

# SUSTAIN *Louisville*

2015 PROGRESS REPORT

ENERGY

ENVIRONMENT

TRANSPORTATION

ECONOMY

COMMUNITY

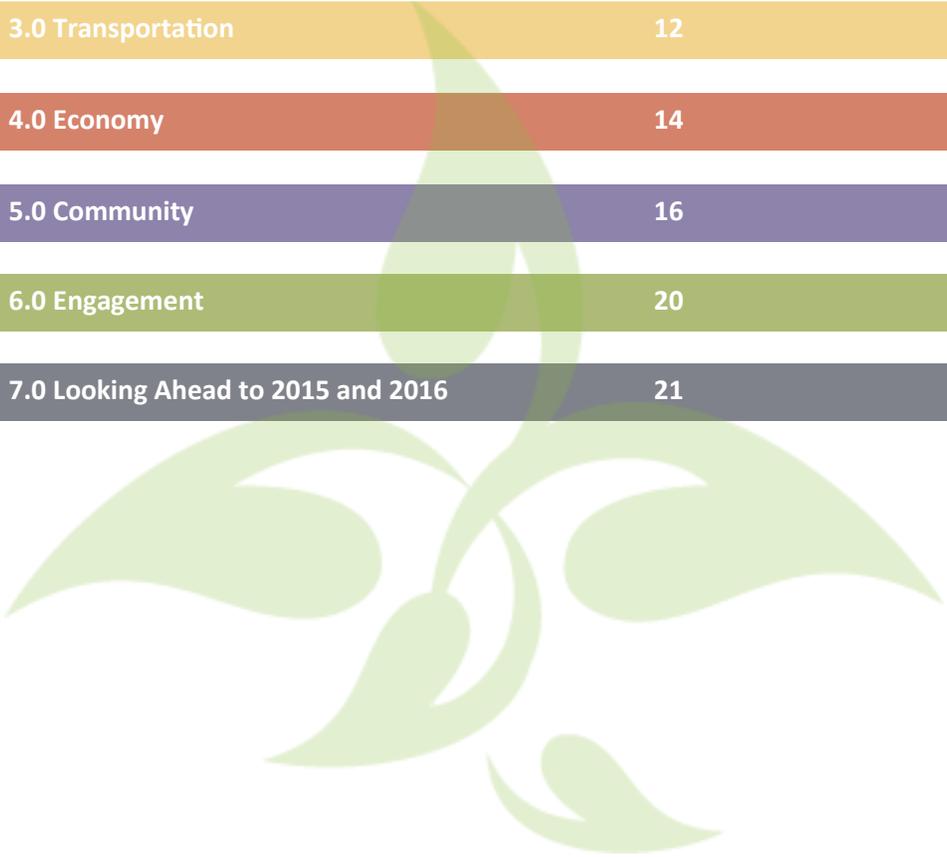
ENGAGEMENT



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GREG FISCHER, MAYOR

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## LETTER FROM THE MAYOR

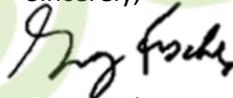
Dear Friends,

Another year has passed since the 2013 release of Sustain Louisville, the city's sustainability plan. The 2015 Sustain Louisville Progress Report highlights the city's continued focus on transparent, data-driven results to create a healthier, greener and more livable community. With the release of Louisville's first-ever Urban Tree Canopy Assessment, we have the data that is needed to set a citywide tree canopy goal and to better understand where trees are needed throughout the city. We are proud that businesses, institutions, nonprofits and residents are joining in to help increase our tree canopy. Following the collection of data on over 300 communitywide sustainability indicators, Louisville achieved a four-star (out of five) sustainability ranking – 13th in the nation to attain this achievement – on the community's commitment to a healthy, inclusive and prosperous city.

Louisville also exemplifies national leadership through its commitment to addressing urban heat. In 2015, the final pieces of the country's most comprehensive urban heat management study were collected for release in 2016. The data from the study will be used to keep Louisville cool through implementing proven strategies neighborhood by neighborhood with an emphasis on where we live and work. Other 2015 achievements include increased citywide recycling rates, improved bicycling and pedestrian facilities and the introduction of 10 electric buses in downtown Louisville.

We are proud of what Louisville has accomplished by using Sustain Louisville as a roadmap for becoming a more sustainable city. We are committed to enthusiastically pursuing our sustainability goals and look forward to what we will accomplish through the continued engagement and support of our partners throughout the community.

Sincerely,



Greg Fischer

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## EXECUTIVE SUMMARY

Louisville Metro Government is pleased to release the Sustain Louisville 2015 Progress Report. The progress report documents the accomplishments toward achieving the goals identified in Sustain Louisville, the city's sustainability plan. Published in 2013, Sustain Louisville charts a path toward making Louisville a more sustainable city. The plan's 17 goals are categorized under six focus areas of Energy, Environment, Transportation, Economy, Community and Engagement. The goals and initiatives outlined in Sustain Louisville promote and prioritize social, economic and environmental sustainability objectives.

In 2015, Louisville drew significant attention for its commitment to addressing social and environmental

issues. A royal visit highlighted multiple efforts to improve the city's air quality and engage various urban communities in sustainable agriculture. *Nature* covered Louisville's plans to develop the country's first and most comprehensive urban-heat management study and mitigation plan. The U.S. Conference of Mayors recognized Louisville for sustainability-related accomplishments on three different occasions in 2015. Moreover, Louisville earned four stars out of five within the STAR Communities framework for its sustainability metrics, programs and actions. Just four years after the Office of Sustainability was formed, Louisville has captured the interest of a global audience – all while working towards the goals in Sustain Louisville.

## SUSTAIN LOUISVILLE OBJECTIVES

1. Protect the environment and reduce Louisville's carbon footprint
2. Ensure the health, wellness and prosperity of all citizens
3. Create a culture of sustainability

## 2015 Key Successes

- Louisville Metro Government published the city's first comprehensive [Urban Tree Canopy Assessment](#).
- Louisville's Green Living Neighborhood Certification program and the Sheppard Square HOPE VI Revitalization project received Climate Protection Awards from the US Conference of Mayors. The Green Living program also received the US Conference of Mayors' Outstanding Achievement City Livability Award.
- Louisville earned a [4-STAR Community Rating](#) for sustainability excellence. Louisville was the 13th community in the nation to be recognized with a 4-STAR rating out of nearly 100 communities actively using the STAR Community Rating System.
- The Prince of Wales and The Duchess of Cornwall visited Louisville to learn about Louisville's commitment to improving air quality and developing a robust local food system. Their Royal Highnesses attended a cultural festival highlighting local sustainability and air quality projects at the Kentucky Center for African-American Heritage. The Prince of Wales gave a 30-minute speech at The Cathedral of the Assumption in which he discussed the delicate balance between Nature and Humanity and the importance of sustainability.
- LG&E transitioned from coal to natural gas at the Cane Run Power Plant. The utility unveiled a new 640-megawatt natural gas combined-cycle generating unit, replacing 13 percent of the utility's energy production from coal-fired units.



## INTRODUCTION

The Sustain Louisville 2015 Progress Report highlights the sustainability accomplishments of Louisville Metro Government agencies and its partners throughout the city. Goals and initiatives within the six focus areas were developed to help make Louisville more sustainable and to leverage community partnerships. Many of the goals in-

clude a commitment to citizen health and wellbeing as intended by the city's "health in all policies" goals. Sustain Louisville embraces "health in all policies" and expands it to encompass the preservation and enhancement of our natural environment.

The Office of Sustainability's mission is to promote environmental conservation, promote the health, wellness and prosperity of our citizens, and embed sustainability into the culture of the Louisville community.

Sustainability is traditionally defined as "meeting today's needs without compromising the ability of future generations to meet their own needs" (Brundtland Commission, 1987). Sustain Louisville is formed around this definition and uses a "triple bottom line approach," which recognizes the interconnectivity of people, prosperity and the planet. The objectives of Sustain Louisville incorporate the triple bottom line approach through its commitment to promoting and prioritizing the social, economic and environmental facets in the Louisville community.



## SUSTAIN LOUISVILLE 2015 PROGRESS REPORT

Sustain Louisville identifies 17 goals within six focus areas. Each initiative is identified as complete, underway, planned (one to three years away) or proposed (four years away or more). A total of 82 initiatives are listed in the plan, 38 of which are underway. In 2015, five new initiatives were added, two initiatives changed from planned or proposed to underway, five initiatives were completed and two initiatives are no longer being pursued. A total of 20 initiatives have been completed since Sustain Louisville was published.

Key successes are highlighted for each focus area and the related goals and initiatives are listed in a table. Metrics, where established, are reported in a "by the numbers" box. Completed initiatives are described and details are provided for initiatives with significant progress. In 2015, Goals 8 and 16 were revised to better align with the city's related program goals as shown in the table below.

GOAL		TARGET DATE
8	Reduce vehicle miles traveled 500,000 miles daily by 2040 <i>Formerly – Reduce vehicle miles traveled 20%</i>	2040 2025
16	Increase the tree canopy to 45% coverage <i>Formerly – Establish a robust urban tree canopy</i>	Ongoing 2018

# GOALS

## Sustain Louisville—Goals Summary

FOCUS AREA	GOAL	TARGET DATE
1.0 Energy	1. Decrease per capita energy use citywide 25%	2025
	2. Decrease energy use in city-owned buildings 30%	2018
2.0 Environment	3. Mitigate the risk of climate change impacts	2018
	4. Achieve and maintain National Ambient Air Quality Standards	Ongoing
	5. Improve waterway quality	2024
	6. Divert 90% of solid waste from the landfill	2042
3.0 Transportation	7. Decrease transportation-related greenhouse gas emissions 20%	2020
	8. Reduce vehicle miles traveled by 500,000 miles daily by 2040	2040
4.0 Economy	9. Provide business opportunities for clean economy organizations and innovators	2020
	10. Promote a comprehensive local food system	2018
5.0 Community	11. Support an equitable distribution of local and healthy foods	2018
	12. Increase access to green space and recreation resources	2015
	13. Incorporate sustainability into the Land Development Code and the Comprehensive Plan	2018
	14. Maintain and expand a robust parks system	Ongoing
	15. Expand green infrastructure incentives citywide	2018
	16. Increase the tree canopy to 45% coverage	Ongoing
6.0 Engagement	17. Engage the community in sustainability practices and principles	Ongoing



"We must remember that the ultimate source of all economic capital is Nature's capital. Our ability to adapt to the effects of climate change, and then perhaps even to reduce those effects, depends upon us adapting our pursuit of unlimited economic growth to that of sustainable economic growth. And that depends upon basing our approach on the fundamental resilience of our ecosystems. Ecosystem resilience leads to economic resilience."

– *The Prince of Wales, during his visit to Louisville on March 20, 2015*



## 2015 Key Successes

- Louisville moved to 24th (from 25th in 2014) on the Environmental Protection Agency’s list of Top Cities with the most ENERGY STAR certified buildings.
- Seven buildings in the community received U.S. Green Building Council Leadership in Energy and Environmental Design (USGBC LEED) certification – one Platinum, one Gold, two Silver and three Certified.
- The city’s Old Jail building renewed its [ENERGY STAR Certification](#).

## Goals and Initiatives

### ENERGY

#### GOAL 1. Decrease per capita energy use citywide 25% by 2025

Launch an ENERGY STAR Building Certification Program	Completed 2014
Assess renewable energy incentive programs and legislative options	Underway
Launch a cool and green roof program	Underway
Install a “living laboratory” solar demonstration project	Planned
Establish citywide renewable energy goals and strategies	Planned
Launch a green building incentive program	Planned
Launch an education program to promote energy efficiency and energy conservation	Planned
Require an Energy Star building benchmark disclosure for commercial buildings	Planned
Increase the use of renewable energy technologies in city-owned buildings 50% by 2025	Proposed

#### GOAL 2. Decrease energy use in city-owned buildings 30% by 2018

Launch the second energy savings performance contract for city-owned buildings	Completed 2013
Implement an Energy Management Policy for city-owned buildings	Underway
Identify sustainability goals for city government capital projects	Planned



# 1.0 ENERGY

## PROGRESS ON GOALS AND INITIATIVES

### Goal 1: Decrease per capita energy use citywide 25% by 2025

Citywide per capita energy use was 3% above baseline projections at 100 million British thermal units (MMBtu) in 2015. Louisville’s 2015 per capita electricity use was 2% below baseline projections, and per capita natural gas use was 6% above baseline projections. Energy use data for these metrics were weather normalized.

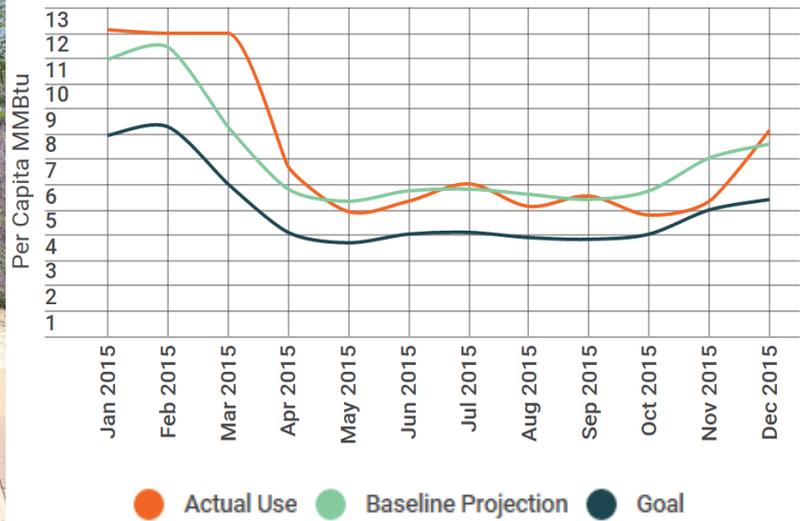
- The Kentucky Legislature passed the Energy Project Assessment District (EPAD) bill in March 2015 that allows an alternative financing option for renewable energy and energy efficiency projects on multi-family, commercial and industrial buildings. Local legislation efforts are underway to develop a program based on the state legislation.
- The Office of Sustainability partnered with the [Louisville Energy Alliance](#) to host a [Portfolio Manager](#) workshop. Portfolio Manager is a free, online software program offered by the US Environmental Protection Agency (EPA) for tracking energy use in commercial buildings.

#### GOAL METRIC—BY THE NUMBERS

**Per Capita Energy Consumption**  
Baseline— 96 MMBtu per capita  
Actual—100 MMBtu per capita  
Target— 73 MMBtu per capita



2015 PER CAPITA ENERGY CONSUMPTION  
LOUISVILLE, KY



### Goal 2: Decrease energy use in city-owned buildings 30% by 2018

#### GOAL METRIC—BY THE NUMBERS

##### City-owned Building Energy Consumption

Baseline: 2010 — 290,094 MMBtu

Current: 2015 — 259,370 MMBtu

Target: FY2018 — 203,066 MMBtu

From 2010 to 2015, energy use in buildings managed by the city’s Department of Fleet and Facilities decreased 11%, from 290,094 to 259,370 MMBtus. From 2014 to 2015, energy use decreased 4%. In 2016, efforts will be made to include energy use tracking for all city-owned buildings.



## 2.0 ENVIRONMENT

### 2015 Key Successes

- The [Green Living Neighborhood Certification program](#) and the [Sheppard Square HOPE VI Revitalization](#) (Sheppard Square) received U.S. Conference of Mayors' Climate Protection Awards.
- GPS devices were installed on 481 Metro-owned fleet vehicles to increase fuel efficiency and decrease idling times.
- The Air Pollution Control District's Kentuckiana Air Education (KAIRE) program received \$480,000 from the Federal Highway Administration's and Federal Transit Administration's Congestion Mitigation and Air Quality Improvement Program to continue educating the public about the health effects of poor air quality and encourage behavior that will help improve local air quality.
- [The Institute for Healthy Air, Water and Soil](#), in partnership with Louisville Metro Government, Propeller Health and the Robert Wood Johnson Foundation, launched AIR Louisville, a data-driven project that uses sensors attached to inhalers to collect health and location information from users.
- The Solid Waste Division of Public Works started developing the 10 Year Solid Waste Management Master Plan to meet the Mayor's goal to divert 90% of Louisville's waste from the landfill by 2042.
- Mayor Fischer and the Solid Waste Division of Public Works launched the [Green Fork Awards](#), a program to recognize restaurants that consistently comply with Wet-Dry program requirements.
- The Metropolitan Sewer District (MSD) reduced the number of sanitary sewer overflows by 75% since work began in 2011.



### Goals and Initiatives

## ENVIRONMENT

#### GOAL 3. Mitigate the risk of climate change impacts by 2018

Identify and implement climate change adaptation and resilience goals and best practices	Underway
Implement strategies to mitigate the urban heat island effect	Underway
Perform a community-wide greenhouse gas inventory	Planned

#### GOAL 4. Achieve and maintain National Ambient Air Quality Standards – Ongoing

Expand and enhance the city's Advanced Traffic Management System	Underway
Explore opportunities to fund conversion of fuel used by city heavy-duty fleet vehicles to compressed natural gas	Underway
Form a partnership to implement an alternative fuel and advanced technology vehicle strategy	Planned
Implement an alternative fuel vehicle replacement strategy for the city fleet	Planned
Increase city fleet vehicle biodiesel fuel blend to B10 or greater	Proposed

#### GOAL 5. Improve waterway quality by 2024

Develop a pilot project to restore 10 miles of riparian vegetation	Underway
Reduce the annual number of combined sewer overflows into Louisville's waterways – <b>NEW!</b>	Underway
Reduce the annual number of sanitary sewer overflows into Louisville's waterways	Underway
Launch a program to decrease the amount of impervious surfaces that impact watershed systems	Planned

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## 2.0 ENVIRONMENT

### Goals and Initiatives (continued)

#### ENVIRONMENT

##### GOAL 6. Divert 90% of solid waste from the landfill by 2042

Increase recycling citywide 25% by 2015	Completed 2015
Launch a food waste compost pilot project in school cafeterias	Completed 2014
Launch a plastic bag ban for residential yard waste	Completed 2014
Promote recycling and food waste composting at all city-sponsored events	Completed 2014
Achieve 90% residential recycling participation by 2025	Underway
Establish partnerships to champion education and awareness campaigns on waste reduction practices	Underway
Expand recycling for commercial buildings, restaurants, retail stores and multi-tenant apartments	Underway
Offer composting, yard waste reduction and recycling workshops	Underway
Launch a residential food waste compost pilot program	Planned
Expand participation in food waste composting to institutional cafeterias citywide	Proposed
Investigate alternatives to landfill waste disposal practices	Proposed

#### PROGRESS ON GOALS AND INITIATIVES

##### Goal 3: Mitigate the risk of climate change impacts by 2018

- The Office of Sustainability partnered with the city's Emergency Management Agency and the Air Pollution Control District (APCD) on the Rockefeller Foundation's 100 Resilient Cities Challenge application. Louisville was announced as a recipient in early 2016.
- The Emergency Management Agency continued preparation of the Multi-Hazard Mitigation Plan update. The document includes a Five-Year Action Plan that lists projects to address risks from flooding, extreme heat, droughts and other large storms or hazards. In 2015, work continued on [Louisville's urban heat island management study](#), which was released in early 2016.

##### Goal 4: Achieve and maintain National Ambient Air Quality Standards – Ongoing

- On April 7, 2015, the EPA revised the Louisville area's designation for the 2012 Annual Fine Particulate (PM<sub>2.5</sub>) standard (12 µg/m<sup>3</sup>) from "nonattainment" to "unclassifiable," a more desirable designation. In addition, the EPA will soon respond to a redesignation request based on data from 2013 – 2015 showing the area was meeting the older 1997 PM<sub>2.5</sub> standard (15 µg/m<sup>3</sup>). The EPA certified 2015 air monitoring data submitted by APCD for criteria pollutants in the Clean Air Act.
- GPS devices were installed on 481 Metro-owned fleet vehicles to increase fuel efficiency and decrease idling times. Within the first five months of the program, the city saved 49,000 pounds of CO<sub>2</sub>e emissions, which is the same as eliminating 53,268 miles driven by an average passenger vehicle.
- A consultant was hired in 2015 to complete the project to wirelessly coordinate and retime traffic signals. Final metrics from the project will quantify vehicle emission reductions, fuel savings and hours of delay saved.
- The city received grant funds to purchase two compressed natural gas (CNG) garbage trucks that should arrive in 2016. In all, the city's alternative fuel fleet has grown to 36 hybrid and electric vehicles.

## 2.0 ENVIRONMENT

### Goal 5: Improve waterway quality by 2024 (Formerly by 2015)

Louisville has 84 stream segments that do not meet the Clean Water Act standards and thus fall on the 303(d) list. In 2015, MSD submitted two stream segments to be considered for removal from the list. MSD is awaiting the request results, which will be released by the Kentucky Division of Water in 2016.

- MSD again reduced sanitary sewer overflows outside of the urban services district by 418 in 2014 and 191 in 2015. MSD continued work on its long-term plan to reduce the volume and frequency of combined sewer overflows (CSOs) that primarily occur within the Urban Services District. This system was originally designed to collect rainwater and sewage in one pipe. CSOs occur when heavy rains overload the sewer system and excess sewage flows into our waterways, impairing the health of our lakes, streams and rivers. In 2015, MSD reduced the annual volume of CSOs from 6.1 billion gallons to 3.6 billion gallons over the 2001 baseline.
- Mayor Fischer and then Metro Council President Tandy established Louisville's first ever Flood Mitigation workgroup to develop and suggest solutions to issues caused by frequent rain events.
- Metro Parks received a grant from the U.S. Army Corps of Engineers (USACE) to create a conceptual plan for a 1.6-mile ecological restoration along the banks of the Beargrass Creek. The project will also include plans for a walking and biking path that will connect the missing link of the Beargrass Creek Greenway between Cherokee Park and Waterfront Park. USACE provided \$75,000 and members of the Louisville community donated just over \$75,000 in matching funds.

#### GOAL METRIC—BY THE NUMBERS

##### Number of Stream Segments on the 303(d) List

Baseline: 2010 — 86

Most Recent Data: 2012\* — 84

Target: 2024 — 78

\*The 303(d) list is published every two years.

#### BY THE NUMBERS

##### Reduce the annual number of combined sewer overflows into Louisville's waterways — NEW!

##### Gallons of CSOs during a typical year

Baseline: 2001 — 6.1 Billion

Current: 2015 — 3.6 Billion

Target: 2020 — 340 Million

##### Reduce the annual number of sanitary sewer overflows into Louisville's waterways

##### Number of annual SSOs

Baseline: 2011 — 786

Current: 2014 — 418

Target: 2024 — 0

### Goal 6: Divert 90% of solid waste from the landfill by 2042

#### GOAL METRIC—BY THE NUMBERS

##### Jefferson County Solid Waste Diversion Rate

Baseline: 2008-2011 Average — 48.7%

Current: 2012-2015 Average — 53.6%

Target: 2042 — 90.0%

The percentage of waste materials diverted from the landfill has increased five percentage points since the 2008-2011 rolling average baseline. The metric measures materials generated from all sources including residential, commercial and industrial sectors. The 10 Year Solid Waste Management Master Plan was launched in 2015 to provide direction on how to achieve this goal. The study will focus on waste composition, waste collection system evaluation and plan development.

## 2.0 ENVIRONMENT

### Goal 6: Divert 90% of solid waste from the landfill by 2042 (continued)

- As a result of work completed by Public Work’s Solid Waste Management Division (SWMS) and its partners, recycling participation in the suburban areas of Jefferson County increased 6.5 percentage points over the 2008-2011 rolling average baseline.
- A partnership with Coca Cola launched the [Recycle & Win](#) program through which participants were entered into a drawing to win a Kroger gift card.
- Mayor Fischer declared October 19th Reuse Day in Louisville, and a new logo was released to promote the importance of reducing, reusing and recycling.
- A [technical assistance guide](#) was developed to help multi-tenant apartments building owners set up recycling programs.
- The [Wet-Dry Recycling Program](#), which is explained in this [video](#), was expanded to Sheppard Square and seven voluntary companies.
- Recyclable materials are sorted from all litter baskets collected in the Urban Services District.
- The [Green Fork Awards](#) program launched to recognize food service participants that collected the most organic waste and the first round of winners were announced in early 2016.
- Public presentations were held on recycling and yard waste reduction and composting.
- SWMS published a [compost brochure](#) in partnership with the Jefferson County Cooperative Extension Service.
- A Love ‘Em and Leave ‘Em (LeLe) educational campaign and [video](#) was launched to encourage residents to leave yard waste in place.
- In partnership with Jefferson County Public Schools (JCPS), lesson plans on sustainability practices were developed for grades K-12.

#### BY THE NUMBERS

##### Achieve 90% residential recycling participation by 2025

###### Diversion rate

Baseline: 2008-2011 Average — 22.0%  
Current: 2012-2015 Average — 28.5%  
Target: 2042 — 90.0%

##### Offer composting yard waste reduction and recycling workshops

###### Yard waste collection amounts

Baseline: 2014 — 10,816 tons  
Current: 2015 — 9,049 tons



#### Initiative Completed—Increase recycling citywide 25% by 2015

#### BY THE NUMBERS

##### Recycling Rate

Baseline: 2008-2011 Average — 21.9%  
Current: 2012-2015 Average — 28.5%  
Target: 2015 — 27.4%

Residential and commercial recycling rates have increased 30% (or 6.6 percentage points) since the 2008-2011 average baseline. This metric measures all main stream recyclable materials, excluding construction, demolition and industrial metals waste materials.

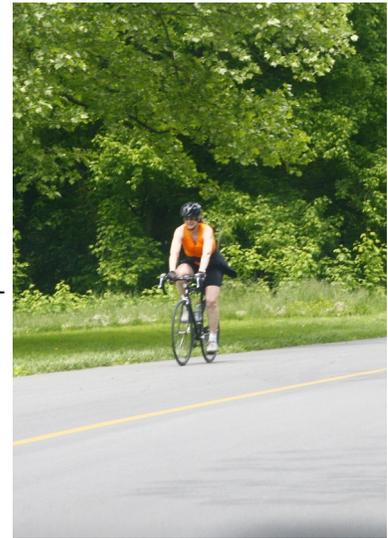




# 3.0 TRANSPORTATION

## 2015 Key Successes

- The Transit Authority of River City (TARC) replaced diesel-powered trolleys with 10 electric buses.
- TARC announced federal funding for five more all-electric ZeroBus vehicles.
- Louisville received a [Silver level Bicycle Friendly Community rating](#) from the League of American Bicyclists.
- Louisville Metro Government announced its Look Alive Louisville campaign to promote pedestrian safety.
- A 2.66 mile segment of the Louisville Loop opened in Southwest Louisville.
- Metro Parks partnered with a local bike shop to install 10 bike fix-it stations throughout Louisville’s parks system.



## Goals and Initiatives

### TRANSPORTATION

#### GOAL 7. Decrease transportation-related greenhouse gas emissions 20% by 2020

Identify sustainability goals for the strategic multimodal transportation plan and the Metropolitan Transportation Plan that promote transit-oriented development	Underway
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#### GOAL 8. Reduce vehicle miles traveled 500,000 miles daily by 2040

Increase bicycle facilities by 40 lane miles within three miles of the Central Business District	Completed 2014
Investigate feasibility of car share and ride share programs	Completed 2014
Achieve Gold Level Bicycle Friendly Community Status with the League of American Bicyclists	Underway
Increase bicycle lanes and shared lane markings to 200 miles by Fiscal Year 2017 – <b>NEW!</b>	Underway
Increase bicycle ridership 100% from 2012 levels	Underway
Increase TARC ridership 25%	Underway
Launch a bike share program	Underway
Reduce identified gaps in Louisville’s sidewalk network	Underway

## PROGRESS ON GOALS AND INITIATIVES

### Goal 7: Decrease transportation-related greenhouse gas emissions 20% by 2020

#### GOAL METRIC—BY THE NUMBERS

##### GHGs from Transportation-Related Sources

Baseline: 2006 — 4.0M tons CO<sub>2</sub>e

Current: 2015\* — 4.3M tons CO<sub>2</sub>e

Target: 2020 — 3.2M tons CO<sub>2</sub>e

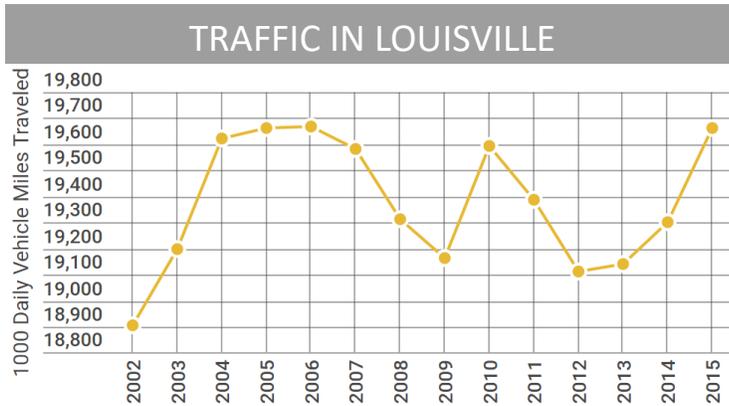
\*2015 Results are estimated using modeled projections. Data reported for this goal include on-road and non-road (e.g., airplanes, tractors, lawn mowers) sources. Results are developed by APCD every three years using a model. Discernable differences are not expected on an annual basis.

In 2015, work continued on Move Louisville, the city’s long-range transportation plan. The document was released in spring 2016. An update to the 2006 transportation greenhouse gas inventory is anticipated in 2017.

## 3.0 TRANSPORTATION

### Goal 8: Reduce vehicle miles traveled 500,000 miles daily by 2040

(Formerly—Reduce vehicle miles traveled 20% by 2025)



The language in this goal was updated to reflect the recommendations of Move Louisville, which was released in early 2016. Louisville Metro Government continued progress on projects to improve transportation options.

- A \$16.9 million TIGER grant was received from the US Department of Transportation for the implementation of Bus Rapid Transit on Dixie Highway. The grant, coupled with state and local funds, will be used to improve transit, vehicular efficiency, pedestrian connectivity and safety along the corridor.
- From 2012 to 2014, bicycle ridership increased by 67% or 0.2 percentage points over the 2012 baseline. This is the highest ridership rate Louisville has ever recorded.
- Louisville improved its Bicycle Friendly Community status from Bronze to Silver in spring 2015.
- In the Central Business District, the city's first separated bike lane with delineated posts was installed on 6th Street.
- Public Works began installing green pavement markings in areas prone to conflict between cars and bicycles. A new goal was set to increase bicycle facilities to 200 miles by FY2017. The bike share program is now expected to launch in 2017.
- TARC ridership increased 1.5% over the baseline, from 14.21 million boardings in 2010 to 14.62 million in 2015. After introducing 10 all-electric buses within its fleet, TARC rolled out 12 new clean-diesel coaches equipped with Wi-Fi. TARC will save an estimated \$4.21 million on fuel and maintenance savings over the projected 16-year life of the new ZeroBus fleet.
- In partnership with Public Works, TARC made significant improvements on sidewalks and ADA access to transit stops, shelters and other transit amenities.
- Public Works has reduced linear feet of sidewalks in poor condition from 33,929 in December 2012 to 26,605 in December 2014 and 17,186 in December 2015. Public Works also began filling sidewalk gaps identified in the [Pedestrian Master Plan](#).

#### GOAL METRIC—BY THE NUMBERS

##### Daily Vehicle Miles Traveled in Louisville

Baseline: 2006 — 19,666,000

Current: 2015 — 19,662,000

Target: 2025 — 19,166,000

#### BY THE NUMBERS

##### Increase bicycle lanes and shared lane markings — NEW!

##### Miles of bicycle lanes and shared lane markings

Baseline: 2014 — 105.5

Current: 2015 — 135

Target: FY2017 — 200

##### Increase bicycle ridership 100% by 2012 levels

##### Percent of the Louisville community commuting by bicycle

Baseline: 2012 — .3%

Current: 2014\* — .5%

Target: 2025 — .6%

\*2014 is the current year because 2015 data is not yet available through the U.S. Census' American Community Survey.

##### Increase TARC Ridership 25%

##### Persons riding TARC buses

Baseline: FY2010 — 14.41 million

Current: FY2015 — 14.62 million

Target: FY2025 — 18.01 million



# 4.0 ECONOMY

## 2015 Key Successes

- Through the city’s [Go Green Loan program](#), Butcherblock, LLC received \$156,500 and Wetterer and Clare Attorneys received \$99,820. Both loans helped fund solar panel installations.
- A brownfields area-wide plan and implementation strategy was developed for the Germantown/Shelby Park Rail Corridor, an area fraught with vacant and abandoned factories where the threat of soil contamination makes redevelopment more complicated.



## Goals and Initiatives

### ECONOMY

#### GOAL 9. Provide business opportunities for clean economy organizations and innovators by 2020

Provide opportunities for the adaptive reuse of brownfields	Underway
Establish a Green Workforce Advisory Team	Planned
Establish Green Districts to promote and leverage existing green technology efforts	Planned
Increase the number of businesses actively engaged in greening their operations 20% by 2018	Planned
Launch a clean economy business plan contest	Planned
Research best practices for green business incentive programs	Planned

#### GOAL 10. Promote a comprehensive local food system by 2018

Conduct a study of local food production	Completed 2015
Promote opportunities for community and market gardens on vacant and abandoned properties	Completed 2014
Incorporate Urban Agriculture Guidance in 2013 Land Development Code Amendments	Completed 2013
Incentivize five small businesses processing Kentucky-raised foods to locate in the Portland neighborhood	Underway
Provide education and direct marketing/purchasing support for farmers and businesses working with local food	Underway
Support and expand the institutional use of local food	Underway
Open the west Louisville FoodPort by 2017	No Longer Pursuing

## PROGRESS ON GOALS AND INITIATIVES

### Goal 9: Provide business opportunities for clean economy organizations and innovators by 2020

- City staff, in partnership with the University of Louisville (UofL) Center for Environmental Policy and Management (CEPM) and a local consulting firm, completed the Louisville Central Rail Corridor Area-wide Brownfields Planning Project and released the [final report](#).
- Louisville Metro Government obtained a grant from the Kentucky Department of Environmental Protection for environmental assessments of the Louisville Gardens property and at the Waste Transfer Station for placement of a Google fiber hut.
- A Cleaner Commonwealth Fund grant was secured for site preparation at the former Rhodia property.
- The city and CEPM are developing a Brownfields Community Benefit calculator.

## 4.0 ECONOMY

### Goal 10: Promote a comprehensive local food system

- Events were held to connect buyers with farmers and form partnerships between organizations working to promote the use of Kentucky-raised food within college and university dining services operations.
- The [Louisville Farm to Table Program](#) supported the purchase of \$40,000 worth of Kentucky-raised produce by a local food processor. This processor used the produce to prepare ready-to-heat entrees for local public school districts.
- Jefferson County Public Schools increased its annual purchase of local foods by 30% in the 2014-15 school year as a result of support from the Louisville Farm to Table Program.
- The initiative to open the west Louisville FoodPort is no longer being pursued due to lack of program funding.

#### BY THE NUMBERS

##### Support and expand the institutional use of local food

###### Institutional Local Food Purchasing

Baseline: 2012 — \$150,572

Current: 2015 — \$1,275,353

Target: 2025 — Continual Growth

###### Number of Farmers/Businesses Supported

Baseline: 2012— 150

Current: 2015 — 220

Target: 2025 — Continual Growth

#### Initiative Completed—Conduct a study of local food production

To better understand how much food is produced regionally and how to support farmers interested in producing more local food, Louisville Metro Government and the Kentucky Center for Agriculture and Rural Development completed a study of local food production.





## 2015 Key Successes

- The Division of Community Forestry was established within the city’s Office of Sustainability. The Division received funding to expand its capacity with the addition of a Community Forestry Assistant.
- The [Urban Tree Canopy Assessment](#) was released in March 2015.
- In 2015, the Louisville Metro Tree Advisory Commission fulfilled its mission and Mayor Fischer announced the creation of [Trees Louisville](#), a new non-profit dedicated solely to trees.
- The Office of Sustainability announced a [Green Infrastructure Incentive Program](#) with a \$100,000 fund.
- Three more farmers markets began accepting Supplemental Nutrition Assistance Program (SNAP) benefits, increasing the access that low-income families have to purchase local and healthy foods.

## Goals and Initiatives

### COMMUNITY

#### GOAL 11. Support an equitable distribution of local and healthy foods by 2018

Open three new farmers markets or local food retail outlets in underserved areas of the community	Completed 2015
Develop a step-by-step guide for citizen engagement in urban agriculture	Completed 2014
Expand the use of electronic benefit transfer mobile readers to three farmers markets	Completed 2013
Expand the use of electronic benefit transfer mobile readers by at least six additional farmers markets or local food retail outlets	Underway
Identify strategies to incentivize grocers to offer healthy food	Planned

#### GOAL 12. Increase access to green space and recreation resources—Ongoing

Provide nature-based recreation for six schools	Completed 2015
Provide expanded and equitable access to nature for children and families – <b>NEW!</b>	Underway
Install 10 Mayor’s Miles locations	No Longer Pursuing

#### GOAL 13. Incorporate sustainability into the Land Development Code and the Comprehensive Plan by 2018

Identify standard sustainability elements to include in all small area, corridor and neighborhood plans	Completed 2015
Establish priority sustainability components to include in the Land Development Code and Comprehensive Plan	Underway
Implement a green pilot project from the SoBro Neighborhood Plan	Underway

#### GOAL 14. Maintain and expand a robust parks system - Ongoing

Acquire 4,000 acres of park land and conservation easements	Underway
Increase the acreage of natural areas land under active management 25%	Underway

#### GOAL 15. Expand green infrastructure incentives citywide by 2018

Identify green infrastructure best practices and launch an incentive program	Completed 2014
Provide incentives to increase the amount of captured impervious area by 1 million square feet	Underway

#### GOAL 16. Increase the tree canopy to 25% coverage—Ongoing

Complete an urban tree canopy analysis and establish tree-planting goals	Completed 2015
Complete planting of 5,000 trees in 2014	Completed 2014
Complete planting of 10,000 trees	Completed 2013
Establish community partnerships to implement strategies to mitigate the UHI effect	Underway
Establish partnerships to assist with educating the community on the benefits of trees – <b>NEW!</b>	Underway
Update the Land Development Code to better support the growth and protection of Louisville’s tree canopy	Underway
Develop a forestry management plan – <b>NEW!</b>	Proposed

## 5.0 COMMUNITY

### PROGRESS ON GOALS AND INITIATIVES

#### Goal 11: Support an equitable distribution of local and healthy foods by 2018

- Using funds received from the USDA Farmers Market Promotion Program, three farmers' markets received assistance to expand or add the capacity for Electronic Benefit Transfers.
- Land at the former Iroquois Homes site and one other local institution is being used for sustainable agriculture in partnership with Louisville Grows.

**Initiative Completed—Open three new farmers markets or local food retail outlets in underserved areas of the community**

##### BY THE NUMBERS

###### Number of new farmers markets and local food retail outlets

Cumulative Total from 2014-2015 — 5  
Target: 2025 — 3

##### BY THE NUMBERS

###### Expand the use of electronic benefit transfer (EBT) mobile readers to six additional farmers markets or local food retail outlets

###### Number of markets with EBT readers

Baseline: 2014 — 13  
Current: 2015—16  
Target: 2025 — 20

Three new [Fresh Stops](#) launched in 2015, bringing the total opened within the past two years to five. Thanks to [New Roots](#) for its leadership on this initiative.

#### Goal 12: Increase access to green space and recreational resources— Ongoing

##### BY THE NUMBERS

###### Provide expanded and equitable access to nature for children and families — **NEW!**

###### Number of participating youth

Baseline: 2014 — 650  
Current: 2015—700  
Target: 2018 — 800

Metro Parks added a new initiative in 2015 to account for existing work on providing children and families with easier access to nature. The initiative aims to increase the exposure of predominantly low-income and minority children to the outdoors to help improve educational attainment and health and wellness. As a first step, Metro Parks began drafting the West Louisville Outdoor Recreation Initiative Master Plan, which includes conceptual renderings for

the Shawnee Outdoor Learning Center. The initiative to add 10 Mayor's Miles locations is no longer being pursued due to lack of program fund-

###### Initiative Completed—Provide nature-based education for six schools

Using funding received in 2014, Metro Parks expanded its [Engaging Children Outdoors \(ECHO\) program](#) to six schools. Approximately 450 students

now have access to nature-based environmental education. Previously, these students had few opportunities for meaningful experiences in nature.

##### BY THE NUMBERS

###### Number of school children served

Baseline: 2014 — 343  
Current: 2015—450  
Target: 2015 — 400



## 5.0 COMMUNITY

### Goal 13: Incorporate sustainability into the Land Development Code and the Comprehensive Plan by 2018

The outdoor amenity requirement of the Land Development Code (LDC) was expanded in 2015 to include industrial developments. In addition, the infill regulations of the LDC were revised to facilitate easier implementation of infill development in all areas of Louisville Metro.

- Green project implementation continued in the SoBro Louisville neighborhood with the installation of a grant- and community-funded artistic bus shelter. The project goal was to enhance the bus riding experience, improve neighborhood connectivity and draw positive attention to this up-and-coming neighborhood. In addition, vacant tree wells were inventoried and 20 trees were planted in the vacant locations.



#### Initiative Completed—Identify standard sustainability elements to include in all small area, corridor and neighborhood plans

In 2015, the Office of Advanced Planning developed standard sustainability elements to be included in neighborhood plans. The [Highview Neighborhood Plan](#) was the first document to include these sustainability principles. The language will be reviewed for possible inclusion in the Comprehensive Plan.

### Goal 14: Maintain and expand a robust parks system – Ongoing

- With funding from the KY Heritage Land Conservation Fund and Wilderness Louisville, Inc., three parcels totaling 95 acres were added to Jefferson Memorial Forest. (JMF) Since the baseline year for this initiative (2013), 130 acres have been added to the Forest.
- Metro Parks also added 54 acres to the amount of land it actively manages. The agency planted 300 trees on this land, removed invasive plants from an 18-acre section and secured a \$5,000 LG&E grant for future tree plantings.

#### BY THE NUMBERS

##### Acquire 4,000 acres of park land and conservation easements

##### Amount of additional acreage in JMF

Cumulative Total from 2013-2015 — 95 acres  
Target: 2029 — 4,000 acres

##### Amount of additional acreage in Metro Parks (not including JMF) and conservation easements

Cumulative Total from 2013-2015 — 31 acres  
Target: 2020—2,969 acres

##### Increase the acreage of natural areas land under active management 25%

##### Acres of land under active management

Baseline: 2014 — 235 acres  
Current: 2015—289 acres  
Target: 294 acres

## 5.0 COMMUNITY

### Goal 15: Expand green infrastructure incentives citywide by 2018

The Office of Sustainability's [green infrastructure incentive program](#) awarded a total of \$30,000 in 2015. Through these incentives, privately-owned businesses and nonprofits constructed five rain gardens, one green roof, one underground water storage unit and one tract of pervious pavers.

#### BY THE NUMBERS

**Provide incentives to increase the amount of captured impervious area by 1 million square feet**

**Amount of captured impervious area funded by incentives**

Current: 2015—82,031 sqft

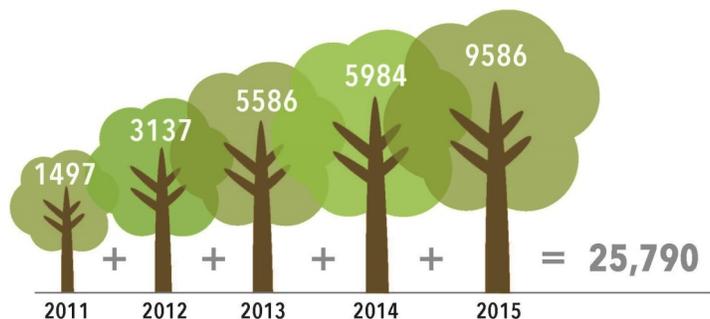
Target: 2018—1,000,000 sqft

### Goal 16: Increase the tree canopy to 45% coverage —Ongoing

*(Formerly—Establish a robust urban tree canopy by 2018)*

The [Urban Tree Canopy Assessment](#) was released in March 2015 and revealed that the city's overall canopy coverage is 37%. Without the parks system, Louisville's tree canopy coverage is 30%. Based on the finding of the Urban Tree Canopy Assessment, the Division of Community Forestry intends to develop a Community Forestry Management Plan that will serve as a roadmap for increasing tree canopy coverage citywide.

- In 2015, 9,586 trees were planted in Louisville, for a total of 25,790 trees since 2011. Tree planting efforts were led by Metro Parks, the Division of Community Forestry and many community partners.
- In July 2015, Louisville Metro Government formally established the Division of Community Forestry within the Office of Sustainability. The mission of the new division, which houses the city arborist and the community forestry supervisor, is to support and manage community forest infrastructure to promote a robust and healthy canopy for current and future generations.
- Recommended revisions to Chapter 10 of the LDC on the topic of tree canopy and landscaping requirements are under review by Metro Council in 2015. The proposed revisions would prohibit 100% tree canopy reductions for high-density/intensity developments in the Traditional Form Districts. Action is anticipated in 2016.
- [Brightside](#) and the [Partnership for a Green City](#) sponsored a Youth Summit focused on helping students develop action plans to help reduce the city's urban heat island. Tree plantings, green walls and other strategies were developed by students in grades five through twelve. The Knollenberg Foundation funded a grant for the best three project proposals. [Watch a video on the Summit.](#)
- A new initiative was added to Goal 16 to help educate citizens about the benefits of trees through community partnerships. The Division of Community Forestry has developed strong partnerships with citizens, nonprofits, neighborhood associations, Metro Council members and businesses to plant trees and educate them about the multiple ecosystem services provided by trees.



Note: Bare root whips are measured at 10% due to a low survival rate. Numbers may adjust up or down as we continue to account for plantings completed by partner agencies and establish a more formal methodology for calculating tree survival rates.



## 6.0 ENGAGEMENT

### 2015 Key Successes

- The U.S. Conference of Mayors presented Mayor Fischer with the Outstanding Achievement City Livability Award for the [Green Living Neighborhood Certification program](#).
- The second annual Louisville Sustainability Summit was attended by over 225 residents.
- The Arts and Culture Alliance, with many community partners including the Office of Sustainability, held YES! Fest – a Year of Environment and Sustainability. Over 100 organizations incorporated sustainability-themed messaging in arts and culture events throughout 2015 to actively engage audiences of all ages.
- The Shawnee Neighborhood became the first in Louisville to receive a Green Level Certification from Brightside’s Green Living Program.

### Goals and Initiatives

## ENGAGEMENT

### GOAL 17. Engage the community in sustainability practices and principles – Ongoing

Coordinate with academic institutions to support sustainability education and behavior change programs	Underway
Establish partnerships to provide sustainability education programs for the community, children and organizations	Underway
Provide regular community updates about progress on Louisville’s sustainability goals, via newsletter, social media and other electronic communication	Underway
Launch a community engagement process to develop a signature sustainability project	Planned
Offer sustainability-based community education programs and workshops	Planned

## PROGRESS ON GOALS AND INITIATIVES

### Goal 17: Engage the community in sustainability practices and principles – Ongoing

- Over 225 attendees participated in the second annual sustainability summit, hosted by the Office of Sustainability and the [Louisville Sustainability Council](#). The event focused on improving air quality in Louisville.
- A newly designed Sustain Louisville e-Newsletter was introduced with over 1600 subscribers and social media usage increased steadily.
- The city continued participation in the Partnership for a Green City (PGC). The PGC’s Urban Heat Island Committee, the Louisville Energy Alliance, the Kentucky Chapter of the US Green Building Council and Green Roofs for Healthy Cities hosted the Kentucky Green Roof & Wall Symposium. Approximately 130 people attended. In addition, the PGC purchased and distributed nine meteorological stations to K-12 schools. The stations will collect temperature data to establish a heat monitoring network in Louisville.
- Brightside expanded its One Bright City initiative and 2015 cleanliness monitoring revealed an average citywide score of 2.08/4, with 1 indicating “minimal or no litter.” Scores in the [Brightside Index](#) revealed a reduction in litter throughout the year. [An interactive map](#) was developed to visually display scores across the city and a Cleanliness Assessment App was created to help with data collection. The organization also launched the Litter is Lame campaign to help raise community awareness and motivate people not to litter.
- At least 12 neighborhoods, including more than 400 households, registered to participate in the first year of the [Green Living Neighborhood Certification Program](#), a competition-based rating program which educates residents on how to live more sustainably.
- Two [CycLOUvia](#) events were held in 2015 to help promote healthy lifestyles, active transportation and economic development. The events closed Frankfort Avenue and Bardstown Road to vehicles for an afternoon, which allowed citizens to ride their bikes, walk, skate and dance.

## 7.0 LOOKING AHEAD TO 2016 AND 2017

As we review the accomplishments since Sustain Louisville was published in 2013, it is clear that many citizens, businesses and organizations have invested time and funding to help create a healthier and more sustainable Louisville. The number of energy efficient buildings, solar panel installations, alternative fuel vehicles, bike lanes and off-road hike and bike paths and new tree plantings continue to increase. Sustain Louisville metrics show that progress is being made and that community involvement is growing. We look forward to continued growth and sustainable progress in the coming years.

In 2016 and 2017, comprehensive strategies will be developed to increase Louisville's tree canopy, adapt to urban heat and reduce the amount of materials going to the landfill. More financing options will become available for renewable energy and energy efficiency projects and the projects in Move Louisville will begin to make public transportation more accessible.

Community feedback and engagement are encouraged as we work toward achieving the goals in Sustain Louisville. Please contact the Office of Sustainability to get involved.

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