

# Energy Action Plan 2019 Update

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City Council Agenda Session  
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CITY OF  
**FAYETTEVILLE**  
**ARKANSAS**



# Energy Action Plan Goals

The following goals were determined through a process of peer city research, community input, City staff alignment, expert stakeholder guidance, and administrative review.

COMMUNITY GOALS

CITY GOALS



## CROSS-SECTOR:

- Reduce average housing and transportation costs to 45% of area median income
- Develop and expand Fayetteville's reputation as a hub for socially and economically responsible businesses, entrepreneurship, and green jobs
- Build local support for national carbon emissions reduction and carbon capture strategies



## BUILDINGS:

- Complete periodic feasibility analyses of building energy code updates
- Achieve 3% annual reduction in overall energy use in buildings
- Improve the health, distribution, coverage, and effectiveness of Fayetteville's urban forest



## ENERGY SUPPLY:

- Achieve 50% community-wide clean energy by 2030
- Achieve 100% community-wide clean energy by 2050



## TRANSPORTATION:

- Reduce per capita vehicle miles traveled to 2010 levels by 2030
- Achieve 25% bike/walk/transit mode share by 2030



## WASTE:

- Achieve 40% total waste diversion from the landfill by 2027



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## GOALS FOR CITY GOVERNMENT OPERATIONS:

- Achieve 40% reduction in GHG emissions by 2030, from baseline year of 2010
- Achieve 80% reduction in GHG emissions by 2050, from baseline year of 2010
- Achieve 100% clean energy by 2030
- Achieve 3% annual energy use reduction in City facilities

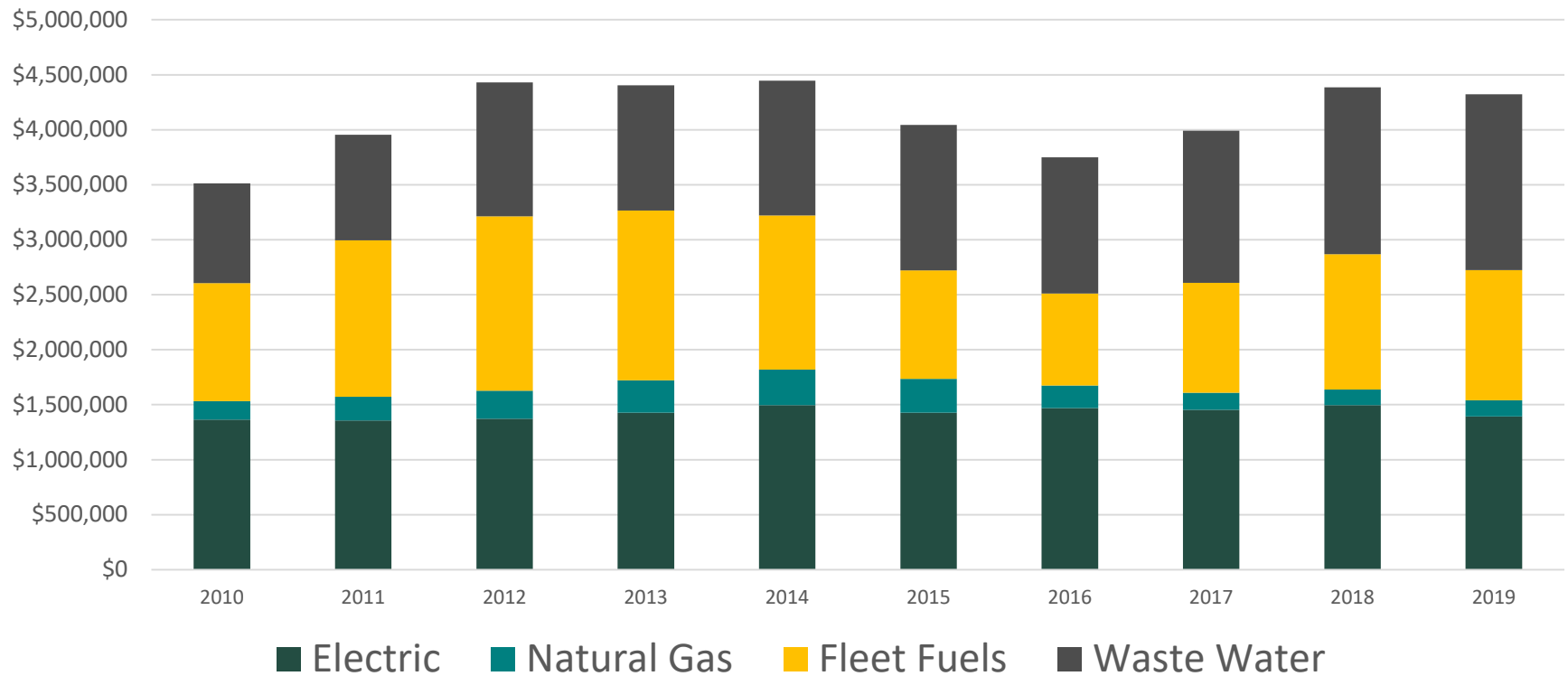
MORE INFORMATION AVAILABLE AT [WWW.FAYETTEVILLE-AR.GOV/ENERGYACTIONPLAN](http://WWW.FAYETTEVILLE-AR.GOV/ENERGYACTIONPLAN)



# Utility Cost Summary

- In 2019, City of Fayetteville spent \$4.3 million on electricity, natural gas and vehicle fuels
- Decrease of \$61,639 or 1% under 2018
- 2018 Began Capture of Previously Unreported Electricity Accounts – Street Lights & Lift Stations

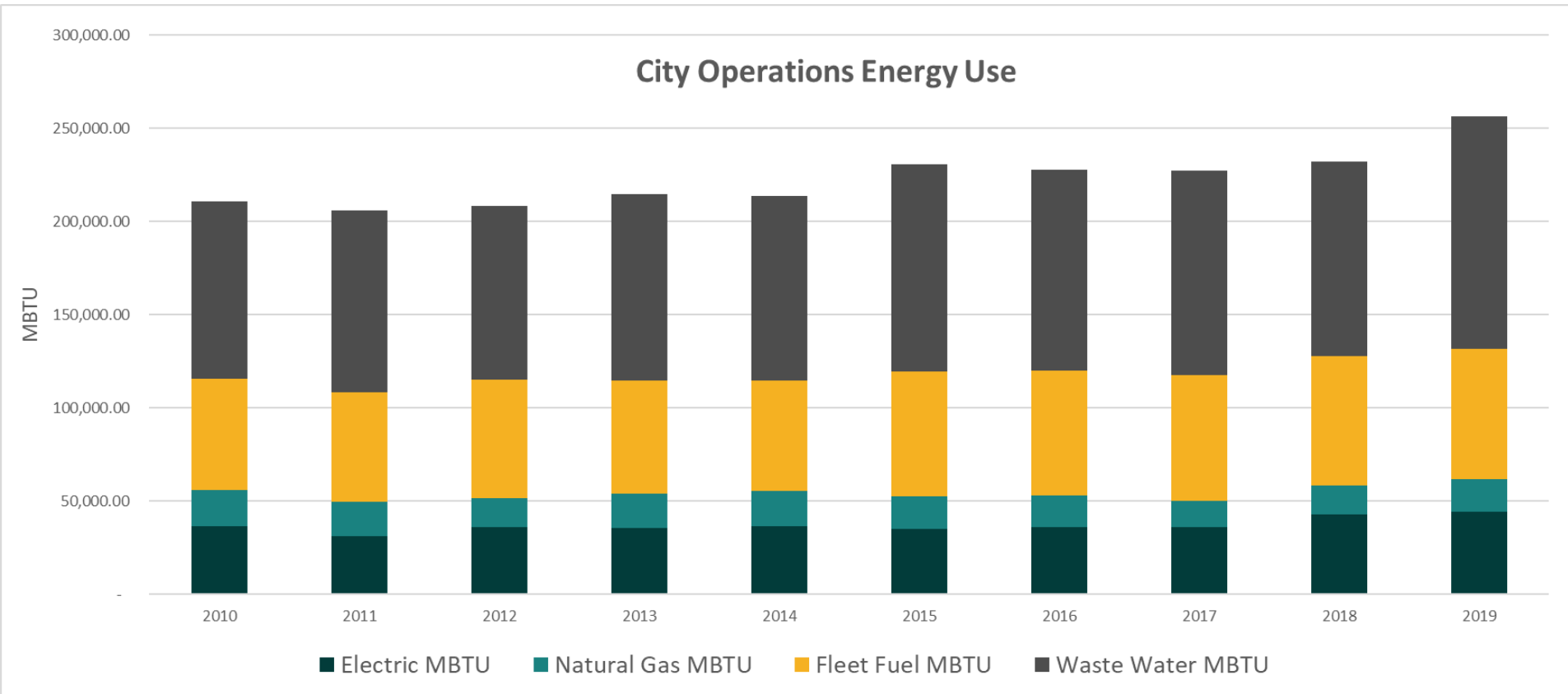
## Energy Cost





# Utility Usage Summary

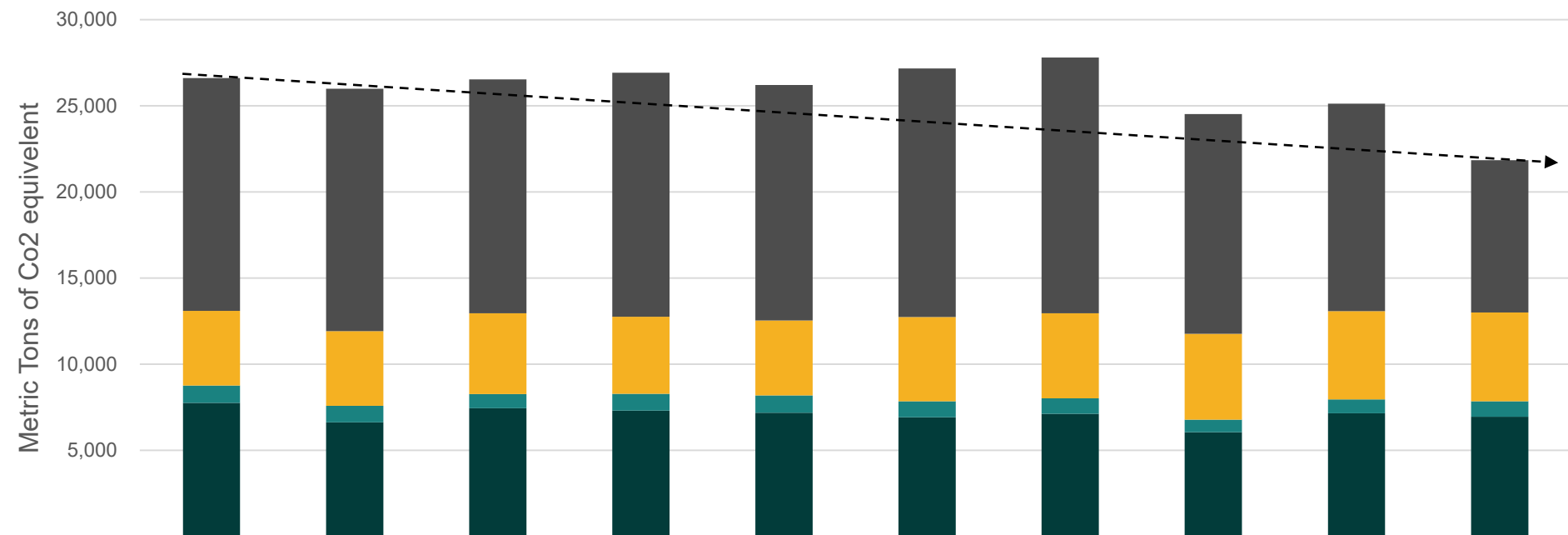
- In 2019, City of Fayetteville consumed **256,562** MBTU of energy
- The City saw **11% increase** in overall energy use compared to 2018
- Since 2010 City energy use **increased 22%**





# City Operation GHG Inventory

## City Operations: Annual GHG Emissions (MTCO2E)



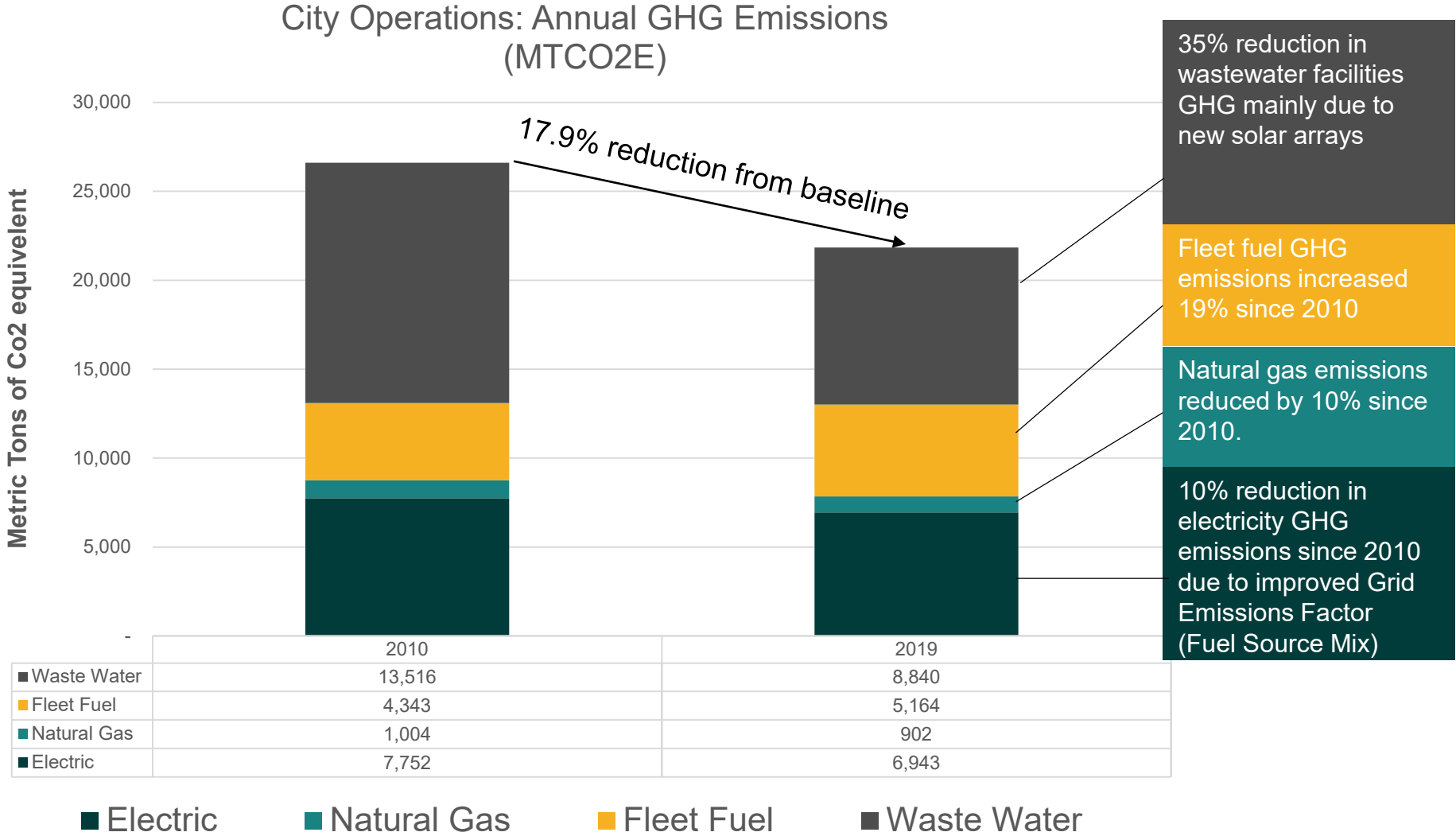
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Waste Water	13,516	14,071	13,575	14,170	13,675	14,426	14,848	12,760	12,054	8,840
Fleet Fuel	4,343	4,343	4,699	4,473	4,348	4,898	4,941	4,988	5,122	5,164
Natural Gas	1,004	959	819	985	1,011	927	888	726	811	902
Electric	7,752	6,624	7,445	7,300	7,180	6,921	7,125	6,050	7,142	6,943

Electric   Natural Gas   Fleet Fuel   Waste Water





# City Operation GHG Inventory





# Energy Action Plan Goals – City Government

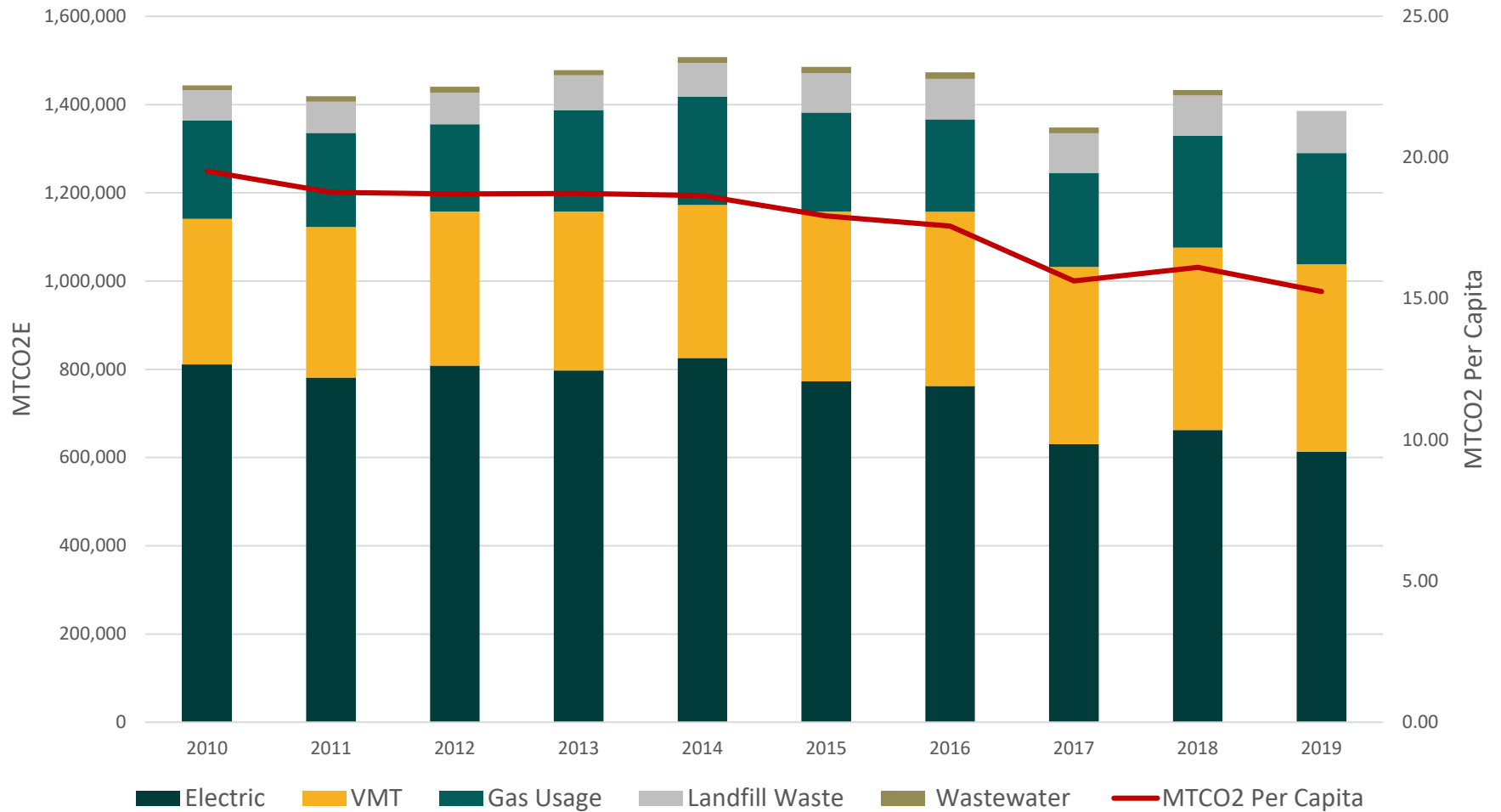
1. Achieve **40% reduction** in GHG emissions by 2030
  - In 10 years, the City has reduced emissions by 17.9%
  - Goal to reduce 22% percent in next 10 yrs
2. Achieve **100% clean energy** by 2030
  - We are at 72% clean energy
3. Achieve **3% annual energy use reduction** in City facilities
  - **15% increase** in 2019. Averaging 3% increase per year for City facilities





# Community GHG Inventory

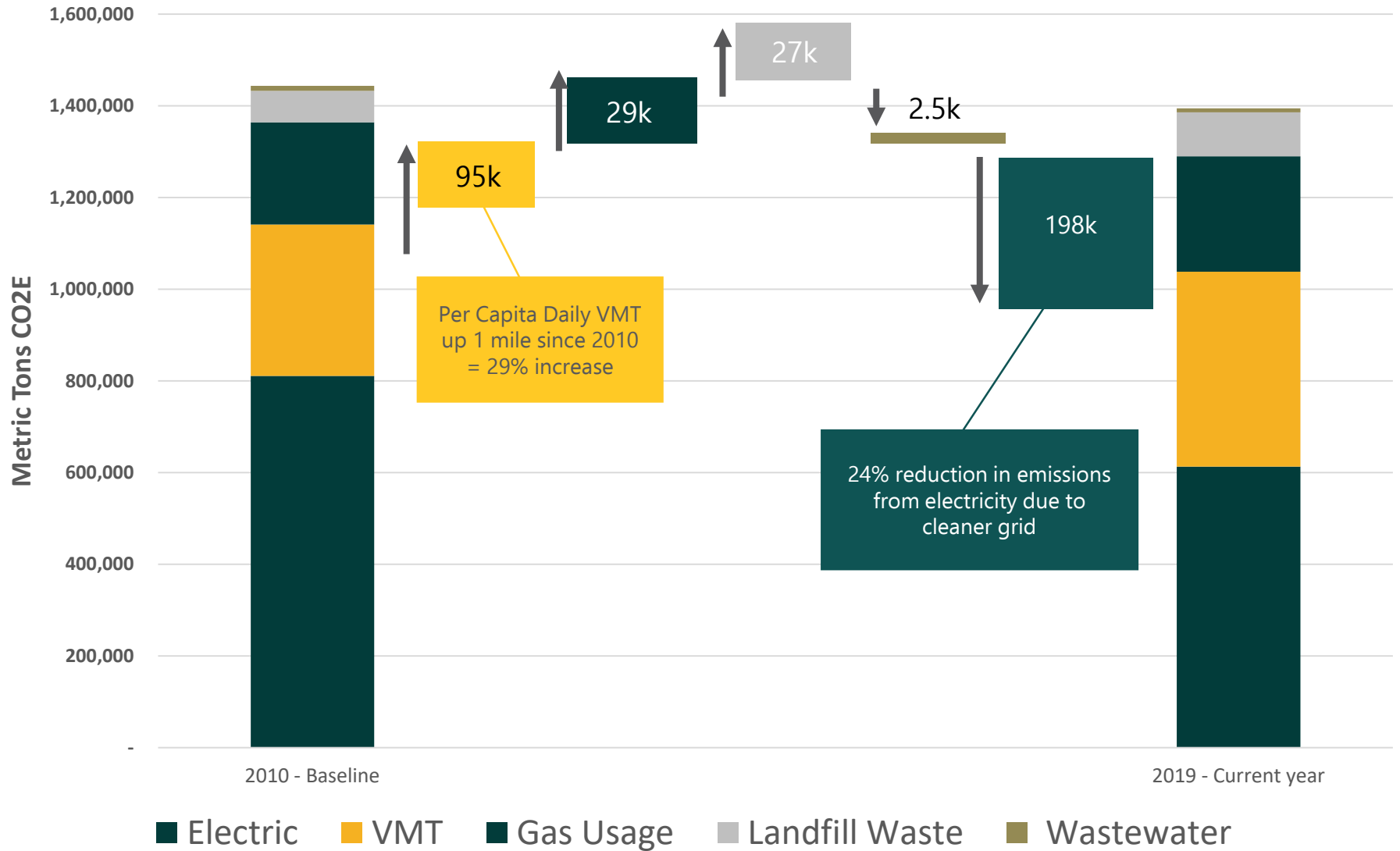
## 2010-2019 Community-wide Greenhouse Gas Inventory







# Community GHG Inventory





# Energy Action Plan Goals – Community Wide

## 1. Achieve **100% clean energy by 2050**

- Our electric grid is currently providing **27%** electricity from clean energy sources
- 73% to go in 30yrs

## 2. Achieve 80% reduction in GHG emissions by 2050

- Since 2010, Fayetteville has reduced emissions 3.4%
- 76.6% to go in 30yrs

## 3. Achieve **3% reduction annually** in building energy use

- **1% decrease from 2018** energy use
- Averaging yearly increase of 1%

## 4. By 2030, reduce per capita daily vehicle miles traveled to 24.9 miles

- In 2019, VMT/per capita was 25.8 miles per day
- Need additional **3.6% reduction (0.9 miles/capita)** over next 10 years.

## 5. Achieve **40%** total waste diversion from landfill by 2027

- **19%** diversion rate in 2019
- 21% to go in 7yrs





# Future Projects

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## 1. Retrofit Street Lights with LEDs

- Proactive replacement
- Payback period: 3-6 years



## 2. Achieve 100% Clean Energy - Solar

- 7,000 MTCO2E annual savings
- Energy Performance Savings Contract



## 3. WWTP Biosolids Study

- Sustainability & Energy Reduction



## 4. SWEPCo 810 Mw Wind Project in OK

- Regulatory approval in process
- Reduce community wide electricity emissions



# Sustainability Scorecard Updates

## 2019 SUSTAINABILITY REPORT CARD



This report card tracks the City of Fayetteville's sustainability performance across seven focus areas, defined by the Sustainable Tools for Assessing and Rating (STAR) Communities Guide. This report aims to bring greater transparency to City activities.

Fayetteville strives to be a sustainable city for all residents. We focus on building livable neighborhoods that meet residents' present needs without compromising future generations' ability to thrive. To capture a holistic view of Fayetteville's current and future sustainability, these indicators cover a range of economic, environmental, and social factors.

The 'Metrics' category tracks the same data points each year to show annual changes. In the 'Accomplishments' category, new successes are highlighted each year. The 'Goals' category captures both long-term objectives and specific goals for the following year.

BUILT ENVIRONMENT	METRICS	ACCOMPLISHMENTS	GOALS
	Average percent of income spent on transportation and housing <b>46%</b>	<b>2019 ACHIEVEMENT IN COMPREHENSIVE PLAN AWARD</b> by Arkansas Chapter of American Planning Association	Begin construction on <b>FIRST PHASE OF BOND PROJECTS</b>
	Issued <b>23 SOLAR DEVELOPMENT PERMITS</b>	<b>\$825,000</b> in bond money allocated to <b>TRAIL PROJECTS UNDER CONSTRUCTION</b>	Create <b>TRAILSIDE DEVELOPMENT PLAN</b>
	<b>4 VIOLATIONS</b> of EPA's clean water guidelines in City limits	Adopted Comprehensive <b>CITY PLAN 2040</b>	Develop <b>"GOOD NEIGHBOR BEST PRACTICES"</b> for infill construction projects
		Ranked <b>#15 IN NATION, BEST PLACES FOR BIKES</b> by People for Bikes	

CLIMATE & ENERGY	METRICS	ACCOMPLISHMENTS	GOALS
	<b>72% CLEAN ENERGY</b> for City government operations	Received US Conference of Mayors <b>MAYOR'S CLIMATE PROTECTION AWARD</b> for construction of <b>SOLAR ARRAYS</b>	Achieve <b>100% CLEAN ENERGY</b> for City government electricity supply
	Percentage of Fayetteville's electricity that comes from clean energy sources <b>27%</b>	<b>EXPANDED RECYCLING</b> to multi-family unit dwellings	Begin <b>RETROFITTING CITY STREET LIGHTS</b> to LEDs
	Greenhouse gas (GHG) emissions created, community-wide: <b>15.26 metric tons per capita</b>	Recognized on CDP's A list as <b>GLOBAL ENVIRONMENTAL LEADER</b>	Regulate <b>SINGLE-USE DISPOSABLE BAGS</b>
	Solid waste generated per person: <b>1,709 lbs.</b>	Gold Designation for <b>NATIONAL SOLSMART PROGRAM</b>	Expand <b>E-SCOOTER PROGRAM</b> to 500 e-scooters and continue to build safe infrastructure for riders
	<b>19%</b> of community's solid waste was diverted from landfills through reusing, recycling, composting, etc.	Launched <b>COMMERCIAL COMPOSTING PROGRAM</b>	
		<b>BANNED</b> to-go <b>POLYSTYRENE CONTAINERS</b>	

ECONOMY & JOBS	METRICS	ACCOMPLISHMENTS	GOALS
	<b>\$42,365</b> Median Household Income	Awarded <b>1ST PLACE IN EDUCATION/WORKFORCE DEVELOPMENT</b> by Arkansas Municipal League for: • Northwest Fab Lab • Northwest Regional Robotics Training Center • Workforce Education Textbook <i>The Calling</i>	Host <b>PAN-AMERICAN CYCLOCROSS CHAMPIONSHIPS</b>
	<b>2.5%</b> Unemployment rate	<b>PASSED \$226 MILLION</b> infrastructure bond package	Rezone sections of 71B and develop a <b>71B CORRIDOR TRANSIT PLAN</b>
	<b>1,404</b> New full time jobs created in 2019	Adopted <b>71B CORRIDOR PLAN</b> and negotiated transfer of 71B to City jurisdiction	Deliver <b>FAYETTEVILLE WORKFORCE DEVELOPMENT PLAN</b>
	<b>341</b> New businesses opened in 2019		

EDUCATION, ARTS & COMMUNITY	METRICS	ACCOMPLISHMENTS	GOALS
	<b>93%</b> Percentage of students who graduate high school within four years	Ranked <b>5TH: BEST PLACES TO LIVE</b> in the country by U.S. News & World Report	Begin improvements to <b>FAY JONES WOODS</b>
	<b>50%</b> Percentage of third-graders who meet or exceed reading proficiency standards	Began <b>\$50 million PUBLIC LIBRARY EXPANSION</b>	Complete construction of <b>70,000 sq-ft PUBLIC LIBRARY CAMPUS EXPANSION</b>
	<b>49%</b> Percentage of residents with a bachelor's degree or greater	<b>THEATRESQUARED RE-OPENED</b> in new location	Collaborate with new <b>N.W. ARKANSAS ARTS SERVICE ORGANIZATION</b> incubated at the Northwest Arkansas Council
		Named <b>ARKANSAS VOLUNTEER COMMUNITY OF THE YEAR</b> by Arkansas Municipal League	

EQUITY & EMPLOYMENT	METRICS	ACCOMPLISHMENTS	GOALS
	<b>62%</b> Percentage of households that meet or exceed the Living Wage Standard	City joined <b>CITIES FOR CITIZENSHIP</b> to increase citizenship among residents	Participate in <b>"I COUNT" CENSUS 2020 CAMPAIGN</b>
	<b>338</b> Residents assisted with taxi and transit vouchers through City's transportation programs	City amends ordinance to allow <b>NON-VOTING RESIDENTS TO SERVE ON CITY BOARDS AND COMMITTEES</b>	Expand trail system to within <b>ONE-HALF MILE</b> of all residents
		<b>COMMUNITY RESOURCES HEARTH PROGRAM</b> housed 45 adults & 36 children	Place <b>DIVERSE WORKFORCE HOUSING OPTIONS AND EMPLOYMENT OPPORTUNITIES</b> in growth nodes outlined in City Plan 2040
	Mapping and analysis of access and proximity to <b>COMMUNITY ASSETS</b> such as schools, clinics, grocery stores, etc.		Participate in <b>REGIONAL INITIATIVES ON AFFORDABLE HOUSING</b>

HEALTH & SAFETY	METRICS	ACCOMPLISHMENTS	GOALS
	<b>1.1</b> homicides per 100,000 residents	Expanded <b>ADA ACCESSIBILITY</b> at Guley Park, Bryce Davis Park, and Gregory Park	Expand <b>URBAN AGRICULTURE OPPORTUNITIES</b>
	<b>26%</b> of residents live in a defined food desert	<b>REDUCED CRIME BY 9%</b>	Increase and improve <b>ADA ACCESSIBILITY</b> of City parks and trails
	<b>14.4%</b> of residents experience food insecurity	Approved bonds to begin design of new <b>POLICE HEADQUARTERS AND TWO FIRE STATIONS</b>	Complete design of new <b>FIRE STATIONS &amp; POLICE HEADQUARTERS</b>
		Dedicated police officer to patrol trail system and add <b>SCHOOL RESOURCE OFFICER TO FAYETTEVILLE PUBLIC SCHOOLS</b>	

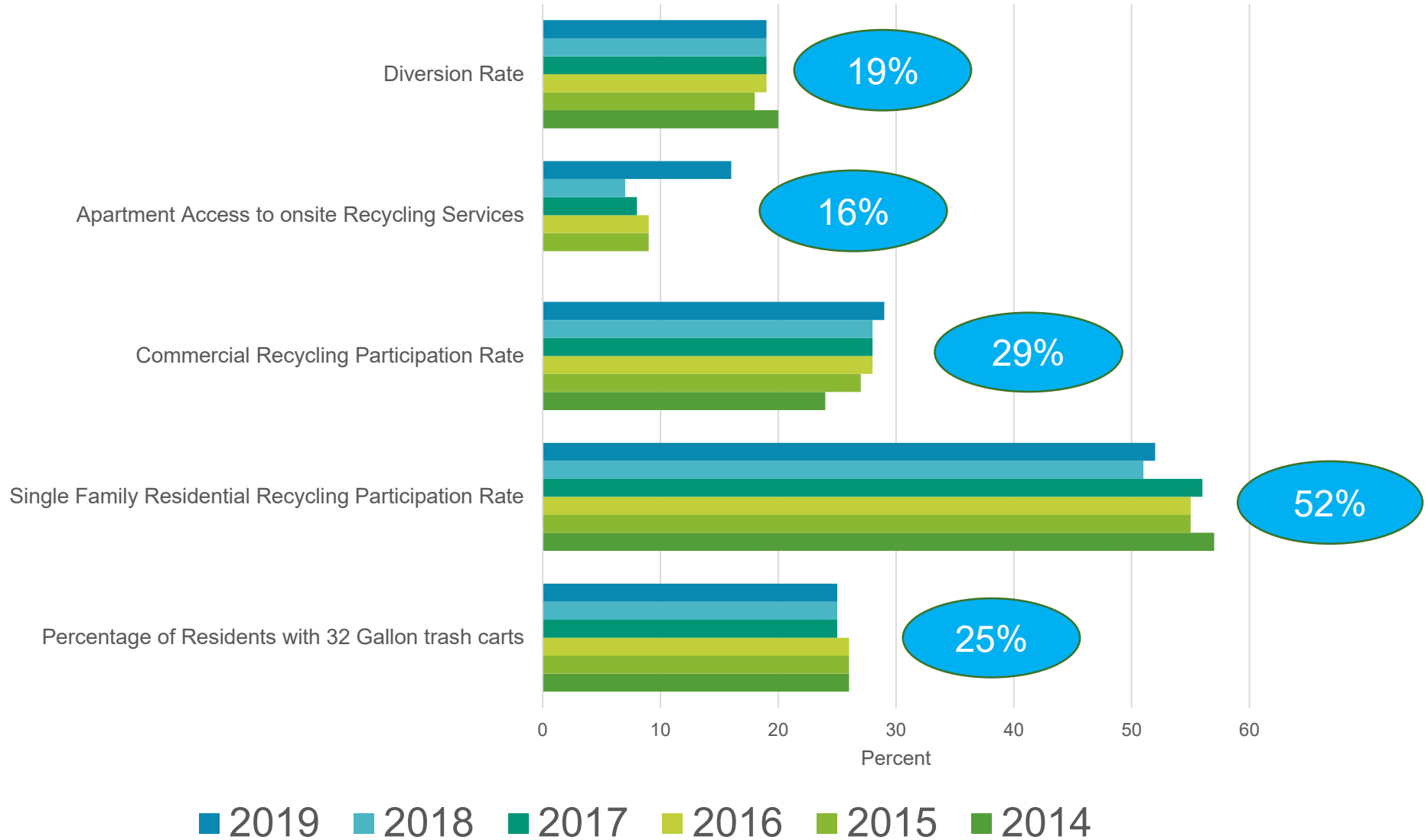
NATURAL SYSTEMS	METRICS	ACCOMPLISHMENTS	GOALS
	<b>20.9%</b> of City-owned land is classified as green infrastructure	<b>1.7 million bond dollars for DRAINAGE PROJECTS</b>	Continue stormwater maintenance projects to <b>REDUCE FLOODING &amp; EROSION AND PRESERVE QUALITY OF STREAMS</b>
	<b>1</b> acre of parkland cleared of invasive plants	<b>3 million bond dollars for projects at CITY PARKS</b>	Improve <b>URBAN FOREST AND HABITAT</b> through native plantings and invasive species removal
	<b>3,327</b> volunteer hours spent removing invasive plants	Awarded <b>WATER RESOURCES UTILITY OF THE FUTURE TODAY</b>	Develop new <b>PARKS MASTER PLAN</b>
	<b>5,816</b> volunteer hours spent cleaning up litter	<b>GAVE AWAY 1000 TREES</b>	

[www.Fayetteville-ar.gov/Sustainability](http://www.Fayetteville-ar.gov/Sustainability)

# Waste Diversion 2019 Report

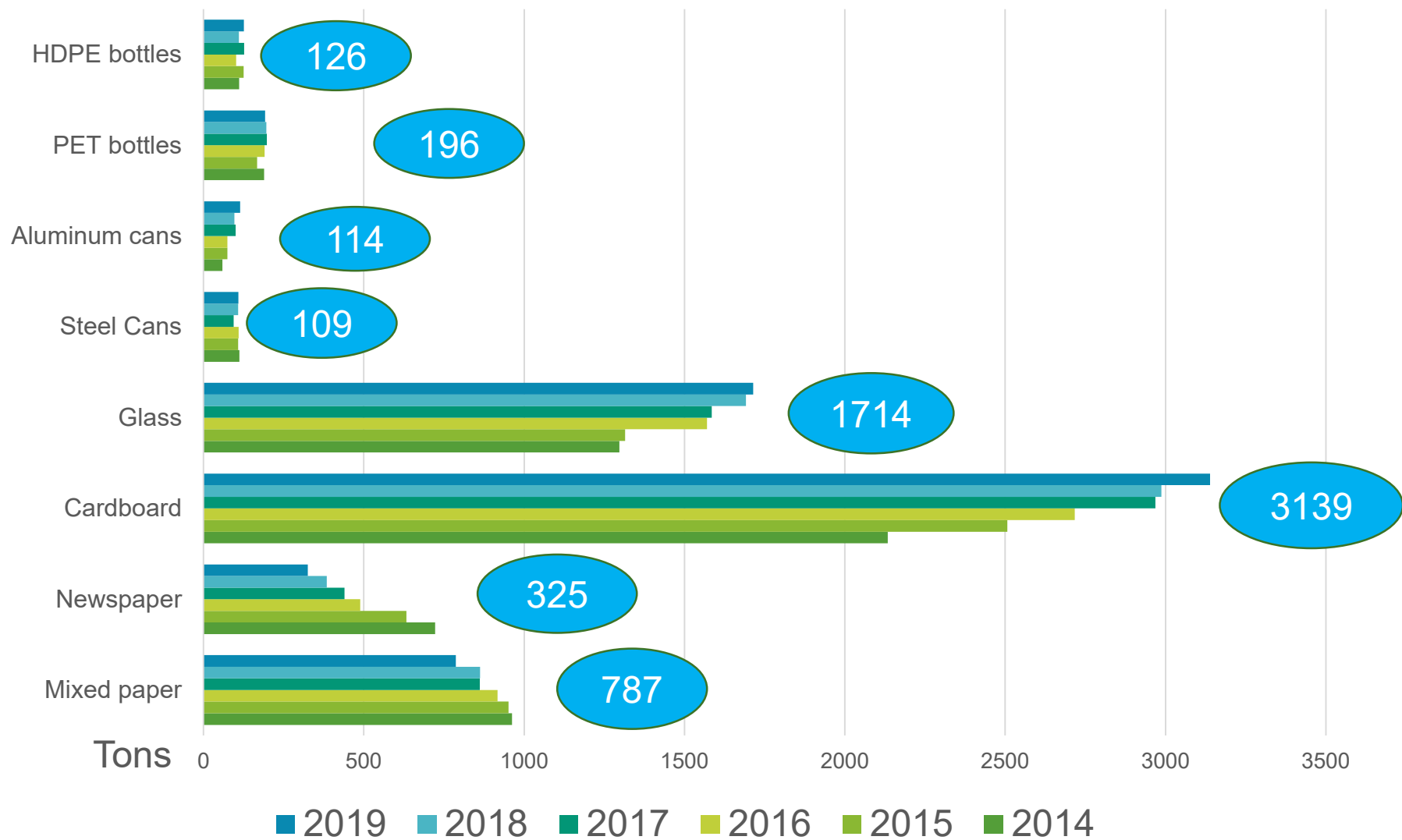


# RTC Activities Metrics



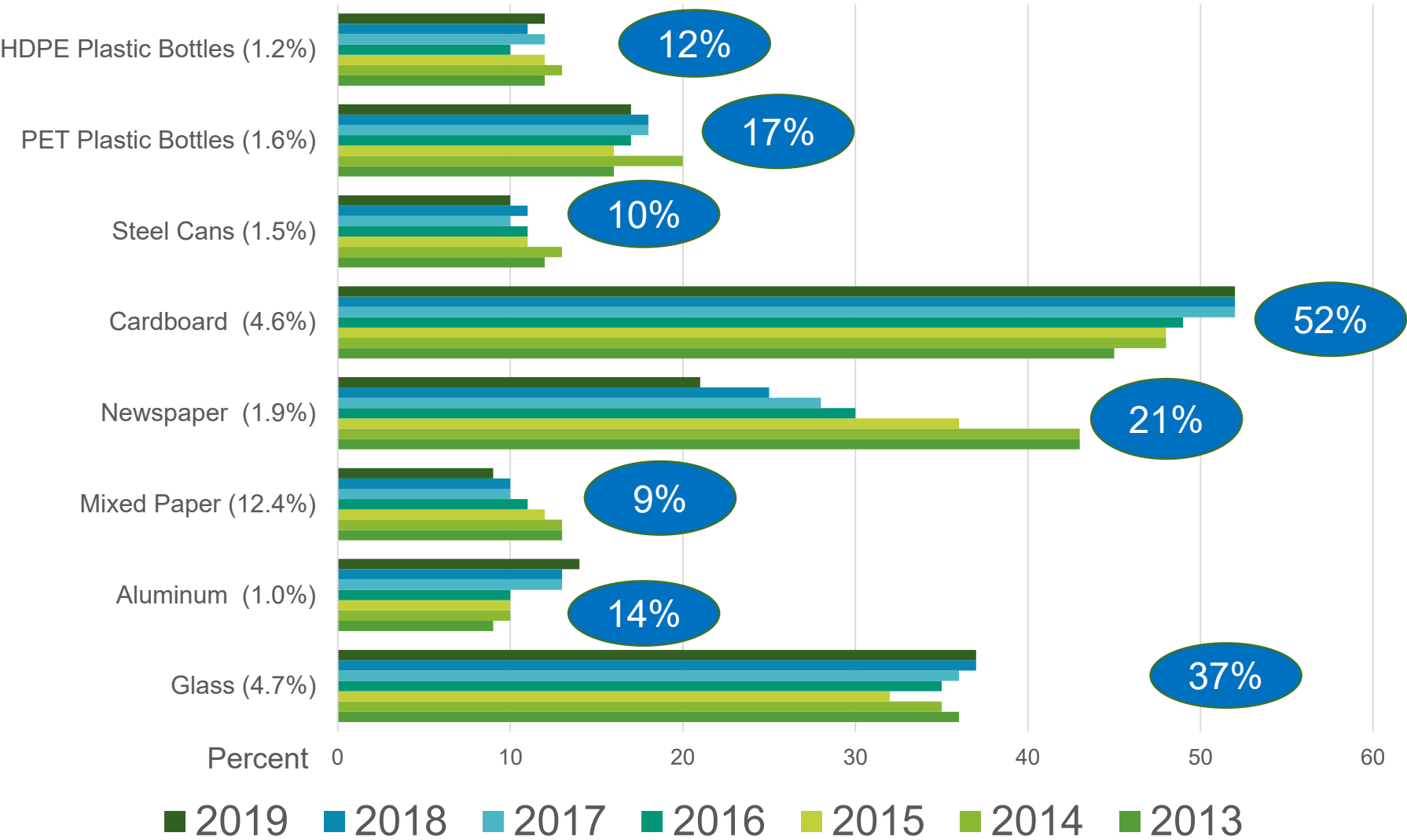


# Recycled Materials Trends





# Capture Rates





## Next Steps

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### **Construction & Demolition Recovery Program**

Look at RFP for **creation of a construction and demolition recovery program**.

### **Voluntary Organics Recovery Program**

Continue to **implement voluntary organics recovery program** focusing on large food waste generators and schools. Truck dedicated to organics recycling began service in December.

### **Outside Hauling of Organics**

Continue to work with outside haulers to **bring in organics from other larger generators** such as grocery stores and events.

### **Technical Assistance Program**

Continue to **implement the technical assistance program** to inform businesses, institutions, and multifamily complexes of the City's waste diversion commitment and help them prepare for new recycling initiatives.

### **Apartment Recycling Services**

Continue **expansion of apartment recycling services** for both large complexes and smaller complexes 24 units or less in size.



# COVID 19 Impacts & Activities

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## **Compost**

- Delivery Started April 13<sup>th</sup>
- 61 deliveries (11 low income)\
- Waiting list
- Very limited supply of compost
- Several rows finishing over the next month

## **Food Waste Collection**

- Restaurant closures have reduced food waste collection
- Additional food waste drop off at Happy Hollow Recycling Center

## **Recycling**

- Curbside program suspension of service on March 23<sup>rd</sup>
- New Recycling Drop-Off Locations
- Refunds to commercial customers
- Decrease in amount of recyclables collected
- Contamination

## **Trash Service & Volume**

- Commercial customer down
- Residential weight up

# Thank you!

Sustainability Department  
CITY OF FAYETTEVILLE



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