

SIMPLY SUSTAINABLE FRAMEWORK

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City of Denton

155,000

Estimated Population

5,000+

Businesses

2,300

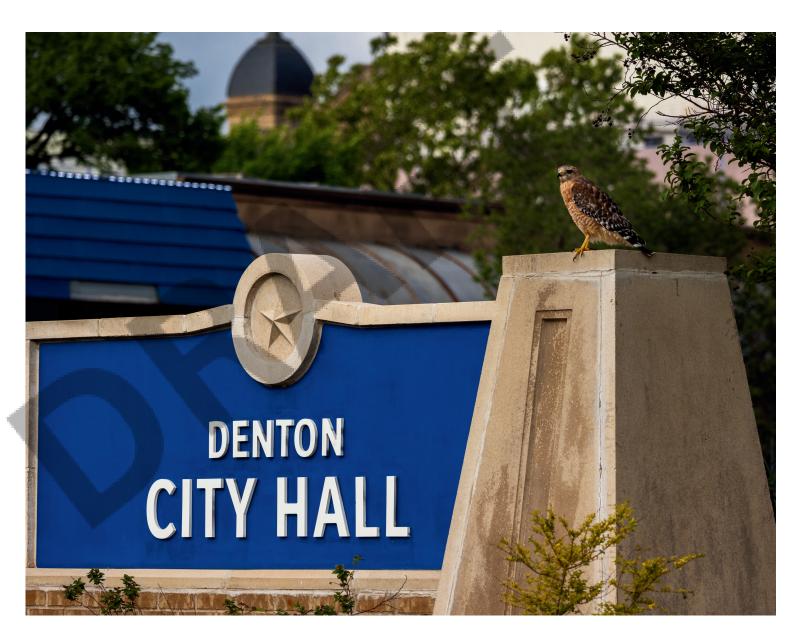
Full-Time/Part-Time Employees

204

City Buildings

3

Academic institutions



City of Denton Sustainability highlights

1998

EnergySave Program was created by Denton Municipal Electric providing rebates for DME customers that installed high-efficiency heating, ventilation, air conditioning (HVAC) systems 2005

Committee on the Environment is established by City Council

Solid Waste began capturing methane from the Landfill for energy generation

Water Conservation & Drought Contingency Plan Adopted

Solid Waste began capturing methane from the Landfill for energy generation

2006

Summer Water Ordinance is implemented restricting the use
of irrigation from 10 a.m. - 6 p.m.

2009

GreenSense Program replaced the EnergySave program provide funding for energy efficiency & additionally encouraged rooftop solar. Denton Municipal Electric (DME) used Power Purchase Agreements to include wind in the power supply to local customers.

2019

Water creates the

Drought Contingency

Framework

Plan

Simply Sustainable Plan is

updated to Sustainability

1990's

First Steps

Denton Water Utilities

from diverted sludge

began to make Dyno Dirt

2018

2017

The Renewable Resource
Plan expands DME
portfolio goals. The plan is
developed to meet the goal
of providing its electric
customers with 100%
renewable energy in 2022.

Renewable Denton Plan

was reviewed, which was responsible for taking DME's energy portfolio from 40% to 70%

The **Simply Sustainable Plan** is updated

2016

The 2015 Mobility plan is adopted establishing a holistic, multimodal transportation plan that serves as a combined thoroughfare, bicycle, and pedestrian master plan for the City of Denton.

2015

The Denton 2030 Plan is adopted designed to guide the future growth & development of the City of Denton.

Adoption of Simply

2012

Sustainable Plan laying out steps for a more sustainable Denton, this plan originally included over 30 strategies across the eight focus areas

2020

Mobility Plan Update adopted SolSmart Silver desingee

Sustainability Advisory Framework
Committee is established by City
Council

Urban Forest Master Plan is adopted identifying important tree canopy resources & include specific strategies to protect & develop a more robust tree canopy 2021

Sustainability Framework Fund

was created committing revenue for sustainability initiatives

The Comprehensive Solid Waste Management Strategy (CSWMS) is adopted

2022

Denton 2040 Comprehensive Plan is adopted

2022 Mobility Plan is adopted

The Parks, Recreation, and Trails System Master Plan is adopted e assessing future needs concerning parks, recreation, open space, and greenways.

City adopted Ordinance, which established a **Science-based Target** to reach net-zero carbon emissions by 2050 through the creation of a Climate Action Plan.

2023

Adoption of the **Commercial Diversion Article** providing diversion opportunities & goal setting that include 30% overall diversion of waste by 2030, 40% by 2040, & 75% by 2075.

Solid Waste began working on a contract to improve the production and capture of methane gas which will be processed into renewable natural gas 2024

Climate Action Plan Adopted

highlights 3 primary goals and 16 actions to progress towards net zero by 2050.

Design Downtown Plan adopted

as a strategic blueprint for the next 20-years aimed at enhancing the vitality and character of Downtown Denton. This plan introduces "Denton Chill Streets" and includes a bike and pedestrian mobility focus

Introduction

Overview of Denton and the DFW Metroplex

The City of Denton, located in North Texas, is the 20th largest city in the state and is experiencing annual growth of 3.5%. Denton is part of the greater Dallas-Fort Worth (DFW) metroplex, the largest metropolitan statistical area in Texas and the fourth-largest in the United States. The DFW area is home to the DFW International Airport, the third busiest airport in the U.S., offering Denton proximity to a major travel hub. Denton's current estimated population exceeds 155,000.

The population of the DFW metroplex is projected to increase by 67% between 2020 and 2050, with employment expected to grow by 264% during the same period. Housing demand has also shifted upward, with a previously anticipated growth of 3.19% now realistically trending toward 4.4% to meet goals for single-family and multifamily units. This projected growth has prompted North Texas municipalities to plan for rapid expansion proactively. Existing infrastructure will need to be consistently addressed as population growth adds stress, with indicators such as traffic congestion, housing availability, and resource consumption (e.g., water, energy, landfill space) requiring close monitoring.

Denton as a College Town and Cultural Hub

Denton is known for its thriving arts, entertainment, and music scene, hosting annual community events and, more recently, establishing itself as the Halloween Capital of Texas. These events attract visitors from across and beyond the metroplex.

The city is home to two major universities—the University of North Texas and Texas Woman's University—as well as a satellite campus of North Central Texas College. These institutions had a combined enrollment of over 60,000 students as of 2023, with enrollment expected to increase by 13% over the next four years.

Denton was named one of the 10 best college towns in the nation and has a high percentage (52%) of renter-occupied units, largely due to its student population. This results in a higher turnover rate of residents, creating a narrow window to perform outreach and inform new residents about conservation and sustainability practices.

Employment and Commuter Information

The City of Denton employs over 2,300 full-time/part-time staff and is home to more than 5,000 businesses, including major employers such as the University of North Texas, Peterbilt, Texas Health Presbyterian Hospital, and Texas Woman's University. Denton also serves as a destination for commuters who work in the city but live elsewhere. Outreach to these commuters is essential, as they contribute to resource consumption and community-wide greenhouse gas emissions, even though they reside outside city limits.

Sustainability and Resiliency

Texas ranks highest among states most impacted by natural disasters. North Texas frequently experiences droughts, freezes, flooding, and severe storms. Recent events like the COVID-19 pandemic and Winter Storm Uri in 2021 have highlighted the need for resilient infrastructure and proactive planning. According to the National Resilience Guidance (NRG), a resilient community can prepare for threats, adapt to changing conditions, and recover rapidly from disruptions. Denton is working to ensure its infrastructure and operations are prepared for the stressors of a changing climate and growing population.

The LEED for Cities and Communities program defines sustainability as the balance of social, economic, and environmental performance across areas such as natural systems, energy, water, waste, transportation, and quality of life. Sustainability also includes infrastructure resilience to stressors like climate change and population growth.

The City of Denton has a longstanding commitment to sustainability, demonstrated through numerous programs and initiatives aimed at environmental improvement, community support, and the development of replicable programs for other cities. The Simply Sustainable Plan, created in 2012, outlined strategies to balance environmental protection with city growth while using resources in fiscally and socially responsible ways.

Building on this foundation, the Sustainability Framework was developed to continue guiding municipal planning, ensuring that Denton prioritizes sustainability while adapting to new challenges and opportunities. This living document works in conjunction with other adopted plans, including the:

- Urban Forest Master Plan (2020)
- Denton 2040 Plan (2022)
- Mobility Plan (2022)
- Parks and Trails Master Plan (2022)
- Comprehensive Solid Waste Management Strategy (2022)
- Water Conservation and Drought Contingency Plan (2024)
- Climate Action Plan (2024)

With the recent adoption of the Climate Action Plan (CAP) in 2024, the CAP formalizes the City of Denton's net-zero goal to achieve net-zero greenhouse gas emissions by 2050. The CAP is led by three primary goals and sixteen actions to progress towards those goals. Municipal utilities owned and operated by the City, such as solid waste and recycling, water and wastewater, and electric utility services, provide the city with more direct control of operations and the ability to adjust efforts to meet this net-zero goal. One way that the city is headed to this goal is through leveraging its power purchase agreements to provide 100% renewable energy to Denton Municipal Electric (DME) customers. In 2018, the city adopted the Renewable Resources Plan to achieve 100% renewable energy. DME met this goal by 2021, ensuring that all annual energy consumption is offset by renewable sources, backed entirely by wind and solar energy. Denton Water Utilities (DWU) recently implemented its Water Conservation & Drought Contingency Plan, reducing water loss and increasing water conservation, and reducing its energy consumption.

Solid Waste & Recycling has begun working on contracts to capture the methane from the Landfill to turn it into renewable natural gas. The City of Denton will continue to evaluate and identify opportunities to be able to achieve the overarching net-zero goal set. The City of Denton will also continue to engage the community—including residents, businesses, institutions, and employees—in sustainable practices and behavior change. Future planning will integrate both existing and new strategies to support a growing, resilient, and sustainable city.

This Sustainability Framework update will have two main goals that guide the document, as seen in the following page with strategies broken out by goal.

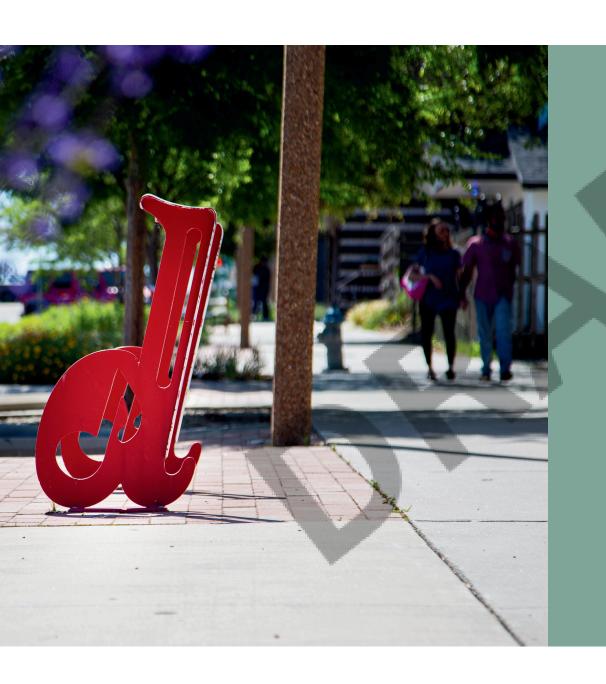


Vision

The City of Denton is a sustainable community that will engage our employees, businesses, institutions, organizations, and citizens in more sustainable practices. We will work in a leadership role to improve our environment and utilize our resources in ways that are fiscally and socially responsible. We do all of this to protect and restore our environment, create economic value, and support and strengthen our community.

<u>Guiding Principles</u>

- Involve the community in the implementation of the Framework.
- Develop partnerships that encourage collaboration on sustainability issues.
- Promote energy management policies and practices within municipal operations and throughout the community that are efficient and fiscally responsible while reducing emissions.
- Support transportation strategies that reduce air pollution and increase awareness of alternative transportation choices.
- Support waste management strategies, including diversion, reuse, recycling, repair, and renewable energy options.
- Support green building and sustainable site management within the Denton community through policy implementation, education, and incentives.
- Maintain a diversified power supply portfolio while establishing aggressive energy efficiency and energy conservation programs.
- Commit to the use and purchase of environmentally and socially responsible materials and products.
- Provide high quality drinking water, wastewater treatment, and watershed management in ways that are environmentally and economically sustainable for current and future customers.
- Conduct all of the activities above with a focus on inclusiveness, equity, and social responsibility.



Reduce the environmental footprint of municipal operations, assets, and facilities. Evaluate and improve City facilities to ensure they are resilient to hazards and vulnerabilities and can be a resource to the public.

Goal 2

Reduce the environmental footprint of municipal operations, assets, and facilities. Evaluate and improve City facilities to ensure they are resilient to hazards and vulnerabilities and can be a resource to the public.



Reduce the environmental footprint of municipal operations, assets, and facilities. Evaluate and improve City facilities to ensure they are resilient to hazards and vulnerabilities and can be a resource to the public.

FOCUS AREA		
ENERGY	o Continue to provide sufficient 100% renewable energy to DME customers. o Track and reduce municipal government energy consumption through demand reduction in both new construction and building retrofits. o Review Facilities Management policies and best practices to ensure they are in line with resource efficiency goals o Enhance energy efficiency standards for new construction o Investigate SolarApp+ to expedite the permitting process for code-compliant residential rooftop photovoltaic installations o Explore alternative incentives such as property tax exemptions for residents who install renewable energy systems and battery storage at their primary residence o Update and implement the City resource conservation policy o Evaluate the inclusion of on-site renewable energy systems for new and appropriate existing facilities	
WATER/WASTE WATER	o Track and reduce municipal government water consumption through efficient fixtures, smart controls, and best practices o Identify new areas to extend reclaimed water lines to provide access to new city users o Modify City code to require small and large development projects to connect to the reclaimed water line where available o Investigate Direct Potable Reuse, Indirect Potable Reuse, and Reuse Aquifer Storage Recovery (AS) o Maximize use of site-produced Renewable Natural Gas (RNG) o Maintain Integrated Stormwater Management (ISWM) Silver Level o Update and implement the resource conservation policy o Explore rainwater capture and greywater reuse at City facilities	
MATERIALS MANAGEMENT	o Complete the Landfill Gas to Energy (LFGE), which will allow the Landfill to harness methane to produce Renewable Natural Gas (RNG) o Expand food waste and organics collection programs to schools and universities o Maximize diversion opportunities at City Facilities o Update and implement the resource conservation policy	

Reduce the environmental footprint of municipal operations, assets, and facilities. Evaluate and improve City facilities to ensure they are resilient to hazards and vulnerabilities and can be a resource to the public.

FOCUS AREA		
AIR QUALITY	o Replace fossil fuel-powered equipment with electric options where feasible within municipal operations and facilities. o Create a dashboard and ensure Denton air quality monitor data is readily available to the public o Review City policies and alternative employee work schedules that can reduce the City of Denton's emission levels during ozone season o Participate in the North Central Texas Council of Governments Air Quality Programs o Evaluate and enforce air quality policies for City fleet and equipment (anti-idling and ozone action day restrictions)	
TRANSPORTATION	o Reduce fossil fuel dependency in municipal fleet and operations, where possible, and opt for alternative fuel vehicles where feasible (Dependent on market availability and vehicle allocation) o Update Clean Fleet policy o Partner with Economic Development to seek new businesses and work with existing that will install alternative fueling stations o Identify and reduce barriers for private businesses to be able to build EV charging stations within the City	
LAND USE	o Encourage redevelopment of infill areas by reducing barriers in the Denton Development Code o Explore reductions/exemptions on impact fees. o Assess barriers to housing in the Downtown core, such as multifamily and townhome development o Complete the Citywide Parking Study to explore opportunities to reduce parking minimums o Adopt the most up-to-date building codes and evaluate current rating systems (i.e. EnergyStar, LEED, etc.) o Conduct a tree canopy assessment to inform revision of the Urban Forest Master plan to set attainable tree canopy goals or identify with Parks & Rec green space where invasive species can be removed and replaced with native grasses that effectively sequester carbon o Continue to pursue Bee City USA, Monarch City USA, Mayor's Monarch Pledge, and Bird City Certification Programs provide opportunities to build awareness of the benefits of pollinators, encourage native landscaping, and preservation of natural spaces.	

Key performance indicators

Key Performance Indicators	Targets
Reduction system water loss	50 percent reduction in system water loss by 2050
Quantity of potable water used for City facilities	Decrease the quantity of potable water used for City facilities
Quantity of reclaimed water to potable used for irrigation at City facilities	Increase the quantity of reclaimed water to potable used for irrigation at City facilities
Quantity of reclaimed water to potable used at the bulk fill station by City accounts	Increase the quantity of reclaimed water to potable used at the bulk fill station by City accounts
Total municipal government energy consumption	5 percent reduction in total municipal government energy consumption
GHG Emissions – Municipal Government Operations (Metric Tons of Carbon Dioxide Equivalent)	Net-zero by 2050
GHG Emissions from Municipal Fleet	25 percent reduction by 2050
Annual Municipal Fleet Fuel Consumption	Reduce use of fossil fuels as a percentage of total fuel consumption
Number of Vehicles using Alternative Fuels (Hybrids, etc.) in Municipal Vehicle Fleet	Increase the number of Vehicles using Alternative Fuels within the Municipal Fleet
Number of fossil fuel miles traveled within Municipal Fleet	Reduce the number of fossil fuel miles traveled
Number of electric miles traveled within Municipal Fleet	Increase the number of electric miles traveled
Percentage of new light-duty vehicle purchases to be electric	30 percent by 2030
Report City of Denton Air Quality monitor data monthly	Yes or no
Net tons of material recycled at City Facilities	Increase net tons of material recycled at City Facilities



FOCUS AREA		
ENERGY	o Support energy efficiency and building envelope improvement in existing residential structures through rebates, audits, workshops, resources, and other tools such as weatherization kits o Track distribution of rebates, audits, and weatherization kits within the community to be able to quantify energy consumption and reduction o Attend community events to provide information to residents on best practices and provide tools to reduce energy consumption through weatherization, unplugging devices, installing Energy Star certified appliances, and local/federal energy efficiency incentives	
WATER/WASTE WATER	o Provide water audits, irrigation evaluations, and other water conservation incentives o Increase the number of conservation workshops/classes, i.e., rain barrel, DIY irrigation tune-ups, and low water use landscaping o Attend community events to provide information to residents on best practices and provide resources to reduce water consumption through native planting, xeriscaping and irrigation type and scheduling	
MATERIALS MANAGEMENT	o Provide recycling audits for Solid Waste and Recycling customers to encourage proper disposal o Host more Batteries, Oil, Paints, and Antifreeze (BOPA) events in collaboration with community organizations, Homeowners Associations (HOAs) o Partner with nonprofits, vendors, or organizations to accept material considered non-programmatic o Create a map as an additional resource for local drop-off locations to divert material o Identify and pilot additional diversion opportunities at university move-outs o Attend community events to share information about programmatic material, contaminants, and other diversion opportunities such as Home Chemical Collection, yard waste program, composting at home, and donating locally	

FOCUS AREA		
AIR QUALITY	o Intertwine air quality programming into workshops, classes, and events o Provide resources for residents to stay informed on the Air Quality Forecast o Incentivize residents' use of electric-powered lawn equipment o Evaluate opportunities to incentivize commercial electric-powered lawn equipment o Provide an interactive air quality dashboard with guidance on utilization	
TRANSPORTATION	o Offer alternative transportation education, and familiarize residents understanding of how to get around Denton using public transit, biking, or walking o Track distribution of EV and Ebike rebates within the community o Partner with Denton Independent School District (DISD) to support Safe Routes to Schools o Provide resources to encourage the safe use of active transportation o Track public transit ridership within the City of Denton around events and on off-peak times	
LAND USE	o Provide outreach education through workshops, the Emily Fowler Seed Library, and other outlets to be able to inform residents about native wildlife, invasive species, and pollinator gardens o Establish a program to continue to encourage backyard and community gardening within City limits such as providing tours of community gardens o Equip residents with best practices for tree care, and look at opportunities to register their trees and new plantings o Launch a public facing dashboard showing the tree canopy of Denton o Work toward National Wildlife Federation's Community Wildlife Habitat Certification	

INCENTIVES

Key performance indicators

Key Performance Indicators	Annual Targets
Percentage of funding depleted for Energy Efficiency rebates	100 percent of funding depleted for Energy Efficiency rebates
Percentage of funding depleted for Water rebates	100 percent of funding depleted for Water rebates
Percentage of funding depleted for EV/E-Bike rebates	100 percent of funding depleted for EV/E-Bike rebates
Percentage of funding depleted for Tree Rebates	100 percent of funding depleted for Tree Rebates

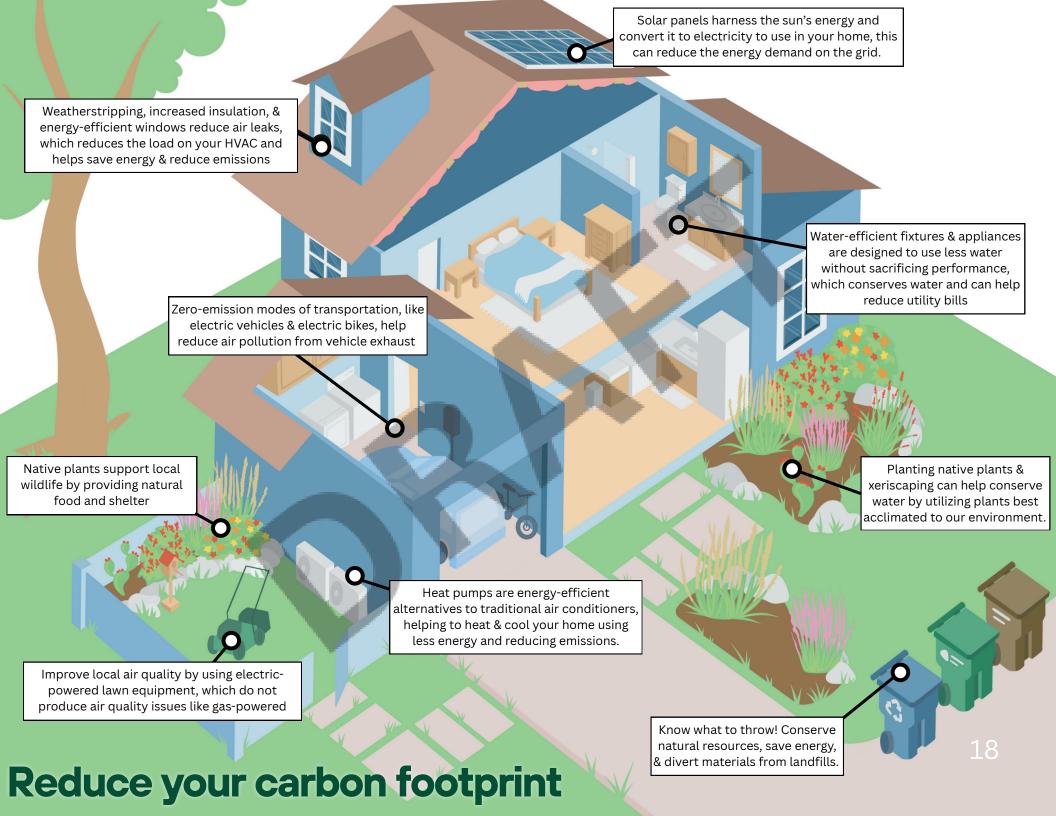
OUTREACH & EDUCATION

Key Performance Indicators	Annual Target (FY 23-24 baseline)
Number of Participants in Water Outreach Programs (Audits and Classes)	5 percent increase of the number of participants engaged in water outreach programs
Number of Participants in Energy Outreach Programs (Audits and Classes)	5 percent increase in the number of participants engaged in energy outreach programs
Number of Participants in Materials Management Outreach Programs	5 percent increase in the number of participants engaged in Materials Management programs
Number of Participants in Air Quality Outreach Programs	5 percent increase of the number of participants engaged in Air Quality programs
Number of Participants in Alternative Transportation Outreach Programs	5 percent increase of the number of participants engaged in alternative transportation outreach programs
Number of Participants in Local Food Programs	5 percent increase of the number of participants engaged in local food programs
Number of Schools registered in the Denton Sustainable Schools Program	Increase the number of Schools registered in the Denton Sustainable Schools Program

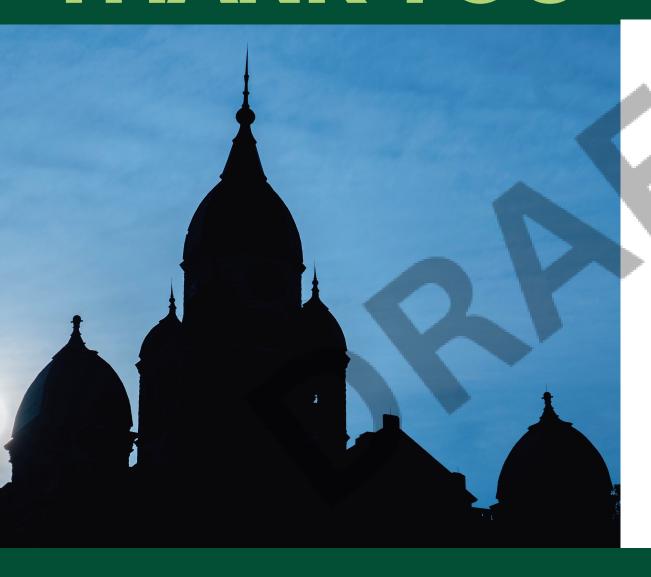
Key performance indicators

ADDITIONAL COMMUNITY MEASURES

Key Performance Indicators	Targets
Reduction in summer water usage	Decrease water usage June 1 - September 30 (FY 23-24 baseline)
Percentage of reclaimed water to potable used by commercial businesses	Percentage of reclaimed water to potable used by commercial businesses
Quantity of reclaimed water used at the bulk fill station by commercial accounts	Increase the quantity of reclaimed water used at the bulk fill station by commercial accounts
Track Public Transit Ridership around Downtown events and during off-peak times	Yes or no
GHG Emissions – Community-wide per capita (Metric Tons of Carbon Dioxide Equivalent)	Reduce GHG emissions
Quantity of yard waste collected annually	Increase the quantity of yard waste collected annually
Quantity of Dyno Products purchased annually	Increase the quantity of Dyno Products purchased annually
Total Number of first-time users of Home Chemical Collection (HCC)	Increase the number of first-time users of Home Chemical Collection (HCC)
Total pounds of Household Hazardous Waste collected by Home Chemical Collection (HCC)	Decrease the pounds of Household Hazardous Waste collected by Home Chemical Collection from repeat customers
Number of facilitated take-back events for non-programmatic items	Increase the number of facilitated take-back events for non-programmatic items, a minimum of 1 quarterly
Number of certified wildlife habitats	Increase the number of certified wildlife habitats
Track the Number of Trees planted residentially	Yes or no
Track the Number of Trees planted at commercial and industrial development	Yes or no



THANK YOU



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