY  
COUNCIL  
OCTOBER 6,  
2020



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# Acknowledgements

The City of Louisville Sustainability Action Plan 2020 update and the progress of the 2016 plan would not have been possible without the support and dedication of leadership, staff, the Sustainability Advisory Board and regional partners.

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- Chris Leh, *Ward I*
- Deb Fahey, *Ward II*
- Jeff Lipton, *Ward II*
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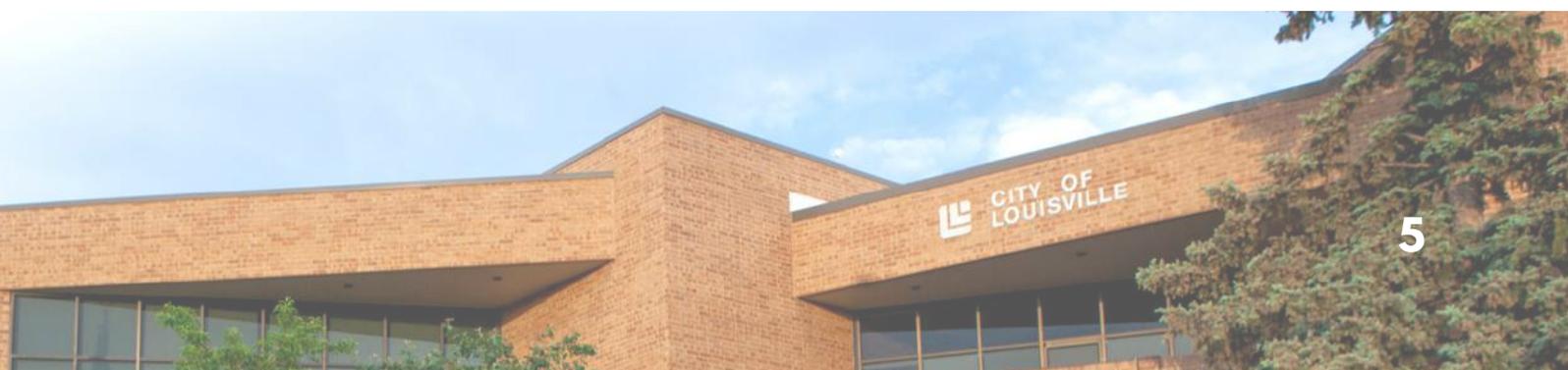
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## GROUPS, ORGANIZATIONS AND STAKEHOLDERS

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- Kate Bailey, *Eco-Cycle*
- Rachel Setzke, *Eco-Cycle*
- RJ Harrington, *Resident*
- Martin Ogle, *Resident*



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# IT IS WITH GREAT PLEASURE THAT WE INTRODUCE THE FIRST UPDATE TO THE LOUISVILLE SUSTAINABILITY ACTION PLAN.

In 2012, the Louisville Sustainability Advisory Board (LSAB) tasked themselves with the creation of a Sustainability Action Plan, a framework to guide Louisville's vision to create a more sustainable community as well as provide a roadmap for achieving our collective goals. In November of 2016, City Council adopted Louisville's first Sustainability Action Plan. Since that time, our community has made significant progress to achieving our goals and strategies, and in order to continue our momentum, LSAB began the updating process in July 2019.

A few important projects and milestones that influenced the 2020 update include the following:

## **Community-Wide and Municipal Carbon-Free and Emission Reduction Goals**

In August 2019, City Council unanimously agreed to adopt renewable energy and carbon emission reduction goals for both the community and City operations. In order to achieve these goals and our significant step forward, an update of the Sustainability Action Plan was needed to provide guidance on implementation.

## **Evolving Regional Partnerships and Opportunities**

In September 2018, Louisville graduated from Xcel Energy's Partners in Energy program and moved forward with our ongoing partnership by entering into an Energy Future Collaboration. Unlike the previous Partners in Energy program, Energy Future prioritizes both renewable energy integration as well as energy efficiency and usage reduction.

## **Transportation Master Plan (TMP)**

City Council adopted the Transportation Master Plan on October 1, 2019. The TMP is a comprehensive, multimodal look at transportation conditions and options throughout Louisville and the region and provides recommendations and alternatives that are critical for a sustainable future.

We have a lot of work remaining, but I'm happy to report that we have already achieved some of our targets and strategies, and we have many new and impactful sustainability opportunities on the horizon.

Your partners in sustainability,

Heather Balser  
City Manager

and

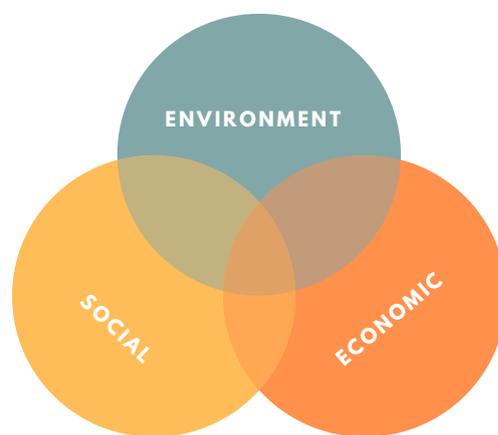
Louisville Sustainability  
Advisory Board



# Sustainability Vision

Sustainability is an integrated, ever-evolving concept and is vital in developing a resilient community. Defined in 1987 by the United Nations Brundtland Commission, sustainability is meeting the needs of the present without compromising the ability of future generations to meet their own needs. For any community to thrive, it must consider that all resources have limits.

The City of Louisville recognizes that sustainability is not based solely on environmental impact, and our sustainability vision utilizes the triple-bottom line approach when analyzing policy, operations and future decision-making. No solution can be sustainable unless it fulfills all three pillars.



## ENVIRONMENTAL STEWARDSHIP

We actively work to support our natural systems within Louisville and evaluate and consider the impact that community operations, programs, services and regulations have on the local, regional and global environment.

## SOCIAL EQUITY

Social equity is our active commitment to fairness and equality in policy consideration, implementation and distribution of public services.

## ECONOMIC VITALITY

We are dedicated to making Louisville a vibrant and diverse business environment. Louisville takes a balanced approach to economic development to retain our existing business partners and attract new ones.



# Plan Structure

This Sustainability Plan update is organized around seven inter-related sustainability topics: Climate, Energy, Transportation, Waste, Water, Ecological Health and Local Food and Agriculture. Each topic is separated into progressing steps forward and laid out by the following:

## GOALS

Each topic has one associated goal that identifies the overall desired state of the community.

## INTERNAL AND EXTERNAL OBJECTIVES

Each topic area and its corresponding goal are separated into internal and external objectives. Internal objectives and strategies are specifically related to municipal operations and procedures in order to lead by example. External objectives and strategies are aimed at the entire community, both residential and commercial/industrial.

## NEAR TERM VS MID TERM STRATEGIES

Strategies are identified actions to achieve the described goals and objectives and are categorized as near term or mid term. All strategies within this plan have been vetted and prioritized. Further prioritization can be found in Appendix A. In this instance, near term is defined as a timeline of one to two years, whereas mid term is three to four years. At the end of four years, the planning process for the next update will be in progress.

Other major chapters of the Sustainability Action Plan (SAP) include the following:

## APPENDIX A

Strategy Priority Matrix

## APPENDIX B

2020 Plan Update Summary of Revisions

## INCORPORATED PLANNING EFFORTS

Louisville has completed multiple planning efforts that relate to sustainability. Throughout the engagement process for these plans, residents shared their desire for environmental stewardship. The SAP update takes these plans into consideration and incorporates previous input, strategies and recommendations when applicable.

- Sustainability Action Plan 2016
- Boulder County Environmental Sustainability Plan
- City of Louisville Strategic Plan
- Transportation Master Plan
- Trail and Wayfinding Master Plan
- Comprehensive Plan
- Drought Management Plan
- Water Efficiency Plan



Climate

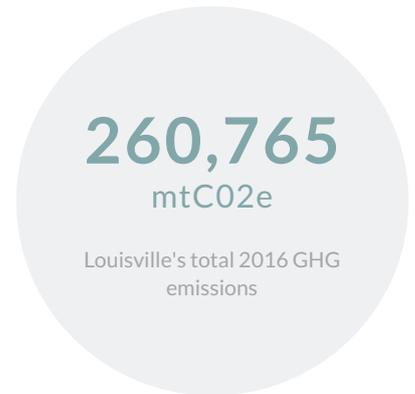


## CLIMATE

### INTRODUCTION

Colorado's climate is changing, and the impacts are being felt across the state as well as in Louisville. Extreme weather events are becoming more common, snowpack is lessening and melting earlier in the spring and "high heat" days are increasing. Louisville is committed to addressing climate change at the local level by reducing heat-trapping greenhouse gas (GHG) emissions.

In 2016, Boulder County completed the third county-wide GHG inventory, which highlights emissions from each municipality, sector and source. The total GHG emissions for Louisville was 260,795 mtCO<sub>2</sub>e and accounts for five percent of Boulder County's total emissions. The average emissions per Louisville resident is 12.5 mtCO<sub>2</sub>e.



or



## GOAL

Achieve emissions reduction targets identified in Louisville's climate action goals and become more resilient to the effects of climate change.



## INTERNAL OBJECTIVES

Reduce core municipal greenhouse gas emissions annually below the 2016 baseline through 2025

### NEAR TERM

Adopt internal policies that establish climate action as a top priority for the organization and guiding principle for decision making.

Ensure that all departments understand their role in achieving Louisville's climate action and sustainability goals.

### MID TERM

Continue to be an active member in statewide organizations that are working on our behalf to combat climate change, such as Colorado Communities for Climate Action (CC4CA).

Please see other chapters of this plan for more municipal climate-related strategies related to specific topic areas such as Energy (PAGE 16), Transportation (PAGE 21), Waste (PAGE 28 ) and Ecological Health (PAGE 40).

## COLORADO COMMUNITIES FOR CLIMATE ACTION



The City of Louisville is an active member of Colorado Communities for Climate Action (CC4CA), a coalition of 32 local governments across the state advocating for stronger state and federal climate policy. CC4CA members understand that climate change poses unique and severe risks to our communities and that we cannot meet our own local climate goals without effective state and federal policy.



## EXTERNAL OBJECTIVES

### Reduce core community greenhouse gas emissions annually below the 2016 baseline through 2030

#### NEAR TERM

Continue communications surrounding climate action and Louisville's climate action goals.

Promote local and regional programs and initiatives that assist residents and commercial entities in reducing their greenhouse gas emissions (i.e. EnergySmart, Xcel Energy's Home Energy Squad, etc.).

Engage with Louisville youth to provide climate and sustainability education and outreach to all.

#### MID TERM

Explore a mandatory or voluntary benchmarking requirement for commercial and industrial buildings owners in Louisville and support collaboration on a County level.

Pursue future climate change preparedness policies and collaborative efforts at the local, regional, and state levels.

Please see other chapters of this plan for community climate-related strategies related to specific topic areas such as Energy (PAGE 16), Transportation (PAGE 21), Waste (PAGE 28) and Ecological Health (PAGE 40).

## LEADING BY EXAMPLE



### SOLAR AT WATER TREATMENT FACILITIES

The City has three on-site solar arrays to help generate power and offset energy consumption. The sites, located at the Sid Copeland Water Treatment Plant, Howard Berry Water Treatment Plant and the Wastewater Treatment Plant, produce about 1,045 kW of electricity.

## COMMUNITY IN ACTION

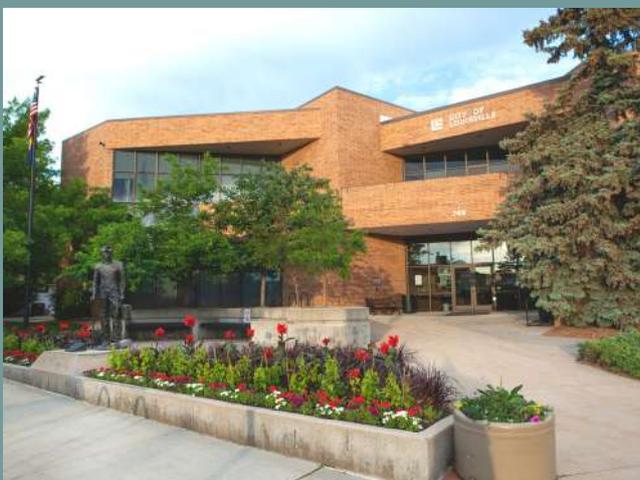


Pictures provided by: Tiffany Boyd

### GLOBAL CITIZENS GEOGRAPHY CLUB

The Global Citizens Geography Club at Louisville Elementary School is a student-driven and teacher-led school group that supports students being civically engaged while participating in the stewardship of our planet. Some of their efforts have focused on sustainable practices right here in Louisville, and some have been connected to larger issues of climate science and climate solutions. Students strive to educate and inform themselves and the students at their schools, while also reaching out to citizens of Louisville to share their learning. Recently, Louisville Middle School began a counterpart group, the Global Citizens Environment Club.

## LEADING BY EXAMPLE



### 100% CARBON FREE CITY FACILITIES

In August 2019, City Council adopted the City's first climate action goals. Five years ahead of schedule, all municipal facilities are running on 100% carbon-free electricity as of 2020.



Energy





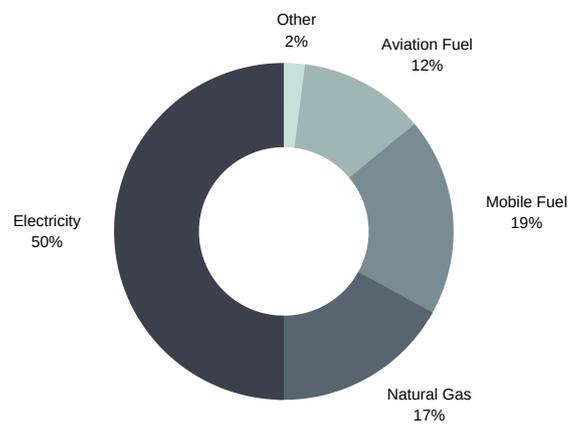
## ENERGY

### INTRODUCTION

The City of Louisville and its residents understand the role of energy and the built environment in creating a sustainable and resilient community. Since the original adoption of the Louisville Sustainability Action Plan in 2016, significant steps have been taken in regard to electricity and energy use and as recommended in the original document, the City adopted climate action goals in August of 2019.

Electricity and natural gas are the top two sources of greenhouse gas emissions in Louisville and derives mainly from residential and commercial buildings. Action in this area will improve air quality, reduce home and business energy cost, improve utilization of the electricity system and provide opportunities for regional and state leadership.

GHG Emissions by Source for the City of Louisville, 2016



Source: Boulder County 2016 Greenhouse Gas Emissions Inventory and Modeling Report

Achieving electricity and energy reduction goals will not be easy. It will require community participation and engagement, significant regional partnership and ongoing creativity. Through our existing programs and partners and an action-oriented community, Louisville is well-positioned to lead at the community level as it pursues further energy efficiency and renewable integration.

## GOAL

Reduce energy consumption, promote energy efficiency in new and existing buildings, increase the use of carbon-free energy and transition away from fossil fuels.

## INTERNAL OBJECTIVES

### Reduce Louisville's municipal energy consumption

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#### NEAR TERM

Perform energy audits on all major City buildings.

Collect and track energy use data for all municipal buildings using utility data tracking software.

Implement facility audit recommendations in partnership with state and Xcel Energy programs and with consideration of resource limitations and other constraints.

#### MID TERM

Aim to achieve 80% of all points within the Energy and Atmosphere section of the USGBC LEED for new City building construction.

Develop facility and job specific behavior and operational modification strategies that reduce energy consumption.

### Increase Louisville's integration of carbon-free energy

---

#### NEAR TERM

Continue working with Xcel Energy to analyze existing infrastructure and available programs to understand opportunities.

Identify budget requests and grant opportunities required for implementation.

#### MID TERM

Meet all of Louisville's municipal electric needs with 100% carbon-free sources by 2025.

Explore expansion of capacity for on-site electric and solar thermal generation to decrease energy consumption.

## EXTERNAL OBJECTIVES

### Increase energy efficiency in residential and commercial properties across Louisville

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#### NEAR TERM

Adopt building codes and policies that promote energy efficiency in new and existing buildings.

Promote available efficiency and sustainability programs for residents and businesses.

#### MID TERM

Develop a campaign to encourage commercial/industrial benchmarking of energy consumption through the use of data tracking software.

Develop a targeted outreach strategy to engage facility managers and property owners on energy conservation efforts and resources.

Develop, market to the community and update Louisville guiding documents to further address energy conservation.

### Increase renewable energy adoption at residential and commercial properties in Louisville

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#### NEAR TERM

Consider a solar-ready building ordinance for new construction.

Identify barriers to renewable energy participation and facilitate implementation of solutions.

Promote low-interest financing for residents and businesses to integrate renewable energy.

#### MID TERM

Evaluate need and consider solar access policy.

# LEADING BY EXAMPLE

## MUNICIPAL EFFICIENCY UPGRADES

The City participated in nine Xcel Energy efficiency opportunities in 2019. The completed projects have an estimated energy savings of 679,416 kWh per year. That's the equivalent of taking 102 passenger vehicles off the road for one year!



# COMMUNITY IN ACTION



Community Food Share's solar array

## LOUISVILLE GREEN BUSINESS PROGRAM

Partnering with Boulder County's Partners for a Clean Environment (PACE), the [Louisville Green Business Program](#) provides assistance for all businesses to implement new sustainable practices and cost-saving measures, shaping a vibrant green economy here in Louisville. In 2019, 39 Louisville businesses received 2019 Green Business Awards in the Platinum, Gold, Silver, and Bronze categories.



Mayor Stolzmann presenting Christ the Servant Lutheran with their 2019 Platinum award



Green business representatives attend a solar workshop in Boulder



Transportation





# TRANSPORTATION

## INTRODUCTION

A city-wide multimodal transportation system is needed to meet the mobility and access needs of all users and to support health and wellness. This can be achieved by proactively planning land use and transportation infrastructure as a multimodal system that facilitates a balanced system and enhances travel by bicycle, transit, and foot.

As more people are spending time in Louisville, and traveling through the city to get to other regional destinations, it is important that the transportation network continues to develop to meet our changing and diversifying needs in a sustainable and inclusive manner. On October 1, 2019, Louisville adopted its first-ever Transportation Master Plan, which comprehensively evaluates transportation conditions and options throughout the community and region for all modes of transportation and establishes eight transportation goals, all of which focus on a balanced transportation system.



### 31%

of trips within Louisville, or to and from Louisville, are three or less miles in distance.

### 72%

of Louisville-based workers commute by driving alone.



### 38

Walk Score out of 100

Source: Louisville Transportation Master Plan, 2019

## GOAL

Provide and maintain sustainable and safe transportation choices for all Louisville residents to enhance community connectivity while reducing environmental impact.





## TRANSPORTATION

### INTERNAL OBJECTIVES

## Reduce the GHG emissions from the City fleet

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### NEAR TERM

Incorporate cyclist-safety and green driving training into employee education.

Continue evaluation of City fleet and usage to evaluate electrification and shared fleet potential.

Install anti-idle devices within pilot percentage of police vehicles and evaluate effectiveness and cost savings.

Consider a micro-mobility solution for employees to utilize between facilities (i.e. bike share, e-bikes).

### MID TERM

Consider down-sizing or eliminating underutilized vehicles from fleet.

Develop EV charging stations in strategic City locations for future PHEV and EV fleet integration.

Actively promote the adoption of hybrid, plug-in hybrid electric vehicle (PHEV), and battery electric vehicles (BEV) for Louisville's fleet as appropriate technology develops.

**Ensure all Louisville employees have access to multimodal means of local and commute travel, to reduce single-occupancy vehicle commute trips, and explore creative ways to incentivize employees to reduce the carbon footprint of their travel**

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## TRANSPORTATION

### NEAR TERM

Survey employees to better understand commuting patterns and available commuting solutions.

Incorporate EV infrastructure in any new construction and/or major remodels of city-owned buildings and provide employee pricing.

### MID TERM

Offer transportation incentives to employees, such as Regional Transportation District (RTD) EcoPasses, pass books, Vanpool subsidies, Bike to Work Day incentives, secure bike parking, e-bike charging stations and employee showers within each building.

Create new programs to mitigate vehicle miles traveled (VMT) such as parking cash-out programs, car-share opportunities, commute challenges with prizes and increased access to pool vehicles.

## LEADING BY EXAMPLE



### ELECTRIC VEHICLE CHARGING

In November 2019, the City completed installation of a Level 2 dual port at the Recreation and Senior Center. In efforts to achieve community climate action goals, the City is preparing for and implementing actions that support the increased use of plug-in electric vehicles (EVs) and decarbonization throughout Louisville and the region.



## TRANSPORTATION

### EXTERNAL OBJECTIVES

## Increase modal choice and decrease the single-occupancy vehicle share of local and regional trips

---

### NEAR TERM

Facilitate participation in initiatives and programs that encourage residents to use bicycle and pedestrian transportation and public transit programs.

Continue efforts and build-out surrounding recommended actions within the Transportation Master Plan.

Pursue Bronze or Silver Bicycle-Friendly Community status.

Continue efforts to coordinate on a regional level to implement a bike share or other micro-mobility program.

Coordinate and communicate public transit programs.

### MID TERM

Inventory and strategically improve Louisville bus stops to increase ridership, comfort and safety.

Evaluate a free ride program for income-limited residents.

## Support the public adoption of EVs and assist in the installation of public charging stations

---

### NEAR TERM

Support and promote installation of EV charging stations at commercial/industrial development and sites.

Provide educational opportunities and programs on PHEV and EV adoption to residents and commercial entities.



## TRANSPORTATION

### MID TERM

Evaluate EV-ready building code adoption.

Pursue opportunities for pooled purchasing programs for EVs and electric bikes with County or other regional partners.

Work with Xcel Energy through the Energy Future Collaboration to promote the public health benefits of EVs and alternative funding and initiatives.

## Collaborate with regional agencies to develop solutions to provide sustainable transportation management services

---

### NEAR TERM

Participate in transportation policy monitoring and advocacy.

### MID TERM

Work regionally to expand transit pass options and incentives.

Enhance shared transit facilities outlined in the [Transportation Master Plan](#).

Coordinate vehicle share and transit operations.





## COMMUNITY IN ACTION



### BIKE TO WORK DAY

Every third Wednesday in June, Bike to Work Day participants visit stations scattered throughout the community to celebrate bike commuting. In 2019, over 200 participants stopped by the City's breakfast station for pancakes, giveaways and music!





Waste

## INTRODUCTION

The City of Louisville is committed to developing policies, programs and infrastructure that help residents and businesses achieve responsible, sustainable waste management and support countywide efforts to reach zero waste "or darn near." These efforts include: providing curbside recycling and composting for residents; enhanced programming and education on zero waste practices, composting and hard-to-recycle; seasonal leaf and branch drop offs; and the safe management of hazardous materials.

Although high diversion rates are reported with residential premises under the City's waste hauler contract, the community-wide picture is much different as commercial and industrial entities, as well as exempted residential premises, landfill at a higher rate. Community-wide diversion presents opportunities to engage with new entities, work closely and creatively with neighboring municipalities and regional partners and educate both residents and visitors alike on the waste vision of Louisville.

## GOAL

Increase community and municipal waste diversion, striving for a goal of zero-waste, and manage resources responsibly and effectively.





## WASTE

### INTERNAL OBJECTIVES

## Work toward zero waste in City facilities, operations and events

---

#### NEAR TERM

Conduct facility waste characterization studies to determine the specific composition and quantity of waste generated.

Set diversion targets where appropriate and identify opportunities to minimize waste generation and increase diversion.

Identify opportunities to increase diversion or zero waste at City-sponsored events.

Develop employee education and behavioral change strategies.

#### MID TERM

Identify budget requests required for implementation.

## Develop internal green purchasing policies and new operational policies to further waste reduction

---

#### NEAR TERM

Assess existing purchases and contracts to identify opportunities to transition to more sustainable products or service.

#### MID TERM

Establish a set of criteria, specific to product or service categories, that can be used to identify preferred products and services.

Provide customized support to City departments to support implementation of sustainable procurement.



## WASTE

### EXTERNAL OBJECTIVES

# Create a culture of zero waste in Louisville through education, infrastructure and services

---

#### NEAR TERM

Develop zero waste education or outreach campaigns for single-family residences, multifamily residences and businesses.

Develop and adopt residential and commercial diversion goals.

Provide events and programs to dispose of hazardous and hard-to-recycle items.

#### MID TERM

Support food waste reduction and redistribution efforts.

Support multifamily and business compost collection systems and education.

## Increase commercial and construction material diversion

---

#### NEAR TERM

Continue to support and promote free waste audits and services to commercial entities through the Louisville Green Business program.

Evaluate policies and provide incentives for commercial entities to adopt zero waste collection programs.

#### MID TERM

Work with Boulder County and surrounding municipalities to understand residential and commercial deconstruction and incentivize construction and demolition materials recycling and reuse.



## WASTE

### EXTERNAL OBJECTIVES

## Support diversion through additional strategies

### NEAR TERM

Partner with local retailers to reduce the use of nonrecyclable, non-compostable and non-reusable containers.

Evaluate policies related to nonrecyclable items within Louisville.

Encourage and collaborate with Home Owner Associations to offer the same level of waste services as the City.

### MID TERM

Support circular opportunities for city-generated recyclables and compost.

Support capacity for construction and demolition materials transfer, sorting, processing and reuse.

Work with Boulder County to develop a construction and demolition tracking and reporting system and evaluate potential requirements.

## CITY-CONTRACTED WASTE COLLECTION



Boulder County Recycling Center

City-contracted collection includes a refuse, recycling and composting program as a part of our utility service to single-family homes (excluding some HOAs). This service is intended to lower costs for the majority of Louisville residents, reduce truck traffic and its associated pollution, as well as increase diversion rates. Rates are based on customer solid waste cart size and include recycling and compost collection.



# LEADING BY EXAMPLE



## RECYCLING + COMPOSTING AT CITY FACILITIES

From large City-sponsored events to high school graduation parties, our parks, shelters, and recreation areas are visited by tens of thousands of visitors annually. To increase community waste diversion, Louisville has begun expanding recycling and composting into Parks and Open Spaces. With grant funding from Boulder County, new composting and recycling receptacles have been placed at high-use recreation areas and park shelters such as Community Park, Pirate’s Park, Memory Square Park, Cottonwood Park, and other locations. Look for these bins the next time you visit our public spaces.

# COMMUNITY IN ACTION

## WASTE DIVERSION AT COMMUNITY EVENTS

The City hosted 11 events with Eco-Cycle’s help in 2019 – Labor Day, Senior Dinner, Taste of Louisville and 8 Street Faire events. During the events, attendees diverted 8,508.52 lbs of waste out of 9,347.53 total lbs – that’s an approximate 91% diversion rate!





Water



## INTRODUCTION

Clean, plentiful water supply is a critical necessity. Originating as snow melt in the Rocky Mountains, Louisville's water supply provides drinking water for residents and visitors, supports our economy and provides rich habitat for wildlife and enjoyable recreation within the community. Louisville obtains the majority of its water supply from South Boulder Creek as well as the Colorado and Fraser Rivers. To serve residents and businesses, the City has two water treatment plants with capacity to produce up to 13 million gallons per day.

Water in the semi-arid west is a precious resource, and drought is a continuous concern as the climate changes. Through partnerships, programs and resources, Louisville is committed to supporting efficiency and conservation and protecting water quality for our residents, businesses and wildlife populations.

## GOAL

Support water efficiency and quality and ensure a clean, reliable water supply for natural landscapes and the current and future community.



## INTERNAL STRATEGIES

### Reduce water usage and improve efficiency of water use within City buildings

---

#### NEAR TERM

Benchmark all City buildings' indoor water use and prioritize facilities for water audits based on resource use and reporting mechanisms.

Ensure that new City buildings achieve 80% of the U.S. Green Building Council's (USGBC) Leadership in Energy & Environmental Design (LEED) points within the applicable water efficiency section of the USGBC new construction process.

Set facility-specific efficiency targets where appropriate.

#### MID TERM

Implement facility audit recommendations with consideration of resource limitations and other constraints.

Develop facility and job specific behavior and operational modification strategies.

### Reduce City outdoor water usage

---

#### NEAR TERM

Benchmark all City buildings' outdoor water use, data collection on square feet of landscape being irrigated and service charges for all water-related utilities.

Replace irrigated turf around City buildings and on City property where appropriate.

#### MID TERM

Repair, upgrade, and adjust all irrigation systems with the most efficient available technologies over time.

Develop a funding strategy to expand the reuse system and increase recycled water usage on City landscaping and open spaces.



## INTERNAL STRATEGIES

### Improve and maintain water quality

---

#### NEAR TERM

Begin the development of a comprehensive Stormwater Management Plan.

Continue to update procedure manuals and operational plans related to water use, wastewater and storm water treatment and incorporate methods to promote sustainability and limit environmental impacts.

#### MID TERM

Evaluate street design specifications (such as road widths or type of curbing), erosion and sediment control ordinances, landscaping requirements, and other standards that encourage the use of Low Impact Development (LID) practices.

### Continue improving water quality and maintain the water supply on Parks & Open Space properties

---

#### NEAR TERM

Support ecological stream restoration and in-stream flow efforts to aid species recovery and improve water quality.

Promote best management practices for pest and weed control where possible or pilot in compliance with City adopted policy.

#### MID TERM

Research and consider Green Infrastructure Network (GIN) and low impact development (LID) strategies and management best practices for implementation on City-owned properties.

Develop a funding strategy to expand the reuse system and increase recycled water usage on City landscaping and open spaces.

## EXTERNAL STRATEGIES

### Expand water conservation education for City residents and businesses

---

#### NEAR TERM

Conduct a gap analysis of the water efficiency tools, resources and incentives for residents and businesses.

Continue to expand and promote available water conservation programs.

Consider community-wide goal setting.

#### MID TERM

Develop a campaign to encourage benchmarking of commercial water consumption through the use of data tracking software.

Employ a targeted outreach strategy to engage facility managers and property owners on water conservation efforts and resources.

Develop, market to the community and update Louisville guiding documents that address water conservation and quality.

### Maintain regional partnerships, collaboration and information sharing as it pertains to watershed health and supply

---

#### NEAR TERM

Engage in local source-water protection planning.

Continue to support the Keep It Clean Partnership and other intergovernmental agreements in minimizing pollution impacts in surface waters.

#### MID TERM

Coordinate with Boulder County on model greywater (water reuse) ordinance.

# LEADING BY EXAMPLE

## RECLAIMED WATER

Recycled water is wastewater treated to a standard that is suitable for irrigation and reuses water that would otherwise be lost downstream. Currently, Coal Creek Golf Course, Community Park, Miners Field and the Sports Complex are all currently served by recycled water and utilize all available capacity.



## COMMUNITY IN ACTION



A Louisville resident's finished replacement.

## GRASS TO GARDEN

Through partnership with Resource Central, water customers have the opportunity to swap 200 sq ft of maintained grass for a low-water, pollinator-friendly 'softscape' garden. Through the popular Grass to Garden program, water customers can receive a free Garden In A Box, a free Rain Bird Retrofit Kit to convert spray irrigation to drip irrigation if needed and a library of 'how to' guides and resources. Softscape gardens use up to 60% less water than traditional grass lawns and are a great option for low-use areas like sidewalk strips.



# Ecological Health





## INTRODUCTION

The City of Louisville owns or jointly owns 2,000 acres of open lands that serve a wide variety of purposes and values. Each open space property is designated with one or more classifications: Preserve, Protect, Visitor and Other. These lands provide invaluable habitat for many species of wildlife and plant communities, offer miles of trail system and enhance the livability and resiliency of Louisville.

As steward of these resources, protecting natural and cultural resources and providing opportunities for citizens to reconnect with nature and their cultural heritage is a priority for the community.



**250**

species of mammals, birds and reptiles in Louisville



**38**

years of Tree City USA designation



**32**

miles of trail system

## GOAL

Mitigate the impact of the built environment and human behavior on our natural systems and improve the health and resiliency of Louisville's ecosystems.





### INTERNAL OBJECTIVES

Manage the City's parks, open space, rights-of-way and other properties to maximize ecological health and biological diversity

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#### NEAR TERM

Support ongoing initiatives and efforts around existing tree canopy.

Expand the planting of pollinator-friendly native plants in parks and public landscapes where feasible and consider a xeriscape demonstration garden.

Promote best management practices for pest and weed control where possible in conjunction with City practices.

Consider testing alternative management techniques on pilot sites.

#### MID TERM

Update the Open Space Master Plan.

Identify opportunities to enhance policies related to ecological health and continue to develop implementation measures for policies already in place

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#### MID TERM

Further integrate ecosystem health and biodiversity factors in City plans and policies and consider during the initial stages of the planning process such i.e. public design standards, commercial design guidelines, etc.



## EXTERNAL OBJECTIVES

### Facilitate community-wide stewardship and increase awareness of the value of ecosystem health

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#### NEAR TERM

Continue to provide environmental education programs for residents of all backgrounds and ages.

Continue to integrate environmental education into community events i.e. Open House, Labor Day, etc.

Identify opportunities for interpretive signage and on-site messaging in Louisville's parks, open spaces and public spaces to enhance sense of place and ecological awareness.

#### MID TERM

Evaluate residential and commercial accessibility to nature and consider implementation and funding for Nature In the City campaigns.

### Minimize the volume of pollutants entering Louisville's terrestrial and aquatic ecosystems

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#### NEAR TERM

Begin the development of a comprehensive Stormwater Management Plan.

Promote and provide resources on best management practices for pest and weed control to residents and commercial entities.

#### MID TERM

Consider enacting policies that limit the use of systemic persistent neurotoxins linked to declines in invertebrate species and pollinators.

Increase awareness of the impacts associated with the use of chemical fertilizers, pesticides and other toxins on pollinator species and overall ecological health.



### EXTERNAL OBJECTIVES

## Maintain existing trails and add additional miles of trails

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### NEAR TERM

Pursue the addition of trail amenities on high-use trails such as wayfinding and informational signage, fix-it stations, benches and appropriate waste receptacles.

Promote and distribute the updated Parks, Open Space and Trails Map and ensure accessibility to promote usership and equity.

### MID TERM

Add more connectivity trails where appropriate as outlined in the Transportation Master Plan while preserving wildlife habitat and other natural resources.

## LOUISVILLE WILDLIFE

With habitat for nearly 250 species of mammals, birds and reptiles identified in Louisville, the parks, open spaces and trail properties are a place for enjoyment as well as for the wildlife. Urban-adapted species such as coyotes, red foxes, raccoons, prairie dogs and skunks are commonly seen while there is also the opportunity to encounter a Swainson's Hawk, American Kestrel or Great-Horned Owl.





# LEADING BY EXAMPLE



## INTEGRATED WEED MANAGEMENT PLAN

The Parks, Recreation, and Open Space (PROS) Department currently manages 1,435 acres of land within the City of Louisville following the Integrated Weed Management Plan (IWMP) that was adopted in 2009. Effective April 30, 2020, the City of Louisville has discontinued the use of the herbicides containing glyphosate and 2,4-D (2,4-dichlorophenoxyacetic acid) on all City owned and maintained properties, except for Coal Creek Golf Course.

## COMMUNITY IN ACTION



## VOLUNTEERING ON OPEN SPACE

Volunteers are a critical part of our community. Throughout the year, there many volunteer opportunities at our open spaces. Here, volunteers participated at a Pulling for Colorado event at Davidson Mesa focused on Common Mullein, a List C species on the Colorado Noxious Weed Act. Hand pulling and clipping seed heads are just two methods we use as part of our Integrated Weed Management Plan to combat noxious weeds on Open Space.



# Local Food & Agriculture

Photo:  
Louisville Community Garden by  
Mary Ann Heaney



## INTRODUCTION

From its production and distribution to its management as waste, the food system has local and global impacts on all three pillars of sustainability. Louisville's rural character and social, economic and environmental well-being are supported by the local food market and its producers, equitable access to food options and the preservation and sustainable use of agricultural lands.

In addition, supporting sustainable agricultural practices and local agriculture is a critical strategy in reducing greenhouse gas emissions. Carbon sequestration is a natural process that occurs when plants absorb carbon dioxide out of the atmosphere and store it into the ground below.

Louisville strives to support locally-based food and agriculture and the many benefits it provides to both the community and region.

## GOAL

Ensure a sustainable, local, safe and healthy food supply that is accessible to all and supported by our community.





## EXTERNAL OBJECTIVES

### Develop system of City-supported community gardens

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#### NEAR TERM

Evaluate barriers to community garden development in Louisville.

Consider policies or programs to remove barriers to community garden and urban agriculture development in Louisville.

#### MID TERM

Evaluate available opportunities to pursue an additional community garden on city owned property or through private-public partnership.

### Offer education and outreach on local food and agriculture

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#### NEAR TERM

Provide presentations about Louisville agricultural and backyard gardening resources to interested classes, agencies and organizations.

Provide local food and agricultural resources and information via social, web and print platforms.

Provide education and resources regarding pollinator guardianship.

#### MID TERM

Coordinate with local producers to provide resources and educational opportunities.

Expand connections between local food producers, residents and commercial entities within Louisville and Boulder County.



## EXTERNAL OBJECTIVES

### Increase accessibility of local food for vulnerable populations

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#### NEAR TERM

Identify existing local food assets and gaps throughout the City.

Assess barriers to local food production and purchase.

#### MID TERM

Foster relationships between the City, existing food stores, commercial entities and neighborhood residents to encourage expansion of local food availability.

Support and promote opportunities for all residents to participate in community supported agriculture and other programs.

Evaluate programs such as Double Up Food Bucks that make low-cost, locally grown fruits and vegetables available to vulnerable populations.

## COMMUNITY IN ACTION



### GET TO KNOW YOUR LOCAL FARM

Each year the City's Open Space Division celebrates Colorado Ag Day by partnering with 7th Generation Farm. The event boasts free farm tours, hay rides, kids planting activities, history presentations and more!



## COMMUNITY IN ACTION



### LOUISVILLE COMMUNITY GARDEN

Located at 1108 Lincoln Avenue, Louisville Community Gardens has been running since 2016, working to grow local and healthy produce while teaching participating residents how to plant, grow and maintain a garden. Developed by the City and the Sustainability Advisory Board, the Garden is now maintained by Denver Urban Gardens and the demand each year often exceeds the available plots.



# APPENDIX A - STRATEGY PRIORITY MATRIX

The Sustainability Action Plan update seeks to identify new objectives and strategies to impact the six topics areas within the plan. Of the policies, programs and projects, some have greater opportunity for impact and have been identified below. Among these, some require more resources, some require greater operational effort and some will have variable impact on the triple bottom line approach detailed previously in the City's sustainability vision. While greater impact strategies are highlighted in the strategy priority matrix, it should be noted that all strategies, both near and mid-term, detailed throughout the plan are necessary steps forward to meet our sustainability vision and topic area goals.

The 13 identified priority strategies meet one or more of the following conditions: policy changes or programmatic enhancements that achieve high impact or build necessary foundation for other strategies; partnerships already identified and/or engaged; time sensitive due to partner and/or regional context; lesser operational and financial resources; and addresses multiple impact areas of sustainability.

-  Environmental Impact
-  Social Impact
-  Economic Impact



	Description	Objective	Cost	Level of Impact	Staff Effort	Partners	Notes	Triple Bottom Line
Climate	Explore a mandatory or voluntary benchmarking requirement for commercial entities.	External	\$\$	High	High	Boulder County PACE Xcel Energy Regional municipalities	Denver, Fort Collins and Boulder have all implemented benchmarking policies. There have been initial discussions regionally.	 
	Identify barriers to renewable and energy efficiency participation and facilitate implementation.	External	\$\$\$	High	High	Boulder County PACE Xcel Energy Regional municipalities		  
	Ensure all departments and employees understand their role in achieving the climate vision and goals of City Council.	Internal	\$	High	Medium	None	Strategy is in progress with further integration work needed (i.e. Green Team development, communications, etc.)	
Energy + Water	Implement facility audit recommendations with consideration of resource limitations and other constraints.	Internal	\$\$\$	High	High	Xcel Energy Colorado Energy Office	Audit schedule is in progress. Energy efficiency decreases consumption. Grants and ESCO financing are available.	
	Consider solar-ready building ordinance.	Internal	\$	High	Medium	Boulder County PACE	With new development coming to Louisville, solar-ready requirements should be evaluated. Boulder has implemented policy with Lafayette seeing policy in 2020.	  

# APPENDIX A - STRATEGY PRIORITY MATRIX

	Description	Objective	Cost	Level of Impact	Staff Effort	Partners	Notes	
Water	Develop and employ targeted outreach to engage facility managers and property owners on energy and water conservation program and efforts.	External	\$\$	High	Medium	Boulder County PACE Xcel Energy Resource Central	Commercial entities and multi-family units provide an opportunity for more robust outreach and programmatic support as high emmitters.	
	Expand and promote available water conservation programs.	External	\$\$	High	Low	Boulder County PACE Resource Central	Current water programs available do not provide robust water conservation strategies for Louisville businesses.	
	Begin the development of a comprehensive Stormwater Management Plan.	Internal	\$\$	Medium	High	Boulder County Colorado Water Conservation Board	According to the EPA, stormwater pollution is the number one source of water pollution in the country. This strategy was outlined In the 2016 plan.	
Waste	Assess existing purchases and contracts to identify opportunities to transition to sustainable products and vendors.	Internal	\$\$\$	Medium	High	Boulder County PACE CDPHE Regional municipalities	Time sensitive as municipalities across the Front Range are In process of evaluating purchasing and procurement policies.	
	Evaluate policies and implement incentives to encourage commercial entities to adopt zero waste collection.	External	\$\$	High	High	Local businesses Boulder County PACE CDPHE Regional municipalities		
Transportation	Continue efforts and build-out surrounding recommended actions within the Transportation Master Plan (TMP).	External	\$\$\$	High	High	As identified in the TMP	Strategy is in progress.	
	Pursue Bronze or Silver Bicycle-Friendly Community status.	External	\$	Medium	Medium	None		
	Evaluate EV-ready building code adoption.	External	\$	High	Medium	Boulder County PACE Xcel Energy		

## APPENDIX B - 2020 UPDATE SUMMARY OF REVISIONS

This appendix provides an overview of the additions and revisions to the Louisville Sustainability Action Plan. Staff reviewed the 2016 Sustainability Action Plan and proposed revisions and additions to the Sustainability Advisory Board during the almost year long process for updating. Revisions are to ensure consistency, clarity and timeliness.

Major revisions to the SAP include:

- Separation of Climate and Energy into two separate subject areas
- Addition of Ecological Health as a subject area
- Inclusion of strategy timeframes (near term vs mid term)
- Inclusion of priority matrix

A summary of the goal and objective revisions for each section is provided below.

### CLIMATE

Added Climate as separate subject area

**Rationale:** Consistency with County

#### GOAL

2016 Goal: Move toward carbon neutrality and become more resilient to the effects of climate change.

**New Goal:** Achieve emissions reduction targets identified in Louisville's climate action goals and become more resilient to the effects of climate change.

**Rationale:** Consistency with Climate Action Goals

#### OBJECTIVES

**Added Internal Objective:** Reduce core municipal greenhouse gas emissions annually below the 2016 baseline through 2025

**Added External Objective:** Reduce core community greenhouse gas emissions annually below the 2016 baseline through 2030

**Rationale:** Consistency with Climate Action Goals

### ENERGY

#### GOAL

2016 Goal: Reduce energy consumption, increase the use of clean energy and transition away from fossil fuels.

**New Goal:** Reduce energy consumption, promote energy efficiency in new and existing buildings, increase the use of carbon-free energy and transition away from fossil fuels.

**Rationale:** Include energy efficiency and consistency with County goal

#### OBJECTIVES

2016 Internal Objective: Move toward carbon neutrality in all City buildings

2016 Internal Objective: Move towards carbon neutrality for all City operations

**New Internal Objective:** Reduce Louisville's municipal energy consumption.

**Rationale:** Simplifies objective into one and language consistency.



## OBJECTIVES

Added Internal Objective: Increase Louisville's integration of carbon-free energy

**Rationale:** Reflect new commitment and consistency with County

2016 External Objective: Increase energy efficiency and renewable energy adoption in the commercial and residential sectors

**New External Objective:** Increase energy efficiency in residential and commercial properties across Louisville

**New External Objective:** Increase renewable energy adoption at residential and commercial/industrial properties in Louisville

**Rationale:** Separate into two objectives

## TRANSPORTATION

### GOAL

2016 Goal: Encourage environmentally sustainable transportation choices and infrastructure, and support healthy lifestyles

**New Goal:** Provide and maintain sustainable and safe transportation choices for all Louisville residents to enhance community connectivity while reducing environmental impact.

**Rationale:** Integrate safety and community connectivity as established in Transportation Master Plan

### OBJECTIVES

2016 Internal Objective: Reduce SOV and GHG emissions and cost impact for City Staff

**New Internal Objective:** Reduce the GHG emissions from the City fleet

**New Internal Objective:** Ensure all Louisville employees have access to multimodal means of local and commute travel, to reduce single-occupancy vehicle commute trips, and explore creative ways to incentivize employees to reduce the carbon footprint of their travel

**Rationale:** Separates into two separate objectives and consistency with County

Removed Internal Objective: Develop balanced system that serves the entire City for users of all ages and ability levels

**Rationale:** External, not internal

Removed External Objective: Support residents and business telecommunicating efforts

**Rationale:** Strategy, not objective

Added External Objective: Support the public adoption of EVs and assist in the installation of public charging stations

**Rationale:** Reflect state and region's EV vision

2016 External Objective: Reduce SOV and GHG emissions

**New External Objective:** Increase modal choice and decrease the single-occupancy vehicle share of local and regional trips

**Rationale:** Provides clarity on objective

## WASTE

### GOAL

2016 Goal: Achieve zero waste and manage resources responsibly and effectively.

**New Goal:** Increase community and municipal waste diversion, striving for a goal of zero-waste, and manage resources responsibly and effectively.

**Rationale:** Recognize limitations to achieving zero waste



## OBJECTIVES

2016 Internal Objective: Reduce production and increase landfill diversion of waste products

**New Internal Objective:** Work toward zero waste in City facilities, operations and events.

**New Internal Objective:** Develop internal green purchasing policies and new operational policies to further waste reduction

**Rationale:** Separates objectives and provides clarity

Removed External Objective: Adopt financial incentives for waste reduction by residents and businesses

**Rationale:** Strategy, not objective

2016 External Objective: Develop educational programs to reduce business and residential waste

**New External Objective:** Create a culture of zero waste in Louisville through education, infrastructure and services

**Rationale:** Adds infrastructure and service

2016 External Objective: Divert commercial waste disposal

**New External Objective:** Increase commercial and construction material diversion

**Rationale:** Consistency with County

Added External Objective: Support diversion through additional strategies

**Rationale:** Consistency with County

## WATER

### GOAL

2016 Goal: Provide guidance for water efficiency and quality and ensure clean water for current and future community members.

**New Goal:** Support water efficiency and quality and ensure a clean, reliable water supply for natural landscapes and the current and future community.

**Rationale:** Consistency with County

### OBJECTIVES

Added Internal Objective: Reduce City outdoor water usage

**Rationale:** Adds outdoor water use considerations

Remove Internal Objective: Minimize use of treated water for non-potable functions

**Rationale:** Integrated as strategy

Added External Objective: Maintain regional partnerships, collaboration and information sharing as it pertains to watershed health and supply

**Rationale:** Consistency with County



## ECOLOGICAL HEALTH

### GOAL

Added New Goal: Mitigate the impact of the built environment and human behavior on our natural systems and improve the health and resiliency of Louisville's ecosystems.

**Rationale:** Consistency with County

### OBJECTIVES

All objectives new

## LOCAL FOOD + AGRICULTURE

### GOAL

2016 Goal: Ensure a sustainable, safe and healthy food supply that is accessible to all.

**New Goal:** Ensure a sustainable, local, safe and healthy food supply that is accessible to all and supported by our community.

**Rationale:** Consistency with County

### OBJECTIVES

Remove External Objective: Develop citizen-based food sales program

**Rationale:** Strategy, not objective

Added External Objective: Offer education and outreach on local food and agriculture

**Rationale:** Consistency with County

Added External Objective: Increase accessibility of local food for vulnerable populations

**Rationale:** Consideration of vulnerable populations and consistency with County

