

# Green Worcester Draft Plan Presentation

**URBAN TECHNOLOGIES, INNOVATION AND ENVIRONMENT COMMITTEE**

**Wednesday, February 24, 2021**

**Location: Virtual**

**Presented by: John Odell, Luba Zhaurova and Larissa Brown**



**GREEN  
WORCESTER**

Community | Resilience | Sustainability

*Naming:*

The Green Worcester Plan is short for

The Green Worcester Sustainability  
and Resilience Strategic Plan



Green Worcester Draft Plan Presentation – TIE Committee  
Public Hearing 2/24/2021



Thank you to the City Council and City Manager for enabling this important work.

Thank you to the city residents, and representatives of Worcester's institutional, business, and nonprofit communities for participating in the process.

Thank you to City staff who participated in making this plan a reality.



## Special thanks to members of the Green Worcester Plan Working Group and to our consultant:

- Jacquelyn Burmeister, Senior Environmental Analyst, Lakes and Ponds Program (Blue Spaces)
- Deborah Cary, Executive Director, Mass Audubon Broadmeadow Brook
- Raquel Castor-Corazzini, Director, Worcester Public Health Division of Youth Opportunities
- Lenny Ciuffredo, Resident
- Ted D. Conna, Resident, Former Executive Director, Regional Environmental Council (REC)
- Stefanie Covino, Worcester Conservation Planner
- Jeuji Diamondstone, Resident, member Worcester Community Energy Action and other groups
- Steve Fischer, Executive Director, Regional Environmental Council (REC)
- Jonathan P. Gervais, Environmental Manager, Department of Public Works
- Karin Valentine Goins, Resident, member, Transportation Advisory Group and WalkBike Worcester
- Konnie Lukes, Resident, Former City Mayor
- Mia McDonald, Resident, Former member/agent, Worcester Conservation Commission
- Gaylen Moore, Resident, Member, Mothers Out Front
- Selina Gallo-Cruz, Resident, Member, Mothers Out Front
- Joe O'Brien, Resident, Executive Director, MPA Senior Leadership Program at Clark University, former Mayor
- John Odell, Director, Worcester Department of Energy and Asset Management
- Errica Saunders, Resident, Member, 350 Central Mass
- Ruth Seward, Executive Director, Worcester Tree Initiative at Tower Hill
- Michelle Smith, Chief Planner, City of Worcester
- Luba Zhaurova, Project Manager, Division of Energy and Asset Management



# The Green Worcester Plan's Timeline and Public Participation Process:

- 2018, Nov – City Manager convened **Green Worcester Working Group** - staff, representatives of environmental and other groups, residents
- 2019, March – Energy and Asset Management Division, as the municipal project manager, engaged Larissa Brown + Associates to assist with the project

## Public Input:

- 2019, Summer - Professional, scientific telephone public opinion survey of residents and online version of the survey (both in English and Spanish)
- 2019, October - Public workshop
- 2019, Fall - Youth survey
- 2020, March - Public drop-in open house
- 2020, Nov - Online Public Review of the Draft Plan

## Council Review & Approval:

- 2021, Jan – Green Worcester Plan draft submitted to City Council
- 2021, Feb – Public Hearing in front of the Council's Committee
- Forthcoming – TIE Committee recommendation to the Council and Council's vote

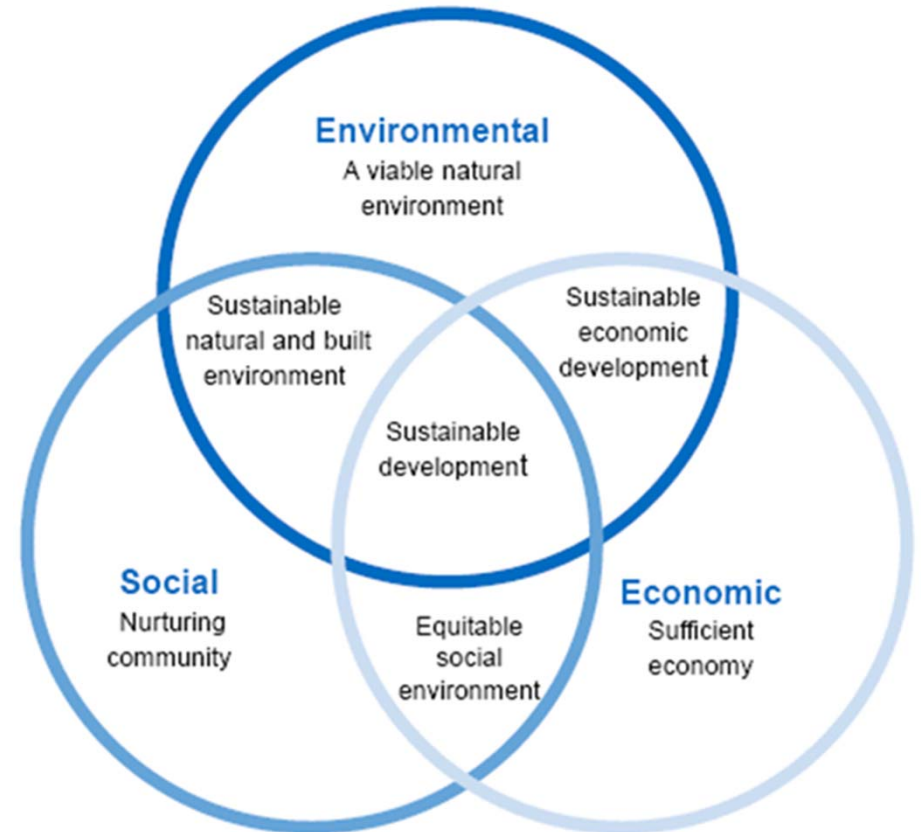


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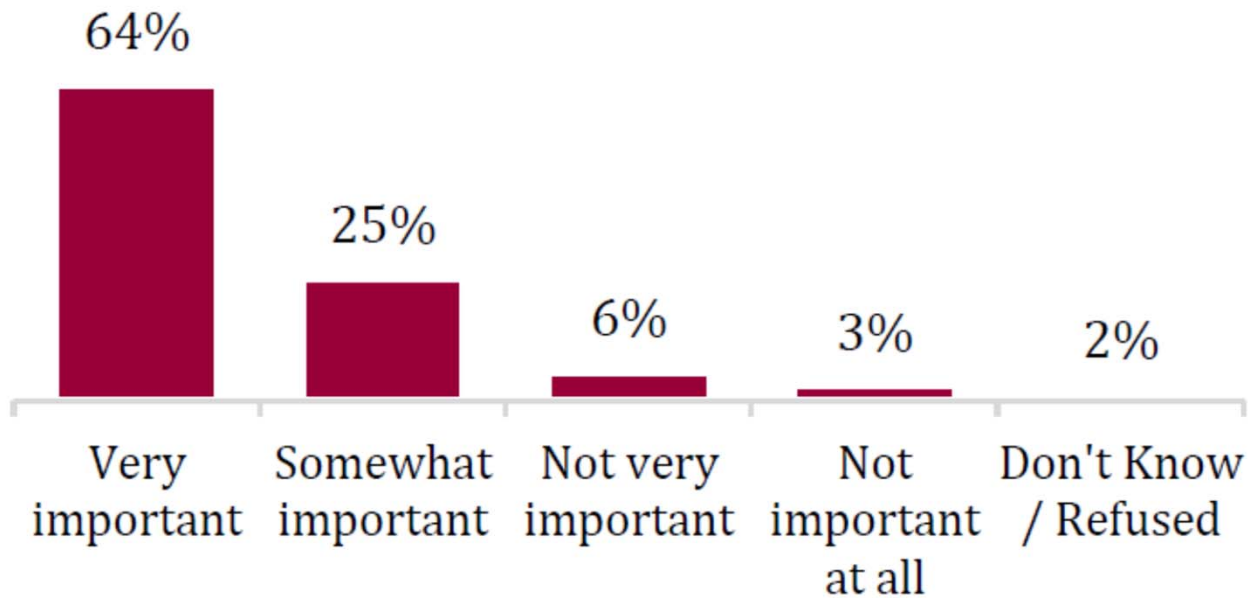


# Definitions: What we mean by sustainability and resilience

- **Sustainability:** meet the needs of today's generation, without compromising the ability of future generations to meet their own needs.
- **Resilience:** capacity to withstand and adapt to climate change.
- **The Sustainability Triple Bottom Line:** Integration of environmental, social, and economic values for sustainable outcomes.



## Survey Results: Worcester residents value making the city more sustainable



*Q: How important is it to you that Worcester works on becoming a city that is "green" and sustainable?*

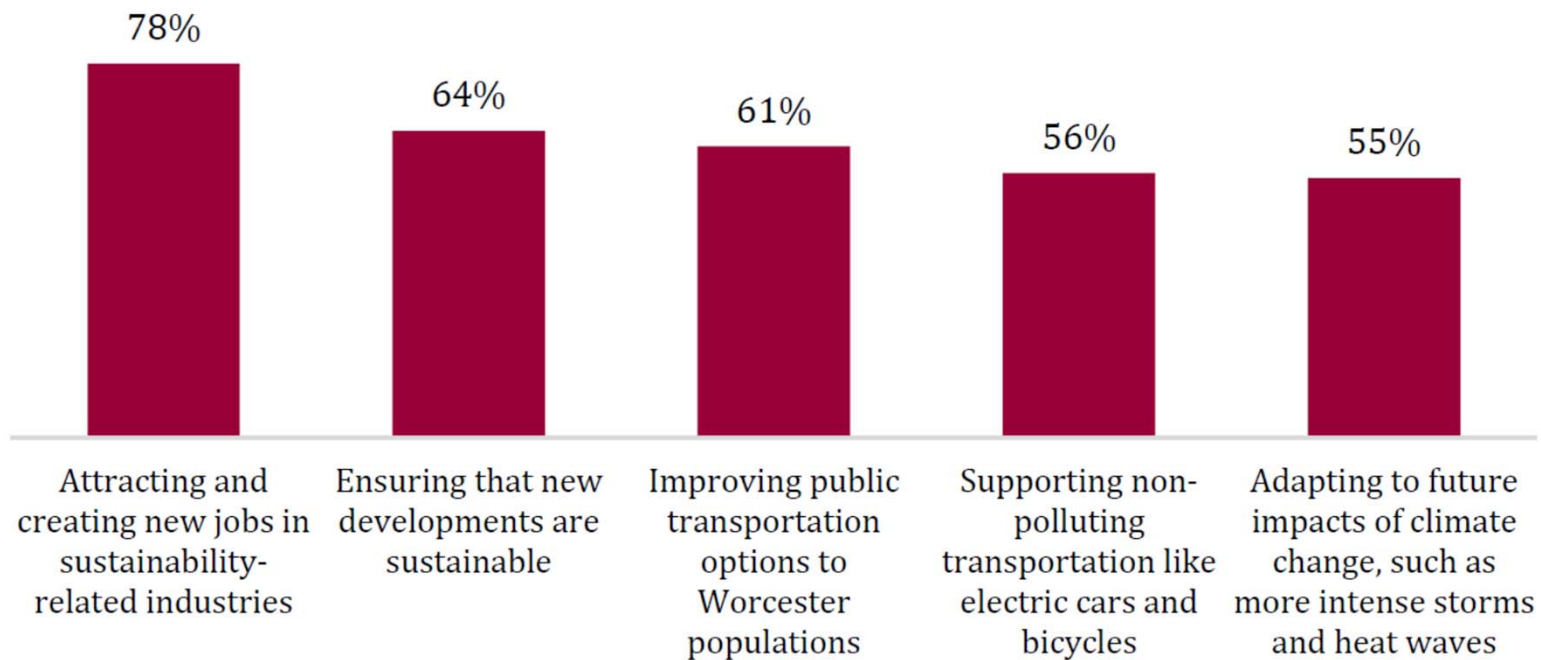
- *Telephone survey of representative sample of Worcester residents (606 respondents – English and Spanish)*
- *People of Color: 74% “very important”*
- *Whites: 59% “very important”*



# Survey Results: Resident top priorities are sustainability in new jobs, development, transportation, climate change resilience

**Figure 3: Residents' future priorities for sustainability in Worcester**

*% calling each major priority for making Worcester a more sustainable place in the future*





## The Green Worcester Vision:

### To become the greenest mid-size city in the country!

- 21<sup>st</sup> century Worcester will be sustainable, resilient, green, livable, prosperous, and equitable.
- Government, residents, businesses and institutions will work together in shared stewardship and mutual care of our city and our planet.
- We will use our resources efficiently and wisely for minimal impact on our environment, while integrating sustainability and resilience into all policies.
- Powered 100% by clean and affordable energy, we will be physically, socially, and economically resilient to the impacts of climate change.
- Our commitment to sustainability and resilience will benefit everyone who lives, works, and studies in Worcester.



## The Green Worcester Plan is a “Living Plan.”

- Both aspirational and pragmatic.
- Not overly prescriptive. Encourages accelerated actions and goals as opportunities arise, such as financial and regulatory assistance from State and Federal authorities.
- Integrated planning and implementation – no more silos!
- Transparent and accountable through an annual public report on progress.
- Based on community participation and collaborative partnerships.
- Focused on actions that have multiple co-benefits.

## What the Green Worcester Plan is...

- A **broad strategic framework** for sustainability and resilience
- An **integrated and systematic approach** to making Worcester one of the “greenest” medium-size cities in the country.
- A plan **focused on City leadership**, goals, strategies and actions **in partnership** with residents, businesses, institutions, nonprofits, state and federal governments.



## What the Green Worcester Plan is NOT...

- A prescriptive blueprint with detailed analysis or all possible actions or interventions to achieve the goals.
- Any of the existing or proposed municipal plans (listed below), or a Climate Action Plan.

Instead, the GWP is an integrated policy framework or umbrella plan, with further recommendations for new functional plans and integration with existing/upcoming municipal plans.

New Functional Plans to be Developed:	Other Related Existing Municipal Plans & Updates:
Pedestrian, Bicycle and Micromobility Plan	Complete Streets Plan
Urban Forestry Master Plan	Comprehensive Plan
Zero Waste Master Plan	Comprehensive Health Improvement Plan
	Hazard Mitigation Plan
	Integrated Water Management Plan
	Municipal Vulnerability Plan
	Open Space and Recreation Plan

# The Green Worcester Plan is guided by three “lenses.”

- **Equity:** All people have the same rights to live, work, and play in healthy environments and make decisions about their environments.
- **Health:** Ensure that policies and actions promote healthy outcomes and avoid harmful health impacts.
- **Prosperity:** Jobs and economic benefits for all from sustainable policies and initiatives.



# The GWP provides a strong foundation for more partnerships with the State.

- **Existing State legislation:**

- 2008: Global Warming Solutions Act and Green Communities Act
- 2016: An Act to Promote Energy Diversity
- 2018: An Act to Advance Clean Energy

- **Current State legislation currently under discussion between the legislature and the Governor:**

- 2020-2021: An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy
- Governor seeking some flexibility in benchmarks
- Legislation expected to pass



## Future Worcester partnership opportunities will likely be through the Roadmap Act.

- GWP includes discussion of subsectors and benchmarks in the Roadmap Act
- The Roadmap Act:
  - Allows cities to adopt local bans on fossil fuels in new construction.
  - Allows gas utilities to pilot geothermal heating and cooling
  - Mandates a new local net zero stretch energy code for municipal opt-in
  - Prioritizes environmental justice communities for solar incentives
  - Provides workforce development funding and other pathways to clean energy jobs for underserved and low-income communities and fossil fuel workers
  - Requires cost-effectiveness analysis to include calculation of social value of greenhouse gas emissions reductions (Sustainability Triple Bottom Line)



# Goal: 100% Clean and Affordable Energy

By 2030: 100% renewable energy for municipal facilities.

By 2035: 100% renewable electricity citywide.

By 2045: 100% renewable energy that includes heating and transportation.

## Strategies:

- Greenhouse Gas Emissions Inventory Update
- Net Zero City municipal facilities and operations by 2030
- Community Choice Electricity Aggregation Plan – 100% renewable community-wide by 2035
- Set a “climate budget” for city government
- Citywide policies and regulations on building performance, flexible commutes, EV charging stations
- Collaborate with State government





## Comparison to IPCC Targets:

IPCC Targets	GWP Targets
By 2030: Global 50% greenhouse gas emissions reductions	By 2030: 100% renewable energy for municipal facilities.  By 2035: 100% renewable electricity citywide.
By 2050: Global 100% greenhouse gas emissions reductions	By 2045: 100% renewable energy that includes heating and transportation.

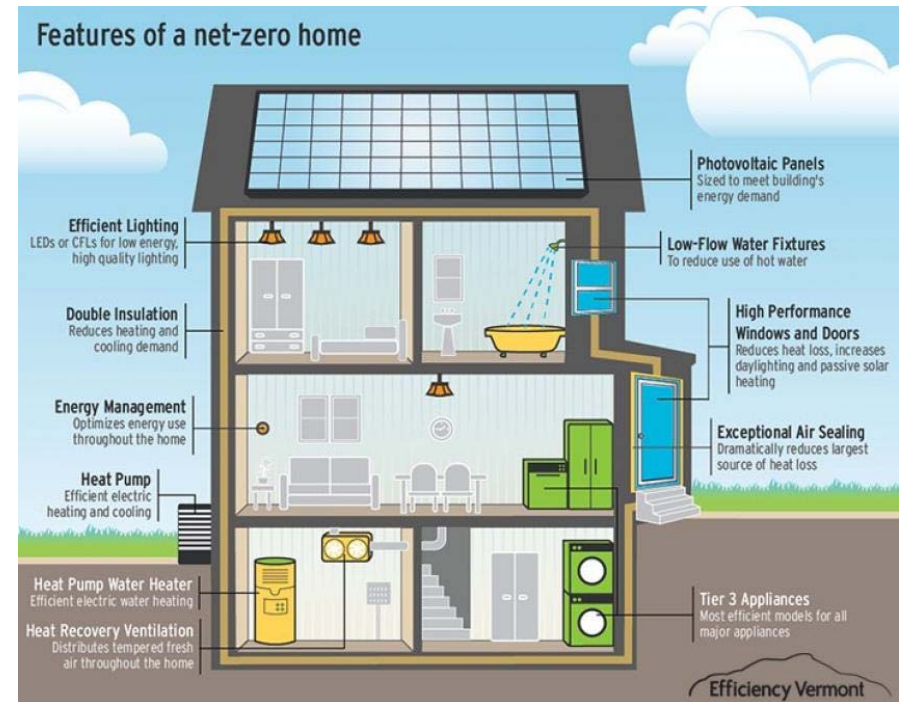


# Goal: Net-Zero and Climate Resilient Buildings

Require new buildings to be net zero and climate-resilient, and promote deep energy retrofits of existing buildings.

## Strategies:

- Use no fossil fuels as primary source of building energy in new City buildings
- Renewable electricity rather than fossil fuels for building energy systems
- Promote energy retrofits for existing buildings



# Goal: Climate Change Resilience

Make the city resilient to climate change impacts, such as extreme storms, flooding, and heat.

## Strategies:

- Improve management of the stormwater system to mitigate flooding
- Give priority to green infrastructure to mitigate urban heat island impacts and flooding
- Protect critical city-owned buildings from climate change impacts
- Protect open spaces and water resources and expand the tree canopy



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## CITY OF WORCESTER



### Municipal Vulnerability Preparedness Plan: Findings & Recommendations

June 2019



City of Worcester | Municipal Vulnerability Preparedness (MVP) Plan  
Prepared by: K. Evfelder, reviewed and approved by the City of Worcester  
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June 20, 2019

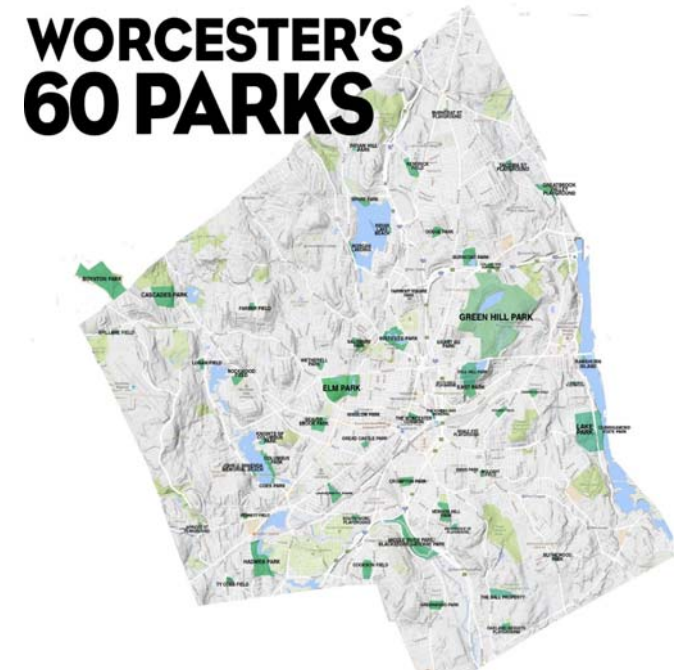


# Goal: Connected Green and Blue Spaces with Healthy Natural Systems

Maintain, improve, connect, and expand quality natural systems in a linked network of parks, open spaces, and water bodies, including street trees and public spaces.

## Strategies:

- Develop and implement an Urban Forestry Plan
- Give high priority to green spaces in the urban core
- Connect open spaces

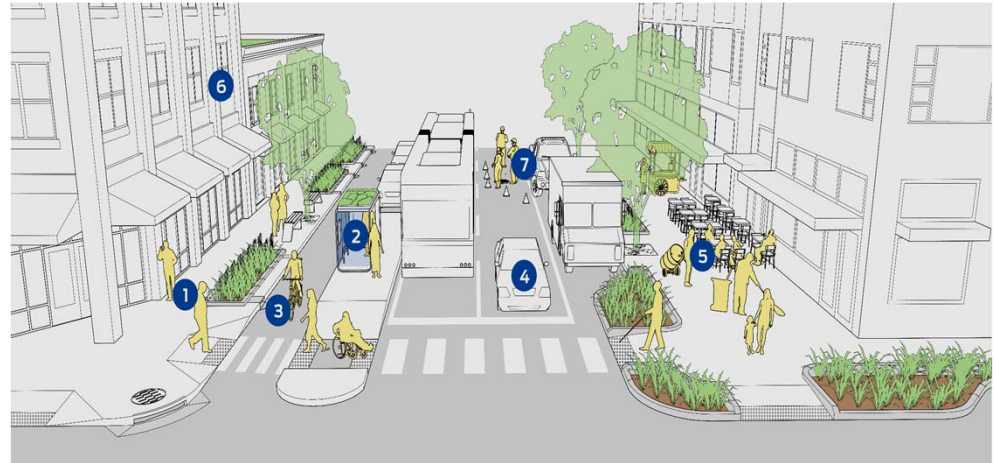


**20 LAKES  
AND PONDS**



# Goal: Sustainable Transportation Choices

Provide safe, convenient, and comfortable pedestrian, bicycle, and public transportation networks and transition to vehicles powered by renewable electricity.



## Strategies:

- Develop and implement a Pedestrian, Bicycle, and Micromobility Plan
- Shift more trips from cars to transit, biking, and walking
- Power most automobiles, trucks, buses, and trains with electricity
- Reduce automobile trips through efficient land use policies and development patterns



# Goal: Zero Waste

Implement a plan to prevent – reduce – reuse – compost – and recycle waste.

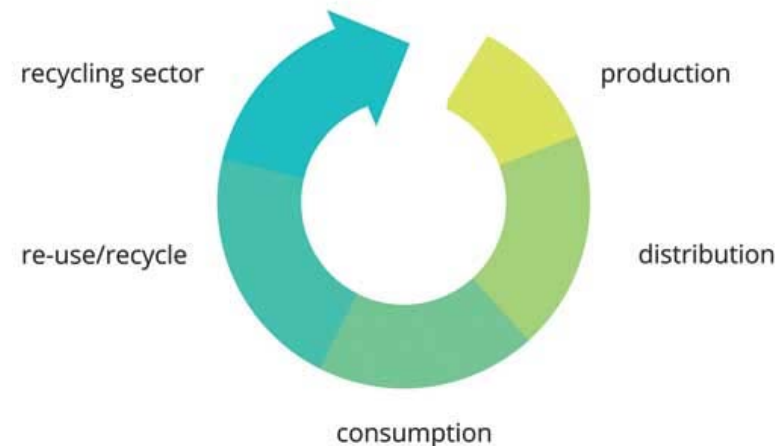
## Strategies:

- Develop and implement a Zero Waste Master Plan
- Develop a residential green waste diversion program
- Require plans for sustainable disposal of construction and demolition waste
- Develop expanded city procurement policies to reduce waste and toxics

## LINEAR ECONOMY



## CIRCULAR ECONOMY

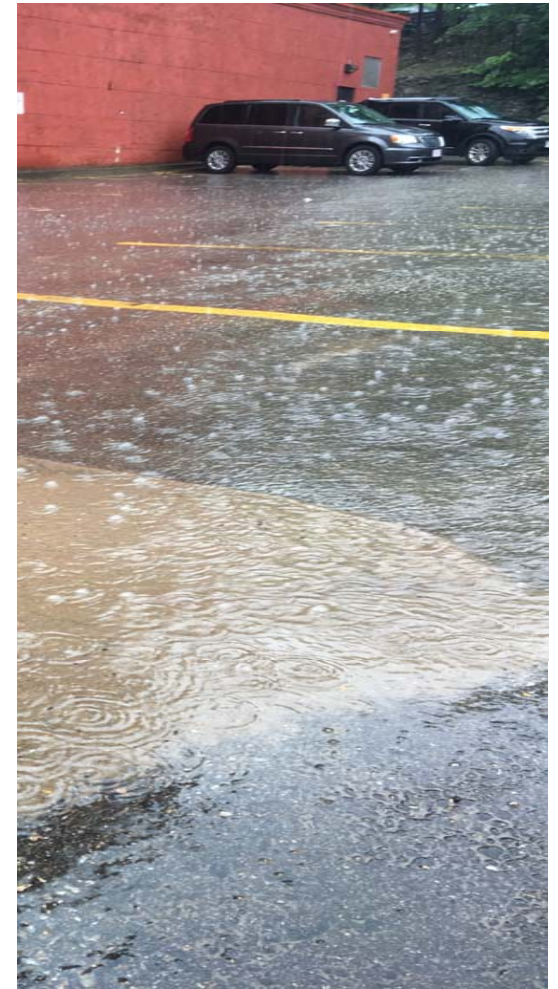


# Goal: “One Water” Integrated Water Management

Manage drinking water, wastewater, and stormwater as one resource; increase the use of natural green infrastructure to manage stormwater and to avoid flooding.

## Strategies:

- Prioritize sustainability and resilience benefits when implementing the Integrated Water Management Plan.
- Identify and implement opportunities for green infrastructure in City facilities and landscapes.
- Reduce nonpoint source pollution on public and private property by establishing and promoting sustainable landscape practices that eliminate or minimize excess fertilizer, herbicide, and pesticide use.



# Goal: Sustainable Local Food Systems

Ensure that residents have access to food that is sustainably-produced, locally-sourced, healthy, affordable, and culturally-appropriate.

## Strategies:

- Expand urban agriculture programs serving low-income and food-insecure populations
- Expand local food sourcing policies for the City and for institutions
- Promote development of the local food marketplace
- Develop a resilient regional food production, processing, and distribution system



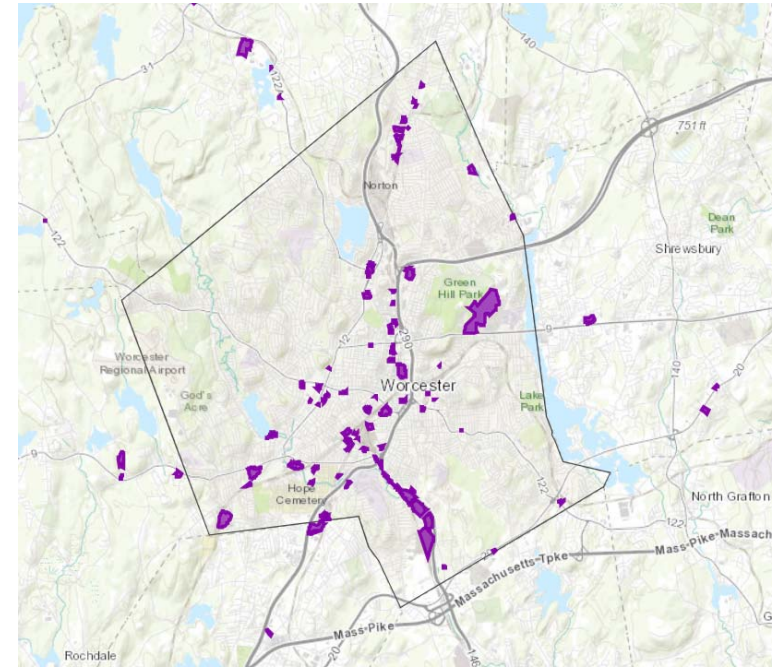


# Goal: Pollution Prevention

Ensure that residents breathe healthy indoor and outdoor air and are not exposed to contaminated soils and toxic products.

## Strategies:

- Transition to less polluting transportation choices to further reduce air pollution hazards
- Continue lead abatement and brownfields programs, taking advantage of state and federal funding
- Continue and refine the Worcester Public Schools policies to reduce pollution and use of toxics
- Update the City's Environmentally Preferable Purchasing Policy



# Goal: Sustainability, Resilience, and Green Education in All Policies

- Implement integrated planning for quality of life, using sustainability and resilience criteria for land use, transportation, housing, and economic development planning and project evaluation.
- Make Worcester the regional center for sustainability education and training for green jobs.

## Strategies:

- Integrate GWP goals and strategies into the City's Comprehensive Plan and land use policies.
- Promote “green education” to the public and in schools.
- Convene public and private partners to create a green workforce training initiative.



# Implementation: Stewardship, Transparency and Accountability

- A new City of Worcester **Department of Sustainability and Resilience**
- **Green Worcester Advisory Committee** of non-governmental stakeholders include representation from environmental justice communities
- Green Worcester **Coordinators in each City department**
- **Inter-Departmental Implementation Committee**
- **Sustainability Report Cards** for projects
- Sustainability and resiliency **codes and regulations**
- **Adequate City staff and partners** for data collection, training, maintenance, and enforcement
- **Pursue state, federal, and philanthropic funds**
- Establish a **Green Worcester Fund** – dedicated source of funding for green projects



## Implementation: Stewardship, Transparency and Accountability

- **Annual Green Worcester Progress Report** to the public on implementation
- Sustainability and Resilience **Dashboard**
- **Public Outreach Strategy**
- Sustainability and resilience **education in the Worcester Public Schools**
- **Promotion to private stakeholders**, such as businesses, institutions, faith communities, etc.
- **With partners – create a coordinating organization** for Worcester sustainability and resilience efforts



Thank you for listening!

Find more information, including a copy of these  
slides, please visit  
[www.worcesterma.gov/GreenWorcester](http://www.worcesterma.gov/GreenWorcester)



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# Q&A



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