



# **Municipal Climate Action Plan**



**Presentation to the Mobility, Sustainability &  
Beautification Committee**

***June 4, 2025***



# **Municipal Climate Action Plan Structure**

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- **Executive Summary of Plan**
- **Introduction**
- **Climate Change Impacts in Toledo**
- **The Source of Local Municipal Greenhouse Gas Emissions**
- **Developing the Municipal Climate Action Plan**
- **Taking Municipal Action**
- **Implementation Plan/Priority Projects**
- **Conclusion**

# Climate Change Impacts in Toledo



## High Risk Impacts

- Flooding
- Harmful Algal Blooms
- Severe Thunderstorms
- Severe Winter Weather



## Medium Risk Impacts

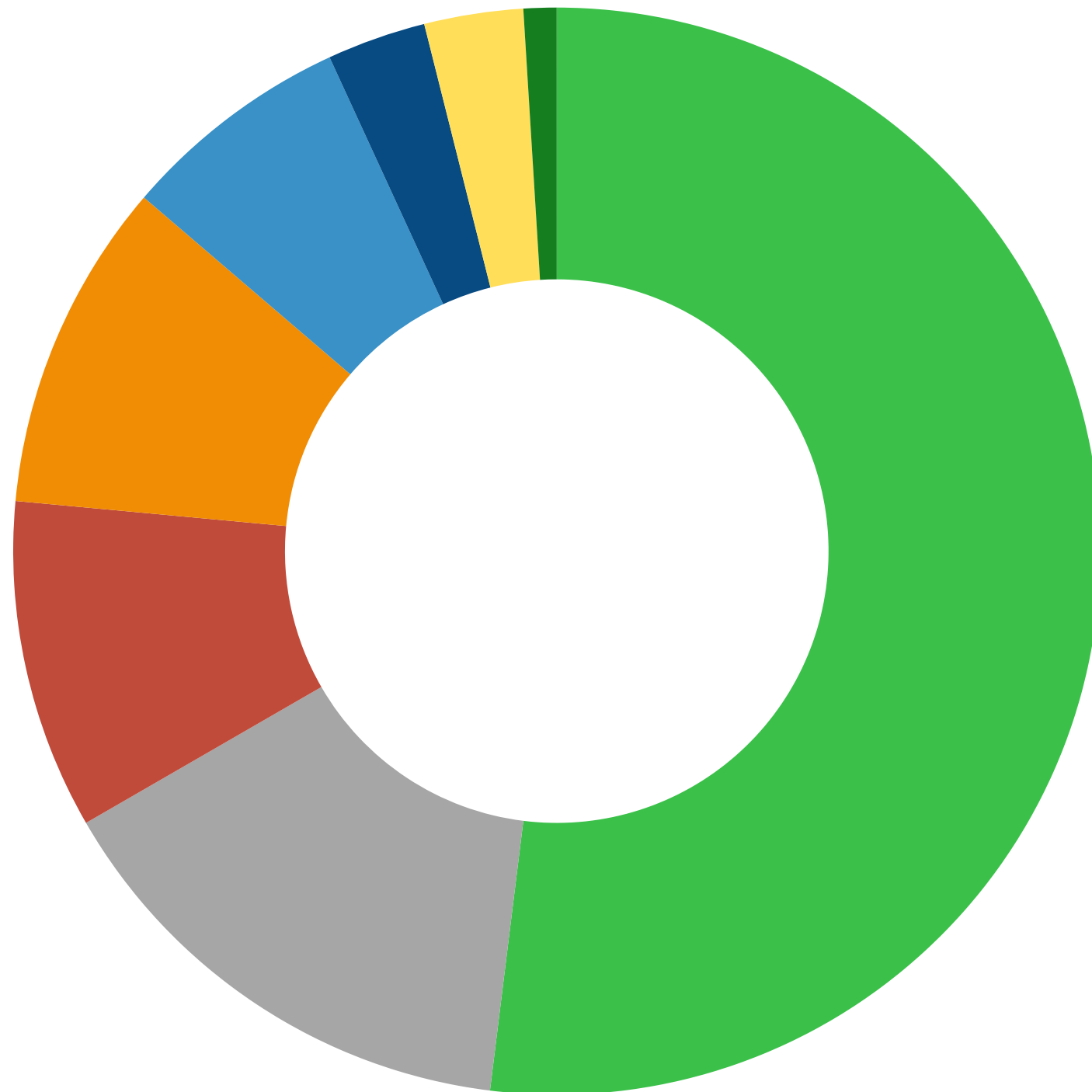
- Tornado
- Wildfire
- Severe Wind



## Low Risk Impacts

- Coastal Erosion
- Drought
- Lake Surge
- Landslides
- Temperature Extremes

## City Operations GHG Inventory (2023)



- Electricity: 52%
- Solid Waste (Landfill): 15%
- Stationary Combustion (Natural Gas, Propane, and Other Fuels in Buildings): 10%
- Mobile Combustion (City Fleet): 10%
- Employee Commute: 7%
- Wastewater: 3%
- Other (Electric Line Loss and Fugitive Emissions): 3%
- Agriculture and Land Management: <1%





# **Taking Municipal Action**



# Municipal Strategies and Actions

**One Goal: Make City Operations  
More Sustainable**

**8**  
**Strategies**

**72**  
**Actions**

## Types of Actions include:

- Goals and targets
- Policy development
- Infrastructure project
- Program development
- Staff education, training, and outreach
- Incentives





# Overall Municipal Operations

## Strategy 1: Establish the Toledo City government as a leader in sustainable operations

### Existing Progress

- ✓ Established a 30% GHG emission reduction goal
- ✓ Created the One Percent for the Environment Fund
- ✓ Hired first City Sustainability Manager and DPU Sustainability Coordinator
- ✓ Created the Environmental Protection and Climate Resilience Commission
- ✓ Established an informal Green Team

### Policy Actions

- Set a **GHG emission reduction target** for municipal operations to be 50% by 2030 and net zero by 2050 (1.1)
- **Update** municipal GHG Emissions **Inventory** every 5 years (1.2)

### Implementation Actions

- Dedicate **One Percent for the Environment** funds on community-facing initiatives that decrease GHG emissions, advance equity, and improve sustainability (1.3)
- Launch a Climate Action Plan **dashboard** and report on progress to the City employees and the public (1.4)
- Establish **sustainability** criteria into planning and decision-making for **capital improvement projects** (1.5)
- Establish a **green bank or revolving loan fund** to recapitalize elective pay funds (1.6)
- Join the **Urban Sustainability Directors Network** (USDN) (1.7)



# Buildings and Energy

## Strategy 2: Increase renewable energy and reduce energy use in city-owned properties and assets

### Existing Progress

- ✓ Achieved Bronze SolSmart designation
- ✓ Converted most of the indoor lighting to LED bulbs
- ✓ Completed Facility Conditions Assessments for community centers and senior centers
- ✓ Codified Toledo Public Power in the City Code

### Renewable Energy Actions

- Apply to obtain **SolSmart Platinum** designation by 2030 (2.1)
- Pursue **WindSmart** Designation (2.2)
- Determine the role of **Toledo Public Power** in increasing renewable energy supply for municipal facilities (2.3)
- Conduct a **Municipal Building Solar Feasibility Study**, including rooftop solar and solar canopies at City properties (2.4)
- Install **renewable energy** at municipal facilities (2.5)
- Investigate opportunities to develop **microgrids** alongside solar arrays (2.6)

### Energy Efficiency Actions

- Complete **conversion** of City-owned outdoor lighting to **LEDs** (2.7)
- Update **energy efficiency assessments** for municipal facilities, including an evaluation of HVAC and other heating equipment (2.8)
- Implement **ENERGY STAR Portfolio Manager** to analyze building energy use (2.9)





# Buildings and Energy

## Strategy 2: Increase renewable energy and reduce energy use in city-owned properties and assets

### Energy Efficiency Actions

- Implement **energy efficiency improvements** through a revolving loan fund or Guaranteed Energy Savings Contract (GESCC) in facilities with the highest energy usage (2.10)
- Design and launch a City employee **outreach and education campaign** on energy efficient habits (2.11)
- Require municipal facilities to consider **energy efficient appliances** for all replacements (2.12)
- Implement **building automation systems** in municipal buildings to reduce energy demand from heating, lighting, and other sources (2.13)
- Adopt a **Sustainable Building Policy** which requires the use of green building practices and sustainable materials by following LEED standards (or an equivalent certification) for new construction, major renovations, and preventative maintenance of City facilities (2.14)

### Other Actions

- Assess the City's real estate portfolio and **"right size"** city owned, rented and operated **property** (2.15)
- Create and display **educational materials** on the sustainability features of the community centers and how the spaces can be used sustainably (2.16)
- Pilot the use of **cool roof materials** and examine policy options to require cool roofs for roof replacement on municipal buildings (2.17)



# Transportation

## Strategy 3: Enable the use of low carbon modes of transportation

### Existing Progress

- ✓ Completed Fleet Assessment with PCFO
- ✓ Participated in the Charging Smart Program
- ✓ Passed an Electric Vehicle Resolution for the City's fleet
- ✓ Implemented Samsara Fleet Tracking
- ✓ Built out a comprehensive network of bike trails

### Electric Vehicles and Charging Actions

- Establish a **goal** for the transition of the City fleet to EVs (3.1)
- Establish **KPIs** for the EV Procurement Resolution (3.2)
- Explore opportunities to purchase EVs through a **bulk purchasing** or group purchasing arrangements (3.3)
- Require any new construction of a municipal facility to be **EV ready** with parking facilities (3.4)
- Assess existing charging infrastructure and install **additional EV chargers** on City-owned property (3.5)

### City Fleet Emission Reduction Actions

- **Transition heavy-duty equipment** and vehicles to electric models or low-carbon fuels (3.6)
- Develop and pass an **anti-idling ordinance** for all City vehicles (3.7)
- Create and launch a **training program** for employees operating the City fleet to reduce idling and promote fuel efficient driving practices (3.8)





# Transportation

## Strategy 3: Enable the use of low carbon modes of transportation

### Employee Commute Actions

- Conduct a City employee **commuter survey** (3.9)
- Provide **incentives** for City employees to transition from single-occupancy vehicles to other commuting modes, such as public transit, carpooling, biking, and walking (3.10)
- Increase capacity of **bike racks and storage** on City property (3.11)
- Evaluate the City's **remote working policy** and invest in teleconferencing infrastructure to reduce employee commuting (3.12)







# Materials and Waste

## Strategy 4: Reduce consumption and facilitate increased waste diversion

### Existing Progress

- ✓ Operates a residential curbside recycling program
- ✓ Constructing a new Local Material Recovery Facility (MRF)
- ✓ Launched three food waste drop off sites
- ✓ Implementing a paperless permitting system
- ✓ Offers an annual Leaf Collection program and Clean Toledo events

### Recycling and Composting Actions

- Set a **recycling rate goal** for waste generated at City facilities (4.1)
- Conduct an **assessment** of how much waste is currently recycled at City facilities (4.2)
- Assess the **Hoffman Road** office **recycling pilot** and use learnings to implement full recycling at all City facilities (4.3)
- Design and launch a recycling and composting **training program** for all City employees (4.4)
- Mandate that all **City** hosted and sponsored **events** work toward **zero waste** with recycling, composting and no disposables (4.5)
- Expand **composting drop-off sites** to service all City facilities (4.6)
- Set up a **pilot program** to utilize compost for end use on City property (4.7)
- **Train** City landscapers on best practices composting yard waste and other compostable materials (4.8)
- Conduct periodic **waste audits** of the municipal waste stream and provide education to City staff (4.9)





# Materials and Waste

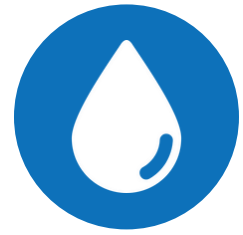
## Strategy 4: Reduce consumption and facilitate increased waste diversion

### Operational Waste Reduction Actions

- Adopt a **Sustainable Purchasing Policy** to prioritize local, sustainable, and recycled materials (4.10)
- Implement a City-wide **paperless initiative** to identify ways to reduce paper usage and increase efficiency (4.11)
- Implement an **employee incentive program** to highlight ways to reduce waste from City operations (4.12)
- Explore opportunities for **methane capture** at the Hoffman Road Landfill and the Bay View Wastewater Treatment Facility (4.13)







# Water and Wastewater

## Strategy 5: Conserve water resources and adapt land management practices for sustainable water use

### Existing Progress

- ✓ Adopted a Department of Public Utilities Sustainability Plan
- ✓ Dedicated \$625 million toward Wastewater Treatment Plant upgrades
- ✓ Replaced all residential water meters with Advanced Metering Infrastructure (AMI)
- ✓ Completing a two-phase Delaware Creek Improvement project

### Water Efficiency and Conservation Actions

- Require municipal facilities to consider **water efficient appliances** for all replacements (5.3)
- Design and launch an **education campaign** for City employees about water conservation (5.4)
- Implement **smart irrigation systems** at properties with high irrigation water use (5.5)
- Install **rainwater capture infrastructure** for facilities with high non-potable water demand and adequate rooftop area (5.8)
- Evaluate opportunities to implement projects that utilize **recycled water** (5.9)

### Wastewater Management Actions

- Continue to invest in **energy efficiency improvements** at the water treatment and water reclamation facilities (5.1)
- Explore opportunities to implement **sewer thermal energy recovery** in wastewater treatment (5.2)
- Increase the amount of **permeable surfaces** that exist on City-owned property (5.6)
- Launch a **Green Infrastructure Pilot program** on City properties that are prone to flooding (5.7)





# Air Quality and Public Health

## Strategy 6: Protect city employee health and well-being

### Existing Progress

- ✓ Leads an awareness campaign “Ozone Action Season”
- ✓ Operates an Air Section under the Environmental Services Division
- ✓ Provides free gas cap testing in partnership with TMACOG

- Educate and incentivize **improving indoor air quality** in municipal buildings (6.1)
- Encourage City employees to **balance** using outdoor air circulation in buildings with traditional HVAC sources for comfort and air quality as the weather permits (6.2)
- Perform **indoor air quality assessments** to evaluate building health (6.3)
- Conduct **regular cleaning and maintenance of HVAC systems** to ensure healthy indoor air quality (6.4)







# Food Systems

## Strategy 7: Prioritize and expand local food systems

### Existing Progress

- ✓ Offers the Community Garden Water Program
- ✓ Conducting a study on adopting a Healthy Food Overlay and Small-box Discount Store regulations
- ✓ Launched the Healthy Corner Store Initiative
- ✓ Hired first Food Policy Manager for the City
- ✓ Codified food access as a priority in the Forward Toledo Plan

- Assess the viability of **agrivoltaics** on City property (7.1)
- Develop a "**local food first**" procurement policy for City operations (7.2)
- **Reduce** City operations use of **harmful chemical pesticides** and fertilizers (7.3)
- Assess the City's **food shed logistics** and identify improvements to reduce greenhouse gas emissions (7.4)







# Natural Areas and Land Use

## Strategy 8: Maximize ecosystem services on city property

### Existing Progress

- ✓ Leading a Brownfield Revitalization Program
- ✓ Implementing the RE-TREE Toledo initiative
- ✓ Partnering on the Toledo-Lucas County Rain Garden Initiative
- ✓ Completed the Glass City Metropark project
- ✓ Conducted mapping of the urban tree canopy and urban heat island effect

### Trees and Green Spaces Actions

- **Increase tree canopy** on City property (8.1)
- Plant more **native plants and pollinator plants** on City property (8.3)
- **Remediate vacant lots** for repurposing by addressing environmental concerns, removing debris, and installing native, low-maintenance plants (8.5)
- Adopt policies to **protect a healthy, mature tree canopy**, prioritizing preservation of the largest existing trees (8.6)

### Operational Emissions Actions

- Assess the mowing schedule on non park spaces, vacant land and City right of way land and **reduce mowing footprint** by 40% by 2030 (8.2)
- **Pilot electric mowers and push mowers** in City parks and on City property (8.4)



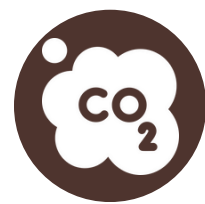


# Implementation Plan



# Implementation Matrix

The Implementation Matrix serves as a tool to help guide the City of Toledo in putting the Municipal Climate Action Plan into action, providing:



Greenhouse Gas Reduction Potential



Cost



Timeframe



Responsible Authority



Key Performance Indicators



Funding and Implementation Resources

# Priority Projects

**The MCAP identifies ten priority projects with high greenhouse gas emission reduction potential to support implementation action and budget allocation.**

Each priority project includes:

- Description of the action, its benefits, and implementation steps
- Estimated costs
- Suggested budget
- Implementation resources, including funding and best practice resources
- Key performance indicators (KPIs)



# Priority Projects:

## Buildings, Energy, and Transportation

### Buildings and Energy

- Install **renewable energy** on municipal facilities (2.5)
- Investigate opportunities to develop **microgrids** alongside solar arrays (2.6)
- Update **energy efficiency assessments** for municipal facilities, including an evaluation of HVAC and other heating equipment (2.8)
- **Implement energy efficiency improvements** through a revolving loan fund or Guaranteed Energy Savings Contract (GESCC) in facilities with the highest energy usage (2.10)

### Transportation

- Assess existing charging infrastructure and install additional **EV chargers** on city-owned property (3.5)
- Increase capacity of **bike racks and storage** on city property (3.11)

# Priority Projects:

## Waste, Water, and Land Use

### Materials and Waste

- Assess the Hoffman Road office recycling pilot and use learnings to implement **full recycling at all city facilities** (4.3)
- Expand **composting drop-off** sites to service all city facilities (4.6)

### Water and Wastewater

- Install **rainwater capture infrastructure** for facilities with high non-potable water demand and adequate rooftop area (5.8)

### Natural Areas and Land Use

- Remediate **vacant lots** for repurposing by addressing environmental concerns, removing debris, and installing native, low-maintenance plants (8.5)



# THANK YOU



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