

# GREEN WORCESTER PLAN

## Annual Progress Report

January 2024 – December 2024

*Produced by the Department of Sustainability and Resilience,  
in collaboration with the Green Worcester Advisory Committee*



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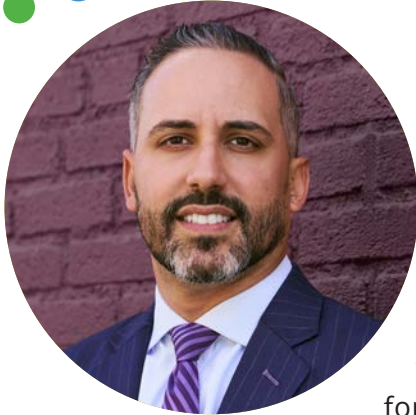
OUR PLANET, OUR FUTURE.

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## Letter from the City Manager

Dear Partners, Neighbors, and Friends,

The Green Worcester Plan (GWP) remains our city's roadmap to a sustainable and resilient future. At its core, the plan is grounded in collaboration and community engagement. With this annual report, we aim to share the progress we've made, reflect on the challenges we've faced, and reaffirm our collective vision for Worcester.

We have made meaningful strides toward this vision as a city, even as pollution has significantly increased nationwide over the past 15 years. The city's latest greenhouse gas (GHG) inventory shows an 9.5% reduction in emissions from 2009 to 2023—a step forward, but we recognize it's not enough. To accelerate our momentum, we've launched the development of a Decarbonization Roadmap for Worcester and are moving into the next phase of our Energy Savings Performance Contract—a major initiative that has already delivered an 18.6% reduction in municipal energy use over the past decade.

When we first wrote the GWP, we did so with the expectation that state and federal partners would actively support our emission-reduction goals. However, in light of recent priority shifts at the national level, that support is no longer guaranteed. While we remain fully committed to reducing emissions, we are also doubling down on local resilience efforts to ensure Worcester is prepared for the impacts of climate change. Departments have resources to collaborate on enhancing flood protection, reducing heat vulnerability, and building a city that can thrive amid changing climate conditions.

At the same time, sustainability in Worcester has always been about more than just emissions—it's about community resilience, equity, and quality of life. This year, hundreds of residents came together to plant the city's first Miyawaki Forests (densely packed native forests known to help with carbon dioxide absorption and managing storm water run-off), demonstrating the powerful impact of grassroots climate action. These local efforts matter now more than ever.

Last fall, my Administration released the 2025–2029 Municipal Strategic Plan, which elevates sustainability and resilience as key priorities across departments and initiatives. These values are no longer siloed—they're woven throughout the municipality's broader vision for growth and well-being.



Over the next year, we will continue advancing efforts to reduce carbon emissions, plant more trees, improve neighborhood livability, and expand waste reduction programs. The path forward won't be without its challenges, but we're confident that—through collaboration, innovation, and community-driven solutions—Worcester can become one of the most sustainable and climate-resilient mid-sized cities in the country.

**Thank you for your continued support, partnership, and shared commitment to a greener, stronger Worcester.**

Sincerely,

Eric D. Batista  
City Manager



Photo courtesy of Leo DaSilva



## Statement by the Green Worcester Advisory Committee

April 25, 2025

**The Green Worcester Advisory Committee is charged with promoting and assisting in the full implementation of the ambitious Green Worcester Plan. Together with the Department of Sustainability and Resilience and the City of Worcester, our community is tackling complex issues during a uniquely challenging time in history. The City's commitment to sustainability is evident in this annual report, and as members of GWAC, we have a bird's eye view of both the progress government can make when the commitment is there, and the limitations to that progress. DSR has made impressive strides with the finite resources it has, but to fully accomplish sustainability goals, an active collaboration within city government and with the community is essential to magnify DSR's impact.**

We applaud DSR's work with other city departments to achieve cross-cutting goals, such as working with the Department of Transportation and Mobility to develop a Mobility Action Plan, and working with the Planning Division on the City's Now|Next Plan and upcoming zoning updates. And we especially want to highlight DSR's constructive engagement with the Worcester community.

Sustainability depends on the day-to-day decisions of everyone in our community, and that community is one of our most important resources. In 2024, Worcester created two new Miyawaki forests near the downtown library and at Plumley Village with the help of hundreds of volunteers, bringing the environmental benefits of a forest to densely populated areas and providing an opportunity for community members to "get their hands dirty" planting the forest, building ownership and experience for all.

The Worcester Cyanobacteria Monitoring Collaborative is a group of 30+ volunteer community scientists who help DSR's Lakes and Ponds program to monitor 25 water bodies in and around the city. DSR's Smart Energy Advice program provides one-on-one support to residents and small businesses who want to improve their energy efficiency. And DSR has crowdsourced information related to flooding, tree planting, waste management, litter mitigation, and more. DSR's collaborations with the community should be a model for application citywide, and in other cities and towns as well. In 2025, a watershed planning process will also reap the benefits of community input.

We owe this engaged community a debt of gratitude for their time, their labor, their expertise, and their ideas. There will be times when community members expect more from government than it can currently deliver, but even then, an open dialogue that includes all voices advances our collective knowledge and elevates the outcome in the long run. We believe that anyone who cares about sustainability enough to show up and speak up publicly should be our ally, not our adversary, and we are committed to a process which encourages and achieves that common purpose whenever possible.



The Green Worcester Plan also recognizes the importance of preparing our youth to live sustainably and to create a sustainable future. The better our community understands the need for this, the more support there will be for government resources to get the job done. Sustainability is a life skill, and the better we teach it, the better prepared our youth will be for the developing green economy they will graduate into. To that end, a DSR/GWAC team is collaborating with educators in the Worcester Public Schools to bring more sustainability education to its students. This, like all sustainability efforts, is an investment in our future, and our youth deserve nothing less.

The Green Worcester Plan's vision is that "sustainability and resilience principles will permeate education and all municipal policies and actions." We are not there yet, but in collaboration with our community, we are making steady progress. To anyone who believes there is hope for the future, this is exciting work. Every accomplishment is a building block for the next step, and the urgency is palpable. We must escalate our efforts in all areas to ensure a sustainable and resilient community for generations to come. GWAC congratulates DSR for its tremendous accomplishments in 2024, and we look forward to the progress ahead in 2025!

**Green Worcester Committee Members**

Mary Knittle, Chair

Evelyn Herwitz, Vice Chair

Patricia Austin

Ted Conna

Mary Leovich

Stephen McCauley

Deirdra Murphy





## Reading This Report

As part of the Green Worcester Plan, the City made a commitment to transparency and accountability. This progress report of the Green Worcester Plan (accepted in April of 2021) consists of the following sections:

- I **Summary** which provides a summary of progress over the last year.
- II **Looking Forward** which includes a list of the Department of Sustainability and Resilience's Priority Actions for 2025.
- III **Completed Actions** which includes a table displaying the Green Worcester Plan action items completed to date.
- IV **Status and Progress** which includes updates on all Green Worcester Plan actions from January 2024 through December 2024. This last section is broken into eleven sub-sections, covering chapters 2-12 of the plan. Each table includes the action item, the status, and a short description of the progress. Quantifiable data on progress is included when possible. We are using the following system to designate the status of each action:

Status	Description
Not Started	This action has not been started
In Progress	The City and/or community are working on action implementation (and it has a definitive end)
Ongoing	The action calls for recurring action(s) (with no definitive end)
Completed	The action is complete, and all milestones have been reached
Refocused	The action wasn't feasible, relevant, and/or necessary and therefore, it was refocused to a different action aligned with the intent of the initial action





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# SUMMARY

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## Summary



100+ volunteers  
planted 3,440 trees  
& shrubs in the  
City's first two  
Miyawaki Forests



30+ community  
scientists  
monitored  
cyanobacteria at  
20+ waterbodies



218,000,000+ lbs. of  
CO2 prevented due to  
the Green Worcester  
ElectriCITY Aggregation  
program (since 2019)



700+  
residents  
helped through  
our Smart Energy  
Advice program



100+ attendees  
at the first Green  
Worcester Summit,  
themed "Building  
Resilience, Together"

## Climate Change Mitigation

As greenhouse gas (GHG) emissions are the primary cause of climate change, moving city energy users to 100% clean and affordable energy by 2045 is a core tenet of the Green Worcester Plan. To do this, total net fossil-fuel-related emissions will need to be reduced to zero. The City has reduced its GHG emissions by 9.5% since 2009 even as our city has added more than 20,000 residents. Our efforts are driven by three main goals in the Green Worcester Plan:

- By 2030: Use 100% renewable energy for municipal facilities
- By 2035: Provide 100% residential renewable electricity city-wide through the Community Choice Aggregation program
- By 2045: Use 100% renewable energy for residences and businesses, including for heating and transportation

### Use 100% renewable energy for municipal facilities:

Carbon emissions from municipal operations have decreased by 18.6% since 2009. Municipal buildings, specifically, saw a 22% reduction in emissions. The reduction in building emissions stems from Worcester's dedication to making buildings more efficient through Energy Savings Performance Contracts (ESPC). These contracts allow the City to fund large-scale energy upgrades using projected cost savings.

In 2024, Worcester completed the sixth and final phase of its first ESPC, a 10+-year effort that has, so far, saved the city \$48 million and prevented 125,607 metric tons of carbon emissions (MTCO<sub>2</sub>e).

The City also completed building Doherty High School, now the most efficient city or school building in Worcester. Students began attending in Fall 2024. Solar panels, scheduled to come



online in Spring 2025, will enable the building to achieve LEED Gold certification – the first LEED Gold designation for a municipal building in Worcester.

### **Provide 100% renewable electricity city-wide:**

A primary goal of the Green Worcester Plan is providing 100% renewable electricity citywide. To help achieve this by 2035, the City began the Green Worcester ElectriCITY Aggregation Program in 2019. The program offers premium green electricity to residents at a fair and reliable rate. As of January 2024, 64% of the energy provided by the aggregation program is from green renewable plants in New England – National Grid is only required by the state to provide 24% renewable energy in their supply. Since 2019, the program has prevented over 218,000,000 pounds of carbon dioxide from being emitted into the atmosphere, the equivalent of taking over 23,000 gasoline-powered passenger vehicles off the road for one year.

### **Use 100% renewable energy for residences and businesses:**

Based on our 2023 GHG emissions inventory, buildings produce 57% of the City's GHG emissions. As the electrical grid continues to become greener, using electric heat pumps combined with using less energy will be key to lowering the City's GHG emissions. To help this transition, the City has completed the following:

- The City adopted the new Massachusetts Opt-in Specialized Stretch Code which went into effect in July 2024. The Specialized Stretch Code requires all new buildings to be essentially net zero ready – by promoting electrification and extensive weatherization that will reduce the cost and energy needed to heat and cool buildings.

- In 2023, the City launched the Smart Energy Advice program by hiring an Energy Advocate to promote energy efficiency improvements in homes and small businesses. The advocate focuses on reaching populations that have historically been underserved by Mass Save including landlords, small businesses, non-profits, income eligible households and English isolated households to help them access the program, apply for rebates, and receive energy assessments. In 2024, our Energy Advocate engaged with over 700 residents, assisted more than 150 low- and moderate-income residents, and presented or participated in over 30 community events.


### **Building Climate Change Resilience**

The City and its partners are striving to make Worcester more resilient to climate change impacts such as more frequent extreme storms, severe flooding, heat island effects, and more.

### **Increasing Our Tree Canopy and Biodiversity**

In Spring 2024, the City planted two Miyawaki Forests with the help of over 100 community volunteers. Using the innovative Miyawaki Method, these dense, biodiverse, native forests provide significant ecological and health benefits, such as reducing flooding, cooling urban heat islands, and boosting biodiversity. The forests were established in Environmental Justice areas: behind the Worcester Public Library Main Branch and at Plumley Village, an affordable housing complex. Notably, the library forest is the first in the state to replace pavement with a Miyawaki Forest, converting 6,500 square feet of asphalt into green space. At maturity, it will feature approximately 60 canopy trees, 700 shrubs, and 2,500 understory plants. The Plumley Village forest replaced 8,000 square feet of sod and will include 60 canopy trees, 900 shrubs, and 3,200 understory plants.





The City developed its first Urban Forest Master Plan which serves as a roadmap to proactively manage and grow the City's tree canopy and provides a shared vision for the future of the urban forest to help inspire us to care, plant and protect our trees. In 2024, the City allocated American Rescue Plan Act (ARPA) funding to enable a robust tree planting initiative over the next two years which will kick off in Spring 2025.

The City also funded the planting of a pollinator garden at the Worcester Public Library, upgrading the library's traditional flower beds with native flowers.

### **Reducing Flooding through Green Infrastructure (GI)**

The City completed its comprehensive Drainage and Green Infrastructure Master Plan, supported in part by a \$1.2 million state Municipal Vulnerability Preparedness Action Grant. This plan includes a detailed hydrological model of the City's drainage infrastructure, pinpointing major problem areas. It also outlines priority green and grey infrastructure projects that will help mitigate the impacts of extreme storms and enhance community resilience.

The City has increased its focus on maintaining previously installed GI projects to ensure their long-term effectiveness. As part of this effort, the City created a GI Assets Inventory, documenting completed GI projects. Additionally, the City is preparing to develop a comprehensive GI Maintenance Plan.

In 2024, the City partnered with the help of the Worcester Native Plant Initiative to revitalize a rain garden at the Senior Center, restoring its ability to efficiently capture and infiltrate stormwater runoff.

### **Monitoring and Managing Water Quality**

The Lakes and Ponds program trained and led over 30 community scientists to monitor cyanobacteria at over 20 waterbodies on 12 sampling days in 2024 through the Worcester Cyanobacteria Monitoring Collaborative (WCMC). This effort supported decision making for managing cyanobacteria and preventing harmful blooms. Program staff hosted and supported five volunteer invasive species removal events, gave five presentations to school groups, and hosted three public presentations. Based on eight years of water quality data collection, the program launched the development of watershed-based management plans to holistically reduce pollution and address root causes of water quality impairments at the watershed scale. Responsive to concerns raised by around 40 community members in 2024, the City is committed to better understanding sources of non-point pollution and the development of non-chemical alternative management strategies.

### **Advancing Mobility Transformation**

Our most recent Greenhouse Gas Emissions Inventory found that transportation produced 31% of the community's GHG emissions and 15.7% of municipal emissions. With such high associated emissions, transforming how we move continues to be crucial to meeting the goal of becoming a net zero city.

The Department of Transportation and Mobility (DTM), with the help of DSR and other stakeholders, completed the Mobility Action Plan in 2024. Sustainability is one of the four pillars of the Mobility Action Plan, along with safety, equity, and connectivity. The plan commits to reducing the impact of our transportation system on our environment and public health. The plan calls for increasing micromobility infrastructure, making it easier to get around without a car, as well as



incorporating green infrastructure into street designs to increase the city's resilience and ability to manage stormwater.

DTM drafted the Vision Zero Safety Action Plan, aiming to eliminate serious injuries and fatalities involving pedestrians or cyclists in car crashes. By making streets safer for pedestrians and cyclists, the initiative encourages residents to use alternative modes of transportation more frequently. The planning process' robust community involvement included over 1200 survey responses, 160 attendees for five walk audits and 10 public events. The final report is expected to be completed in late winter 2025.

As part of Vision Zero, the City reduced the citywide speed limit to 25 mph, recognizing that pedestrian-car crashes become significantly more fatal at higher speeds. DTM also piloted Worcester's first protected bike lane on Mill Street. This project reduced the roadway from two traffic lanes to one, relocating parking away from the curb to create a safe, protected space for cyclists.

These efforts—lowering the speed limit, introducing projects like the Mill Street bike lane, and implementing the Vision Zero initiative—enhance pedestrian and cyclist safety, fostering a more comfortable and accessible environment for non-car transportation in Worcester.

### **Striving Towards Zero Waste**

One of the top ten Green Worcester Plan early action recommendations is to develop a Zero Waste Master Plan for the City. DSR hired a consultant to lead the development of the plan, kicking off in December 2024, with anticipated completion in early 2026.

DSR developed new outreach initiatives including Trash Talk videos and the City's first comprehensive Trash and Recycling guide to be released in Winter 2025. In collaboration with DPW, Inspectional Services Department, and other stakeholders, DSR led community litter clean ups where dozens of volunteers collected over 170 bags of trash and over 120 bulk items.

### **Improving the Health and Safety of Our Residents**

Like many older, previously industrial cities, many facilities in Worcester are contaminated with legacy pollution. The City's Office of Economic Development (OED) manages a lead abatement program and a brownfield cleanup loan fund to mitigate two of these large historic issues. In 2024, the City de-leaded 42 residential housing units. The City also received 3.5 million dollars from the EPA for its brownfields clean-up fund.

Worcester partners with the community groups such as the Regional Environmental Council (REC), Worcester Food Policy Council, and the Worcester Regional Food Hub. Each organization is furthering our sustainable food systems. In 2024, the Regional Environmental Council (REC) helped operate over 70 community gardens and opened one new community garden at the Francis Perkins Library. The REC engaged 2,768 students for the 2023-2024 school year. They also grew their Early Childhood programming this year and worked with 1,346 children in early childhood classrooms.

### **Public Engagement, Outreach and Transparency**

Outreach and public engagement are key functions for DSR and transparency in our work is essential. DSR plays the lead role in Green Worcester's outreach strategy with monthly communication strategy meetings and reaches the public



through monthly newsletters, surveys, the Green Worcester Dashboard, social media posts, traditional news coverage, op-eds, and radio PSAs.

Last year DSR held numerous public presentations for diverse city stakeholders, such as the Elder Affairs Commission, Health Commission, Leadership Worcester, Blackstone Collaborative, Chamber of Commerce, higher educational institutions, the Worcester Business Improvement District, and many more. The City hosted its first Green Worcester Summit, themed “Building Resilience, Together,” which brought in over 100 attendees.

DSR reported to CDP (formerly the Carbon Disclosure Project) for the second time and increased our score from a B+ to an A-. The report helps the City track our sustainability actions and keep transparent annual reports of climate information.

## Planning for Success and Integration of Sustainability and Resilience Policies Citywide

DSR has set up regular interdepartmental working meetings with the Department of Public Works and Parks, the Department of Transportation and Mobility, and the Executive Office of Economic Development. These meetings provide the forum needed to collaborate on resilience related programs and projects.

Recently, the City completed the Now|Next Master Plan, the Urban Forest Master Plan and the Mobility Action Plan. All of these plans incorporate concepts and goals from the Green Worcester Plan, demonstrating the importance, longevity and endurance of these principles in all policies citywide.



Photo by Alexandra Ionescu, courtesy of the City of Worcester





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**LOOKING  
FORWARD**

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## The Department of Sustainability and Resilience's Priority Actions in 2025

Below is a list of DSR's priorities for the upcoming year, which will guide our work in strategic planning, grant applications, budget requests, and resource allocation decisions.

### Energy

- Launch the next generation *energy efficiency project for municipal facilities* using an energy savings performance contract; manage a contract for timely maintenance and repair of all municipally owned solar PV facilities.
- Pursue opportunities for deep-energy retrofit pilot(s) of the city's 2-6 family buildings (with a focus on the triple-deckers) related to improving energy efficiency, as well as increasing renewable energy and electrification projects; with the ultimate objective of determining the best long-term course of action for the city in supporting decarbonization of the building stock.
- Continue to implement and innovate the *Smart Energy Advice* program.
- Continue to *advance vehicle electrification* – through installing electric vehicle charging stations and promoting purchases of the electric vehicles for the City's municipal fleet.

### Mobility

- Following the Transportation and Mobility Action Plan completion, and in collaboration with internal and external partners, pursue funding to begin the *Green-Blue Mobility Network* design and then target a date and funding for implementation.

- Assist with implementation and communication related to the Endicott-Bigelow Street redesign project, planned to break ground in the Summer of 2025.

### Zero Waste

- Complete the development of the *Zero Waste Master Plan* which will set out the goals and priorities for implementation.
- Purchase, install and establish collection service for 150 new dual-stream (trash and recycling) bins on city streets, in collaboration with the DPW&P.
- Manage the *Clean Streets Collective* pilot to help address street litter.

### Resilience and Environment

- Implement a comprehensive Green Infrastructure Maintenance Plan for municipally-owned rain gardens; two Miyawaki Forests; pollinator gardens, and more.
- Pursue the next phase of the *Drainage and Green Infrastructure Master Plan* that will further the accuracy of the model and will help identify priorities for green and grey infrastructure improvements.
- Complete conceptual designs for one CoolPocket (a Community Resilience Space that reduces the impact of heat on residents) and seek funding for implementation.



- Invest in expanding the City's urban forest (aligned with the Urban Forest Master Plan goals) as a means of achieving numerous co-benefits, including such potential actions as additional Miyawaki forests plantings, establishing a tree nursery, partnering to establish a Worcester Tree Academy, and increasing the number of new street tree plantings.
- Complete the development of the *Watershed Management Plans* and plan implementation of the associated water quality improvement projects for the Lakes and Ponds Program. Worcester Tree Academy, and increasing the number of new street tree plantings.

### Policy / Planning / Workforce

- Support implementation of the Worcester Zoning Ordinance revision – a central recommendation in the Now|Next Master Plan - with the emphasis on sustainability, mobility, livability, health and equity in the built environment.
- Explore and pursue opportunities to integrate sustainability and resilience into the Worcester Public Schools' curriculum at all levels, taking advantage of the DSR's knowledge base and data.
- Explore and pursue opportunities for collaborating with the community partners for green job opportunities related to green infrastructure maintenance.



Photo by Alexandra Ionescu, courtesy of the City of Worcester





## Completed Green Worcester Plan Actions

Action	Progress
Include stormwater management improvements and benefits when developing an Urban Forestry Master Plan	Stormwater Management is listed as a major benefit of our Urban Forest in the Urban Forest Master Plan. It is estimated that 2.4 million gallons of stormwater are absorbed by the current tree canopy annually. The plan includes actions to enhance our urban forest and therefore continue to reduce the impact of stormwater runoff in the city. (Chapter 4, Action 4)
Make the reduction of greenhouse gas emissions an explicit goal of City of Worcester transportation planning	DTM, in collaboration with DSR, developed a Mobility Action Plan (pending Council endorsement in 2025), which includes numerous strategies for improving our City's mobility infrastructure while reducing transportation-related emissions. (Chapter VI, Action 2)
Require EV stations and EV-ready parking at all new 5-unit plus multifamily buildings with on-site parking	Effective July 2024, 20% of residential and business parking spaces associated with new construction are required to be wired for electric vehicle charging due to updated building code (Specialized Stretch Code). (Chapter III, Action 10)
Establish a Sustainable Transportation and Mobility planning body	The City created the Department of Transportation and Mobility (DTM) in July of 2022. DTM plans, coordinates, designs and implements transportation programs and projects that promote safe, equitable, connective, and sustainable mobility options. (Chapter VI, Action 1)
Support and advocate for an advanced State Energy Code	The City has adopted a high-efficiency energy building code, the Specialized Stretch Code, which went into effect on July 1, 2024. (Chapter V, Action 13)



Action	Progress
Join the Urban Sustainability Network (USDN)	DSR joined USDN in July 2022, and we have used the network for learning opportunities such as webinars, connecting with other municipal staff and posting our job openings. (Chapter II, Action 18)
Develop and implement a Sustainability and Resiliency Dashboard	DSR's dashboard ( <a href="https://green.worcesterma.gov">green.worcesterma.gov</a> ), launched in 2023, highlights the City's accomplishments and outlines how residents can help us meet our sustainability goals. It is updated on a regular basis. (Chapter II, Action 6)
Create a Green Worcester Fund	The City has a Carbon Mitigation Fund that provides modest funding to DSR, allowing them to partially fund their staff and pursue carbon mitigation projects. This account is funded, in large part, by selling virtual net metering credits associated with electricity produced by the City's Greenwood Street Solar Farm. (Chapter II, Action 4)
Create a Green Worcester Advisory Committee	The Green Worcester Advisory Committee, formed in March 2022, has seven members and meets 10 times annually. GWAC created two taskforces in 2024, one for Sustainability in Education and the other for Building Decarbonization. (Chapter II, Action 3)
Create a new Department of Sustainability	The Department of Sustainability and Resilience (DSR) was founded in July 2021. The department now has 10 permanent and 1 temporary staff member.



2.4 million gallons of stormwater absorbed by the tree canopy annually



20% of new parking must be EV-ready (effective July 2024)



Greenwood Street Solar Farm helping fund sustainability jobs



Sustainability Dashboard launched in 2023



GWAC meets 10x/year, with 2 task forces launched in 2024





Photo courtesy of Leo DaSilva



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# STATUS & PROGRESS

Photo courtesy of the City of Worcester





## Chapter II Stewardship, Transparency, and Accountability

Action	Status	Progress
1. New Department of Sustainability: Create a Department of Sustainability and Resilience within City government separate from a new Public Facilities Department (and retire the Energy and Asset Management Division).	Completed	The Department of Sustainability and Resilience (DSR) was founded in July 2021. The department now has 10 permanent and one temporary staff member.
2. Sustainability and resiliency codes and regulations: Ensure that the City provides sufficient enforcement, training, and knowledgeable staff to develop and implement sustainability and resiliency codes and regulations.	Ongoing	The City adopted a high-efficiency building energy code called the Specialized Stretch Code which went into effect on July 1, 2024. The Inspectional Services Department (ISD) hired two more inspectors to assist the department's existing inspectors with enforcing the new code.
3. Green Worcester Advisory Committee: Create a Green Worcester Advisory Committee made up of non-governmental stakeholders to serve as the forum for information exchange and to advise on the City's sustainability and resilience activities.	Completed	<p>The Green Worcester Advisory Committee, formed in March 2022, has seven members and meets 10 times annually.</p> <p>GWAC created two taskforces in 2024, one for Sustainability in Education and the other for Building Decarbonization.</p>



Action	Status	Progress
4. Green Worcester Fund: Create a Green Worcester Fund for the City's sustainability and resilience programs.	Completed	The City has a Carbon Mitigation Revolving Fund that provides modest funding to DSR, allowing them to partially fund their staff and pursue carbon mitigation projects. This account is funded, in large part, by selling virtual net metering credits associated with electricity produced by the City's Greenwood Street Solar Farm.
5. Sustainability Performance Outcomes for New Development.	Refocused	The City pivoted from developing our own performance metrics to pursuing and adopting the Massachusetts Specialized Stretch Code related to energy efficiency of buildings. Additionally, we anticipate that through the future zoning ordinance revisions (part of the Now Next Master Plan recommendations) – many other sustainability performance outcomes will be addressed.
6. Develop and Implement a Sustainability and Resiliency Dashboard.	Completed	DSR's dashboard ( <a href="https://green.worcesterma.gov">green.worcesterma.gov</a> ), launched in 2023, highlights the City's accomplishments and outlines how residents can help us meet our sustainability goals. It is updated on a regular basis.
7. Annual Progress Report: Prepare an annual public progress report.	Ongoing	The City is committed to updating this report annually.
8. Outreach Strategy: Implement a transparent Green Worcester outreach strategy to include traditional and new media and activities.	Ongoing	DSR has monthly communication strategy meetings and is reaching the public through monthly newsletters, surveys, the Green Worcester Dashboard, social media posts, short videos, and radio PSAs.





Action	Status	Progress
9. Data and Data-Driven Decisions: Work with the Office of Urban Innovation to develop relevant datasets to measure progress and make data-driven decisions about sustainability and resilience.	Refocused and Ongoing <sup>1</sup>	<p>DSR has an internal Energy Analyst; manages the Green Worcester Dashboard to better display our data; and regularly compiles data from other departments to keep better track of our energy and sustainability data for internal and external reporting and planning. DSR has worked with Department of Innovation and Technology over the past year to publish five story maps which tell the story of Worcester’s resilience projects through maps, images, and data.</p> <p>The City reported to CDP (formerly the “Carbon Disclosure Project”) for the second time, and increased our score from a B+ to an A-. The report helps the City track our sustainability actions and keep transparent annual reporting of climate information.</p> <p>DSR continues to collect data to monitor water quality at recreational lakes to support lake management and public health decisions.</p>
10. School Curriculum: Integrate sustainability and resilience into the curriculum at all levels in the Worcester Public Schools.	Ongoing	<p>DSR established a connection with the Worcester Public School’s Science and Engineering Curriculum Specialist and has met with an environmental group at Doherty high school to discuss sustainability and resilience in Worcester. In 2024, the GWAC created a Sustainability in Schools Task Force focused on this work and met with the WPS director of science curriculum and DSR staff to collaborate on the development of a 5-year plan for integrating sustainability into WPS curriculum.</p>

<sup>1</sup> The Office of Urban Innovation merged with Technical Services Department to become the Department of Innovation and Technology. Due to this merge, we refocused this action to be managed by DSR instead.



Action	Status	Progress
11. Promotion to Private Stakeholders: Publicize and promote the Green Worcester Plan to important city stakeholders and civic groups such as the large and small business community, realtors and developers, neighborhood associations, educational and medical institutions, faith communities, immigrant associations, and social services groups.	Ongoing	<p>DSR held numerous public presentations for diverse city stakeholders, such as the Elder Affairs Commission, Health Commission, Leadership Worcester, Blackstone Collaborative, Chamber of Commerce, higher educational institutions, and more.</p> <p>The Green Worcester Summit, held in May 2024, attracted many stakeholders to learn about the Green Worcester Plan with a focus on building resilience in the city.</p>
12. Business Committee: Encourage the Greater Worcester Chamber of Commerce to create a sustainability and resilience committee.	Refocused and Ongoing	DSR has a working relationship, through the exchange of knowledge and information, with the Chamber of Commerce on sustainability, energy, and zero waste related projects.
13. Worcester Civic Group on Sustainability and Resilience: Promote and help create a citywide sustainability/ resilience umbrella group or coordinating network to link existing organizations, provide public information and access to ongoing activities, and work with the City and other partners to achieve Green Worcester goals.	Not Started	



Action	Status	Progress
14. Collaboration with Educational Institutions: Promote continued collaboration with the City's educational institutions to achieve Green Worcester goals.	Ongoing	The City has long-standing successful collaborative relationships with several local higher educational institutions, including Clark University, Worcester Polytechnical Institute, Worcester State University, and Holy Cross; and continues to seek out connections with educators in Worcester's public schools.
15. Pilot "Sustainability District": Designate one or more pilot "Sustainability Districts" as areas to test, refine, and promote new sustainability and resilience efforts.	Not Started	
16. LEED <sup>2</sup> Certification: Consider seeking LEED certification as a sustainable community.	Refocused and Ongoing	The City investigated the LEED certification for sustainable communities and decided not to pursue due to cost. Instead, we are pursuing LEED certification for new municipal buildings, when possible.
17. Mayors' Covenant: Join the Global Covenant of Mayors for Climate and Energy.	Not Started	
18. Urban Sustainability Network: Join the Urban Sustainability Directors Network.	Completed	DSR joined in July 2022, and we have used the network for learning opportunities such as webinars, connecting with other municipal staff and posting our job openings.
19. Carbon Neutral Cities: Seek nomination for membership in the Carbon Neutral Cities Alliance.	Not Started	

<sup>2</sup> Leadership in Energy and Environmental Design



### Chapter III

## 100% Clean and Affordable Energy

Action	Status	Progress
1. Zero Emissions: Eliminate 100% of greenhouse gas (GHG) emissions citywide.	In Progress 9.5% of Goal	<p>The City adopted a high-efficiency energy building code, the Specialized Stretch Code, which went into effect on July 1, 2024, making us the first Gateway city in the state to do so. This new code is essentially a “net-zero ready” code and will bring us closer to net-zero emissions. It encourages the electrification of buildings by requiring mixed-fuel new construction to be pre-wired for electrification and to install solar PV on a state-determined formula basis.</p> <p>The Green Worcester ElectriCITY Aggregation Program offers participating residents and businesses cleaner electricity, providing <b>64% renewable energy</b>—40% premium renewable electricity in addition to the state-required 24%. This program is not automatic; customers must be enrolled. Under the current contract (December 2023–December 2025), it continues to help reduce Worcester’s carbon footprint. Since its launch in 2019, the program has prevented the release of over <b>210 million pounds of carbon dioxide</b>, making it the city’s most significant effort to cut greenhouse gas emissions.</p> <p>The City launched its Smart Energy Advice program in late 2023. The program aims to support residents and business owners in making energy efficiency building upgrades related to insulation, heating and cooling systems, and navigation through the Mass Save program. Since the launch of the program, we have assisted more than 150 low- and moderate-income residents, sent 9,000 postcards and 4,500 letters to local businesses, and 44,000 letters to property owners, and presented or participated in over 30 community events.</p> <p>The City recently completed an updated Greenhouse Gas Emission Inventory, comparing the progress from 2009-2023. The inventory found there was a 9.5% decrease in citywide GHG emissions since 2009. We plan to conduct inventories on a regular basis going forward.</p> <p>See Action 4 below for details on our municipal operations.</p>





Action	Status	Progress
2. Community Choice Program: Achieve 100% renewable electricity sources by 2035 via aggregation.	In Progress 64% of Goal	See Chapter III, Action 1, above.
3. Carbon Neutral Cities Alliance: Seek nomination for membership.	Not Started	
4. Net Zero City Operations: Aim to make city facilities and operations net zero by 2030, including the City’s vehicle fleet.	In Progress 18.6% of Goal	<p>The City has reduced its municipal emissions by 18.6% since 2009, primarily due to energy-efficiency investments in municipal buildings. These efforts are a result of an Energy Savings Performance Contract (ESPC) in which the city implemented hundreds of energy efficiency upgrades such as LED lighting installations, new HVAC systems, and solar panels. Collectively, these upgrades are expected to save the City over \$71 million and prevent the release of 217,293 metric tons of CO<sub>2</sub> equivalent (MTCO<sub>2</sub>e) into the atmosphere.</p> <p>The City’s first multi-year Energy Performance Savings Contract (ESPC) concluded in 2024. Preparations for a second ESPC are underway, which will reassess the efficiency of all municipal buildings and help prioritize additional upgrades.</p> <p>In 2023, DSR launched an innovative project at Frances Perkins Library to retrofit a historic building to be net-zero. This complex, multi-year project has made significant progress with anticipated completion in 2025.</p> <p>For more information about the City’s fleet-related actions, see Chapter VI, Action 6.</p>



Action	Status	Progress
5. Flexible Commutes for City Employees: Develop commuting and/or work at home programs for City employees to cut emissions.	Ongoing	The City has a telework policy that went into effect in 2020. The policy provides employees with a more flexible workplace and the opportunity to work remotely. In 2024, the Department of Innovation and Technology rolled out the “Work From Anywhere” initiative that provided employees with secure laptops that more safely and easily enabled remote working. While not the primary goal of this program, the co-benefit of it is that it also reduces transportation related GHG emissions.
6. Identify opportunities for innovative energy pilot projects.	Ongoing	The City, working closely with local neighborhood groups, requested that Eversource select Worcester to be part of the geothermal networked neighborhood pilot project but our efforts were not successful. We continue to look for similar opportunities.
7. Building Disclosure Policy: Adopt a building performance disclosure policy for non-residential buildings.	Not Started	
8. PACE Program: Opt into the proposed Massachusetts PACE (Property Assessed Clean Energy) program.	Not Started	
9. Public EV Charging: Establish EV charging stations in all City-owned parking areas with 20 or more parking spaces.	In Progress 33% of Goal	In 2023, the City installed three dual-port electric vehicle charging stations in each of the three municipally owned public garages (Pearl Elm, Worcester Common, and Federal Plaza) for a total of eighteen new ports. In 2024, the City did a lot of work to prepare for the early 2025 installation of more EVCS in municipal lots.





Action	Status	Progress
10. Multifamily EV charging: Require EV stations and EV-ready parking at all new 5-unit plus multifamily buildings with on-site parking.	Completed	Effective July 2024, 20% of residential and business parking spaces associated with new construction are required to be wired for electric vehicle charging due to updated building code (Specialized Stretch Code).
11. Solar Zoning Ordinance: Develop and adopt a solar zoning ordinance with clear standards for siting solar farms and solar installations (residential and commercial).	Not Started	
12. Solar Map Tool: Work with educational institutions to create a solar map tool with information on solar opportunities in Worcester, including information on utility poles, roof material, and so on.	Not Started	
13. Regional Electricity Aggregation: Work towards becoming a Level II Aggregator.	Not Started	
14. Energy Ownership Models: Support efforts to diversify energy ownership models.	Not Started	



## Chapter IV

# Blue Spaces with Healthy Natural Systems

Action	Status	Progress
1. Open Space and Recreation Plan: Continue to update and implement the City's Open Space and Recreation Plan as required to ensure City eligibility for state funding.	Ongoing	The City updates their Open Space Recreation Plan every seven years. Our most recent update was in 2021.
2. Join the City Parks Alliance.	Not Started	
3. Urban Core and Green Spaces: Make new green spaces, street trees, sidewalk planters, and street landscaping in the urban core of the City a high priority (in the Open Space and Recreation Plan and other municipal plans) to reduce the urban heat island effect and help manage stormwater.	Ongoing	<p>The City developed a plan to re-design Endicott and Bigelow Streets in the Green Island Neighborhood as a "Green/Complete Street" with construction anticipated to begin in 2025.</p> <p>In 2024, the City planted two Miyawaki Forests (small, fast-growing biologically diverse forests) at McGrath Parking Lot adjacent to the Library and the other at Plumley Village apartment complex, both located in environmental justice areas of the city.</p>
4. GreenStreets Routes: Designate "GreenStreets" routes for neighborhood access to parks to implement improvements that enhance safe and comfortable walking and biking and prioritize these routes for shade by planting trees.	In Progress	The City is in the process of implementing its first GreenStreets project along Endicott and Bigelow streets by Crompton Park. The project will create biking infrastructure and include upgrades to sidewalks and crosswalks. Additionally, the city will plant 23 additional trees.





Action	Status	Progress
5. Cluster Subdivision: Revise the Cluster Subdivision zoning provision to allow by-right development using zoning consistent with the principles of the State's Model Open Space Design/ Natural Resources Protection Zoning.	Not Started	
6. Urban Forestry: Develop and implement an Urban Forest Master Plan.	Ongoing	The City's Parks Division and Urban Forestry Tree Commission finished the City's first Urban Forest Master Plan. Implementation is ongoing.
7. Tree Standards: Establish development standards for tree retention, replacement and planting for private projects that meet size thresholds.	In Progress	The Urban Forest Master Plan includes a goal of establishing tree planting requirements for development projects, including bolstering requirements for tree planting in and around parking lots. This marks the first step in implementing this action.
8. Habitat Lands: Continue management of Worcester's water supply open space lands (located outside city limits) as high-quality environmental systems.	Ongoing	The City's Department of Public Works and Parks (DPW&P) manages the City's 10 drinking water reservoirs, delivering 8 billion gallons of safe drinking water annually.



Action	Status	Progress
9. Lakes & Ponds Program: Continue the program to improve water quality and expand it to additional surface water features.	Ongoing (2024 Priority Action)	The Lakes and Ponds Program collected comprehensive water quality data at four waterbodies on 58 sampling days and leveraged a partnership with Worcester State University to collect data on an additional 16 sampling days at two additional waterbodies. Monitoring data are used by staff to inform management decisions around mitigating threats from cyanobacteria and invasive species in addition to long-term planning for holistic water quality improvements. Program staff also expanded monitoring of three park ponds in Worcester, streamlining management and reducing dependence on outside contractors. The program also trained and led over 30 community scientists to monitor cyanobacteria at over 20 waterbodies on 12 sampling days in 2024. This effort supported decision making for managing cyanobacteria and preventing harmful blooms. Additionally, program staff hosted and supported 5 volunteer invasive species removal events, gave 5 presentations to school groups, and hosted 3 public presentations.



Photo courtesy of the City of Worcester



Action	Status	Progress
10. High Performance Private Landscapes: Raise public awareness about beneficial stormwater best management practices for drainage areas of lakes and ponds, such as permeable pavement, rain gardens, rain barrels, and lawn buffers at stream and pond shores.	Ongoing	<p>The City has distributed 188 rain barrels since 2021. The Lakes and Ponds Program initiated a project in partnership with local watershed associations to raise public awareness of residential stormwater best management. This project aims to encourage residents to implement health landscape practices on their own properties.</p> <p>Additionally, the City hosted a sustainable yards initiative this Spring. Landscape design experts crafted conceptual sustainable yard plans for four resident properties, at no cost to them, to serve as case studies. These “Sustainable Yard Designs” feature elements such as rain gardens, re-routing roof gutters, reducing pavement, native plantings, pollinator gardens and more. The designs were showcased at the Green Worcester Summit, modelling how residents can implement stormwater best management practices on their own property. They are also available publicly on the city’s website as a resource.</p>
11. Upgrade Regulations: Complete and enforce any needed upgrades to regulations related to land disturbance and development that result in nonpoint pollution to streams, lakes, and ponds.	Not Started	





## Chapter V

# Net-Zero and Climate-Resilient Buildings

Action	Status	Progress
1. Sustainability of All City Building Systems: Continue to transition City-owned buildings away from dependence on fossil fuels and towards full electrification and renewable energy through establishing sustainability requirements and thresholds for all City buildings.	In Progress	<p>New municipal buildings need to be constructed to the standards set forth in the Specialized Stretch Code that went into effect in July 2024.</p> <p>The City is working to electrify its existing building stock and build more efficient buildings. The City opened the new Doherty High school which was built to be more energy efficient than any existing school building in Worcester.</p>
2. Municipal Strategic Building Energy Management Plan.	In Progress	<p>The Department of Public Facilities (DPF) was created in 2022 to oversee and manage most City facilities. DPF uses a real-time energy monitoring system to track the City facilities' energy usage. Over 2/3 of our buildings are part of the management system and more continue to be added.</p>
3. Fossil Fuels to Renewable Fuels: Develop a program to move all Worcester buildings from dependence on fossil fuels, including natural gas, to renewable energy sources.	In Progress (2024 Priority Action)	<p>The City adopted the Specialized Stretch Code, a high-efficiency building energy code effective July 1, 2024. Under this code, new buildings constructed after this date will have minimal or no fossil fuel use and will often include on-site renewables.</p> <p>The City launched its Smart Energy Advice program in late 2023. The program aims to help residents and business owners transition to make their buildings more efficient, upgrade their heating and cooling systems and navigate through the Mass Save program. Since the launch of the program, we have assisted more than 150 low- and moderate-income residents, sent 9,000 postcards to local businesses and 33,000 letters to property owners, and presented or participated in over 30 community events.</p>



Action	Status	Progress
4. Mandatory Energy Efficiency in City-Funded programs.	Not Started	
5. Annual Energy Performance Data on Large Buildings: Require buildings that meet size thresholds to submit annual energy performance data by adopting a building performance disclosure policy.	Not Started	
6. Cool Roof Incentives: Establish an incentive program for “cool roofs” and “green roofs” to reduce air conditioning costs, the urban heat island effect, and, in the case of green roofs, help in stormwater management.	Not Started	



Photo courtesy of Leo DaSilva



Action	Status	Progress
7. Distributed Energy Systems: Promote solar installations, geothermal networks, and other distributed energy systems, working with the state, National Grid, and other stakeholders.	Not Started	
8. Sustainability Incentives for Private Buildings: Provide at least two incentives for private sector buildings that meet the standards of LEED <sup>3</sup> or an equivalent green building rating system.	Not Started	
9. Green Vocational Training: Establish training programs at the Worcester Technical High School for sustainable building systems and renewable energy.	Not Started	
10. Awards: Promote establishment of an annual award for green development projects, including retrofits.	Not Started	

<sup>3</sup> *Leadership in Energy and Environmental Design*





Action	Status	Progress
11. Code compliance: Enforce consistent compliance with current energy codes.	Ongoing	The Specialized Stretch Code increased energy efficiency requirements. The City's Inspectional Services Department (ISD) recently hired two new inspectors to help enforce the new code. Inspectors are receiving training on the new updated codes.
12. Home MPG <sup>4</sup> Rating: Advocate for passage of state legislative proposals to require an energy assessment label (at time of sale) for single family, 1-4 family, and condominium homes.	Not Started	
13. State Energy Code: Continue to support and advocate for advanced state energy code regulations, such as a net zero energy code.	Completed	The City has adopted a high-efficiency energy building code, the Specialized Stretch Code, which went into effect on July 1, 2024.
14. Land Use and Zoning: Use the comprehensive plan and zoning ordinance to support initiatives and regulations that promote reduced GHG emissions in housing and non-residential buildings.	Ongoing	DSR is a collaborative partner in the Division of Planning and Regulatory Services (DPRS) work on the City's Now Next Master Plan. DSR will continue to work together with DPRS to implement the plan's high priority actions, especially related to updating zoning ordinance to promote the goals of the GWP.

<sup>4</sup> Miles Per Gallon



Action	Status	Progress
15. Sustainable Reuse of Underutilized Properties.	In Progress	The Now Next Master Plan created the starting point for developing updated zoning and development standards for underutilized properties.



Photo courtesy of the City of Worcester



## Chapter VI

# Sustainable Transportation Choices

Action	Status	Progress
1. Sustainable Transportation and Mobility: Establish a sustainable transportation and mobility policy and planning section within the Department of Sustainability.	Refocused and Completed	The City established a new Department of Transportation and Mobility (DTM) in July of 2022. DTM plans, coordinates, designs, and implements transportation programs and projects that promote safe, equitable, connective, and sustainable mobility options.
2. Transportation Emissions Reductions: Make the reduction of greenhouse gas emissions an explicit goal of City of Worcester transportation planning.	Completed	The Department of Transportation and Mobility, in collaboration with DSR, developed a Mobility Action Plan (pending Council endorsement in 2025), which includes numerous strategies for improving our City's mobility infrastructure while reducing transportation-related emissions.
3. Connectivity: Make connected networks an explicit goal of City of Worcester transportation planning. Maximize connectivity to move people – not just vehicles – between destinations.	Ongoing	The Department of Transportation and Mobility, in collaboration with DSR, completed a Mobility Action Plan in 2024 which includes a map of connected networks.
4. Event Transportation: Promote sustainable transportation choices at high profile locations and events, such as Polar Park and DCU events.	Not started	
5. Idling Reduction: Enforce the Massachusetts Anti-Idling Law (Chapter 90, Sec. 16A).	Not Started	





Action	Status	Progress
6. Electric Vehicle Use: Promote the use of electric vehicles in Worcester.	Ongoing	<p>School Buses: In 2024, WPS purchased 15 electric school buses with grant support from the federal Environmental Protection Agency (EPA). The buses are expected to be online in 2026 after the Transportation Yard builds out electric vehicle charging stations and related infrastructure.</p> <p>City Fleet: In 2024, the City completed a feasibility study for installing EVCS at six municipal parking lots for its municipal fleet. The City currently has three EVs and is actively working to increase its stock of EVs.</p> <p>Residential EVCS: The City continues to push for increasing EVCS for residential use. There are currently 30 publicly owned charging stations in Worcester and we are currently in the planning phase for new EVCS at McGrath Parking Lot.</p>
7. WRTA Fleet: Transition the WRTA bus fleet to 100% electric buses by 2035.	In Progress	The WRTA purchased seven electric buses in Spring of 2023. These buses are expected to be received and incorporated into service in Fall of 2025.
8. Transit Demand: Work with large employers to identify transit demand and priority routes for their employees, and seek funding for solutions to reduce single occupancy vehicle use.	Not Started	



Action	Status	Progress
9. Consultation with the WRTA: Include the WRTA in the Transportation Advisory Group and consult the WRTA from the beginning in City transportation, street redesign and resurfacing projects.	Not Started	
10. WRTA Service Optimization: Review WRTA service and make changes as needed to promote higher ridership while balancing coverage and social service responsibilities.	Ongoing	Worcester Regional Transit Authority temporarily eliminated fares to promote ridership and increase route efficiency. Collecting fares slows service and creates inefficiency costs. The Mobility Action Plan includes plans for pedestrian improvements to support transit stops.



Photo courtesy of the City of Worcester



Action	Status	Progress
11. Transit to Serve Higher Education: Work with higher education employers, institutions, and student populations to identify transit demand and priority routes and seek funding.	Not Started	
12. Complete Streets Policy: Implement the policy by developing a priority plan for designing roadway space for all users.	Ongoing	The Complete Streets Prioritization Plan, approved by MassDOT in Spring 2023, outlines the community's current and near-term needs. With the plan's approval, the city secured \$498,981 in grant funding for a 0.7-mile project on Country Club Blvd, near Lincoln Village, a senior low-income housing complex. Improvements include new bus shelters, safer crosswalks, restriping, roadway rightsizing, bike lanes, and more.
13. Micromobility Plan: Develop and Implement a Pedestrian, Bicycle, and Micromobility Plan.	In Progress	<p>Pedestrian, Bicycle, and Micromobility is a large focus in the Mobility Action Plan. In 2024, a demonstration project displaying traffic calming measures on 1.5 mile stretch of Mill Street was installed and includes protected bicycle lanes and lane reductions.</p> <p>In February 2024, the Department of Transportation and Mobility, kicked off the Vision Zero planning process, an international street safety movement dedicated to eliminating fatalities and serious injuries on our roadways.</p>





Action	Status	Progress
14. Bike and Micromobility Share: Find a reliable partner to create a new city micromobility share program for bicycles, scooters, and similar light-weight transportation.	Not Started	
15. Open Streets Program: Create an “Open Streets” program to close a set of downtown or other suitable streets on Sunday mornings, monthly or weekly, or as one-off events, for biking and walking.	Not Started	
16. Energy-efficient Truck Routes: Study and revise, as needed, the truck routes for city-owned or city-contracted trucks, to enhance energy efficiency and reduce GHG emissions.	Not Started	
17. Mitigate Truck Route Impacts: Develop, implement and enforce a truck route plan that avoids negative impacts on residential and commercial areas.	Not Started	
18. Truck Idling: Work with the Port of Worcester and CSX to reduce or eliminate idling at their yards.	Not Started	



Action	Status	Progress
19. Last Mile Freight Delivery: Work with businesses for opportunities to establish innovative “last mile” freight delivery options that reduce GHG emissions.	Not Started	
20. Coordinated Land Use Decisions: Use the comprehensive plan and zoning ordinance to support multi-modal transportation, especially walking, bicycling, and transit.	Not Started	
21. Zero-Emission Urban Villages: Use the comprehensive plan and zoning ordinance to support existing and future mixed-use, higher-density neighborhood “urban village” centers that support zero-emissions pedestrian, bicycle, and other micromobility transportation.	Not Started	



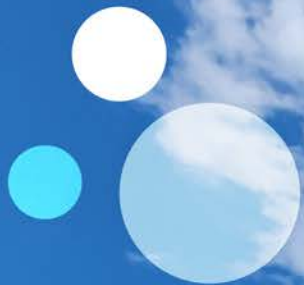


Photo courtesy of the City of Worcester



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## Chapter VII

# One Water – Integrated Water Management

Action	Status	Progress
1. Sustainability and Resilience Benefits: Prioritize sustainability and resilience benefits when implementing the Integrated Water Management Plan.	Not Started	
2. System-wide Stormwater Model: Create a comprehensive system-wide stormwater hydraulic/hydrologic model to help the City to better understand the drainage infrastructure and inform capital improvement priorities (to address flood resiliency).	In Progress	The City will complete its comprehensive Drainage and Green Infrastructure Master Plan by the end of February 2025, supported in part by a \$1.2 million state grant. This innovative plan includes a detailed hydrological model of the City's drainage infrastructure, pinpointing major problem areas. It also outlines some green and grey infrastructure projects in priority areas that will help mitigate the impacts of extreme storms and enhance community resilience.
3. Watershed Model for Water Supply: Create a comprehensive system-wide watershed model of the water supply reservoir network (to address drought resiliency).	Not Started	
4. Urban Forestry and Stormwater: Include stormwater management improvements and benefits when developing an Urban Forestry Master Plan.	Completed	Stormwater Management is listed as a major benefit of our Urban Forest in the Urban Forest Master Plan. It is estimated that 2.4 million gallons of stormwater are absorbed by our current tree canopy annually. The plan includes actions to enhance our urban forest, and therefore continue to reduce the impact of stormwater runoff in the city.



Action	Status	Progress
5. Low Impact Development Standards: Establish regulations and guidelines to require standards on Low Impact Development, stormwater runoff reduction, and green infrastructure in new development and in significant additions and renovations.	Not Started	
6. Stormwater Utility: Explore creating a stormwater utility to incentivize use of best management practices on private property.	Not Started	
7. Landscape Practices: Use Integrated Pest Management and organic landscape practices in managing city-owned property to reduce stormwater impacts of fertilizer, herbicides, and pesticides on surface waters.	In Progress	The City has begun creating a Watershed Based Plan which will include a city-wide assessment of non-point pollution sources – such as fertilizers, herbicides, and pesticides. The assessment will highlight what fertilizers the municipality is using on its properties. This will inform our DPW&P staff on how to improve their landscaping practices.



Action	Status	Progress
8. City Green Infrastructure: Identify and implement opportunities for green infrastructure in City facilities and landscapes.	Ongoing	<p>The City's nearly finished Drainage and Green Infrastructure Master Plan identifies high impact opportunities for green infrastructure (GI) installations in the city that significantly reduce stormwater runoff.</p> <p>The City has increased its focus on maintaining previously installed GI projects to ensure their long-term effectiveness. As part of this effort, the City created a detailed GI Assets Inventory, documenting all completed GI projects. Additionally, the City is preparing to develop a comprehensive GI Maintenance Plan.</p> <p>In the summer of 2024, the City revitalized the rain garden at the Senior Center, restoring its ability to efficiently capture and infiltrate stormwater runoff. These initiatives reflect the City's commitment to sustaining and enhancing its green infrastructure investments.</p>
9. Private Green Infrastructure: Promote green infrastructure practices to manage stormwater in private development.	In Progress	<p>The City hosted a sustainable yards initiative in Spring 2024. Landscape design experts crafted conceptual sustainable yard plans for four resident properties, at no cost to them, to serve as case studies. These "Sustainable Yard Designs" feature elements such as rain gardens, re-routing roof gutters, reducing pavement, native plantings, pollinator gardens and more. The designs were showcased at the Green Worcester Summit, modelling how residents can implement stormwater best management practices on their own property.</p>





Action	Status	Progress
10. Prepare Streams for Climate Change Impacts: Map currently culverted streams and study the potential for daylighting and green infrastructure.	Not Started	
11. Workforce Development for Green Infrastructure: Develop youth workforce development program for maintenance of green infrastructure projects like rain gardens, bioswales, and bioretention areas.	Not Started	
12. Landscape Practices: Promote sustainable landscape practices for private property that eliminate or minimize excess fertilizer, herbicide, and pesticide use to private property owners and landscaping contractors.	In Progress	The City is creating a Watershed Based Plan which will include a city-wide assessment of non-point pollution sources – such as fertilizers, herbicides, and pesticides. Our assessment will inform a public outreach campaign educating residents on ways to minimize harmful fertilizer use.



Action	Status	Progress
13. Lakes & Ponds Program: Continue and expand the Lakes & Ponds program and coordinate with initiatives to reduce nonpoint source pollution to lakes, ponds, and streams.	Ongoing	<p>In 2023, the Lakes and Ponds Program installed an “Alum” dosing station at Indian Lake to reduce nonpoint source pollution entering the lake. In 2024, testing was conducted to determine the optimal dosing level to achieve maximum nutrient removal with minimal application.</p> <p>In collaboration with DPW&amp;P, the Lakes and Ponds Program contracted the installation of four stormwater particle separators to reduce nonpoint source pollution in two watersheds. Particle separators are machines installed in the stormwater system which trap and remove nutrient-full sediment from stormwater before it goes into our waterbodies. The retained sediment is removed from the separator through periodic maintenance.</p> <p>Additionally, staff regularly attended meetings of local watershed associations to provide input and coordinate additional outreach and education activities.</p>



## Chapter VIII Towards Zero Waste

Action	Status	Progress
1. Waste Management Master Plan: Develop and Implement a Zero Waste Master Plan.	In Progress	<p>The City has hired consultants to help us develop the Zero Waste Master Plan and conduct a waste characterization study.</p> <p>While the plan is being developed, the City has begun robust outreach campaigns to teach residents how to reduce their waste and recycle better. The City published seven 'Trash Talk' videos which answer resident FAQs. The City has also developed the City's first comprehensive Trash and Recycling Guide, which is expected to launch in January of 2025. The City has also translated its recycling guides on its website into multiple languages. The City regularly tabled at public events to provide resources about disposal options. Recycling contamination rates for 1-6 dwelling unit buildings have decreased from over 20% in 2022 to 8% in 2024.</p>
2. Trash and Recycling Receptacles: Increase the number of and place trash and recycling receptacles strategically in public places.	In Progress	<p>Public Trash Bins: DSR, in partnership with DPW&amp;P, has begun developing a plan for installing public waste bins throughout the city. The City has secured funding to install 150-200 new trash bins in 2025. DSR has mapped the trash bins that currently exist in the city, and launched a Crowdsourcing map to gather feedback from the public on where new bins should be installed.</p> <p>Public Clean-Up Initiatives: This year, the City organized five "Clean Team" events, where community volunteers gathered to remove litter from designated areas. Over the course of these events, volunteers collected 171 bags of trash and 123 bulk items.</p>





Action	Status	Progress
3. Purchasing Policies: Establish environmentally conscious purchasing policies aimed at reducing waste and toxic materials and promoting use of recyclable materials.	Not Started	
4. Composting: Expand and initiate programs to divert waste to compost.	In Progress	<p>The Green Worcester Summit, hosted in April, was the City's first zero waste event. All food scraps and cutlery were composted, and food leftovers were donated to local shelters. Additionally, the Zero Waste Coordinator has worked with the Business Improvement District to make Out-to-Lunch and Movies on the Common Events low waste events.</p> <p>The City is exploring additional opportunities for food waste reduction citywide which will be a major component of the Zero Waste Master Plan.</p>
5. Food Waste Elimination: Promote food waste elimination initiatives by WPS, institutions, and businesses and reduce use of disposable food service ware.	In Progress	<p>DSR is building connections with Worcester Public Schools staff and hopes to outline the school's food waste elimination plan in the future Zero Waste Master Plan. Our Zero Waste Coordinator has regularly attended the Massachusetts Green School Waste Reduction and Diversion meetings and is currently a member of the policy subgroup.</p>
6. Reuse Initiatives: Work with community organizations and City departments to organize Swap Shops, Fix It clinics, and similar initiatives.	In Progress	<p>The Worcester Public Library has a "Library of Things" which allows patrons to borrow items such as a home electronics, musical instruments, tools and more.</p>



## Chapter IX Sustainable Food Systems

Action	Status	Progress
1. Existing sites: Protect access to land of existing community gardens and urban farms.	Not Started	
2. New urban agriculture sites: Identify additional locations for community gardens and larger-scale production.	Ongoing	In 2024, the Regional Environmental Council (REC) opened one new community garden at the Francis Perkins Library and helped manage and operate over 70 existing community gardens.
3. Community orchards: Identify potential locations for community orchards in selected public spaces or edges of community gardens.	Not Started	
4. Farm to School: Continue and expand the Farm to School program for WPS, working with the Worcester Food Hub.	Ongoing	Worcester Head Start is participating in the Farm to School Program.
5. Gardens in Schools: Integrate school gardens and garden curricula in the Worcester Public Schools.	Ongoing	The REC engaged 2,768 students for the 2023-2024 school year. They also grew their Early Childhood programming this year and worked with 1,346 children in early childhood classrooms.
6. Local food sourcing: Promote local food sourcing by all institutions.	Not Started	



Action	Status	Progress
7. Preferential Procurement: Adopt preferential procurement policies to source locally produced foods.	Not Started	
8. Resilient Regional System: Develop a plan to enhance the resilience of the regional food supply system.	Not Started	
9. Indoor Farming: Develop a pilot project with students to develop a sustainable return on investment analysis of indoor farming.	Not Started	



Photo by Alexandra Ionescu, courtesy of the City of Worcester





## Chapter X Pollution Prevention

Action	Status	Progress
1. Procurement Policies: Update the City's Environmentally Preferable Purchasing Policy.	Not Started	
2. Land Use and Transportation: Implement transportation and land use policies and actions to reduce greenhouse gas emissions and particulate matter.	In Progress	<p>Sustainability was identified as one of the four main goals of the Mobility Action Plan. The plan includes proposed actions that would reduce transportation related emissions.</p> <p>The City is working on initiatives to expand electric vehicle charging stations throughout the city to help promote the use of EVs.</p>
3. Toxic Materials Reduction: Encourage local businesses to adopt policies to avoid toxic materials in their operations and products.	Not Started	
4. Brownfields: Continue brownfields remediation programs and policies.	Ongoing	<p>Since May of 2023, the City has received \$3.5 million from the EPA for brownfield remediation. In 2024, the City gave a \$239,134 grant to the Main South CDC to remediate 807-815 Main Street; a \$580,000 grant and a \$1,108,832 loan to New Garden Park, Inc. to remediate 1 New Bond Street; and a \$1,300,000 loan to Creative Worcester, Inc. to remediate 2 Ionic Ave.</p>



Action	Status	Progress
5. Lead Abatement: Continue lead abatement programs, including regular public outreach to increase awareness of the programs.	Ongoing	The City's Office of Economic Development manages a lead abatement program. In 2024, the program de-lead 42 housing units.
6. Water Quality and Toxins: Continue and expand water quality programs and partnerships.	Ongoing	See Chapter VII, Action 13.



Photo courtesy of the City of Worcester



## Chapter XI Climate Change Resilience

Action	Status	Progress
1. Resilience Working Group: Create a climate change resilience working group of municipal staff to coordinate tasks and timelines for priority resilience actions from the MVP <sup>5</sup> , HMP <sup>6</sup> , and other relevant planning groups, such as the Planning and Public Health Departments.	Refocused and Ongoing	<p>DSR has set up regular interdepartmental meetings with the Department of Public Works and Parks, the Department of Transportation and Mobility, and the Executive Office of Economic Development. These meetings provide the forum needed to collaborate on resiliency related programs and projects.</p> <p>The Department of Emergency Communications is updating the Hazard Mitigation Plan, which will include various resilience actions and is being developed with input from a working group.</p>
2. Resilience Building Standards: Establish standards for climate resilience in new and rehabilitated buildings.	Ongoing	The City adopted the Specialized Stretch Code, effective July 2024, which will result in more efficient and well-built buildings that are by default more resilient.
3. Resilient Food System: Promote a robust and resilient regional food system.	Ongoing	The Regional Environmental Council has offered access to fresh local food through their standing and mobile farmer's market programs; supported 38 school gardens; engaged 2,768 students with hands-on gardening activities and classroom workshops; added one community garden to their network; and maintained their Healthy Incentives Program which allows residents to use SNAP and EBT benefits at Farmer's markets.
4a. MVP Priority Actions: Infrastructure Resilience.	Ongoing	See Chapter VII Actions 2, 3, and 8.

<sup>5</sup> *Municipal Vulnerability Preparedness* | <sup>6</sup> *Hazard Mitigation Plan*





Action	Status	Progress
4b. MVP Priority Actions: Social Resilience.	Ongoing	In May of 2024, The Department of Sustainability and Resilience hosted its first Green Worcester Summit. The Summit was the city's first zero waste event. More than one hundred residents came to the event, learning about resilience in Worcester and helping plant the city's first two Miyawaki Forests.
4c. MVP Priority Actions: Environmental Resilience.	Ongoing	<p>As part of the Urban Forest Master Plan, the city completed a street tree inventory. The inventory identified potential locations for new trees to be planted. With the completion of the UFMP, the City plans to ramp up the number of trees planted annually- increasing urban tree canopy.</p> <p>The Lakes and Ponds program continues to work to make the city's waterbodies cleaner. They collaborate with volunteers and universities to monitor water quality and provide treatment when needed.</p> <p>The City launched and managed two Crowdsourcing maps where residents can identify areas that would be great for resilience projects and another that lets residents mark where they prefer public trash and recycling bins to be located.</p> <p>For more information, see Chapter IV.</p>
5a. HMP Priority Actions: Transportation: Integrate disaster mitigation into transportation projects.	Not Started	



Action	Status	Progress
5b. HMP Priority Actions: Drought and Water Supply: Implement water supply emergency/drought projects.	Not Started	
5c. HMP Priority Actions: Public Information and Awareness: Improve information available and educate property owners.	Ongoing	As part of the Drainage and Green Infrastructure Master Plan, the City developed the Sustainable Yards initiative which in part educated homeowners on the stormwater benefits of resilient projects on their properties with specific Worcester case studies to refer to.
5d. Update the Zoning and Wetlands Protection Ordinances: Incorporate Low-Impact-Development and limit impervious surfaces.	Not Started	
5e. Best Management Standards: Create best management practices for land clearing and grading.	Not Started	



## Chapter XII

# Sustainability, Resilience, and Green Education in All Policies

Action	Status	Progress
1. Integrate Green Worcester goals and strategies into day-to-day planning.	Ongoing	The Executive Office of Economic Development coordinates pre-development discussions with developers. These discussions are designed to assist developers and landowners in the pre-development stages of potential and proposed projects with questions relating to permitting processes, zoning compliance, engineering standards and land use policy considerations. Sustainability related strategies are included in these meetings. The Division of Planning & Regulatory Services communicates closely with the DSR related to potential overlaps in land use regulations and opportunities to increase sustainability aspects of proposed developments.
2. Comprehensive Plan: Ensure that the City's new comprehensive plan is informed by the Green Worcester Plan and other relevant plans, as well as a robust community participation program.	Ongoing	The City recently completed its Now  Next Plan, Urban Forest Master Plan, Mobility Action Plan, and Municipal Strategic Plan. Each of these plans weave actions and concepts from the Green Worcester Plan into them – bringing sustainability into all elements of the city. DSR continues to help shape new city plans (currently a Hazard Mitigation Plan and Housing Production Plan) and will continue to advocate for including concepts of the Green Worcester Plans into future relevant plans.





Action	Status	Progress
3. Zoning and Development Standards: Ensure that changes to zoning and development standards resulting from the comprehensive plan advance achievement of Worcester’s sustainability and resilience goals.	In Progress	The Now Next Master Plan creates the starting point for developing updated zoning and development standards. The project overhauling the zoning ordinance has not yet launched and would be led by the Executive Office of Economic Development / Division of Planning and Regulatory Services.
4. Policy Development: Use the guidance of the Green Worcester Plan and other frameworks to develop transportation planning, design, and construction policies.	Ongoing	The Mobility Action Plan mirrors the GWP goals related to developing transportation planning, design, and construction policies.
5. Envision Rating System: Consider using the Envision™ infrastructure rating system to evaluate proposed infrastructure projects for high performance sustainability.	Not Started	
6. LEED Community: Consider seeking LEED certification as a sustainable community.	Refocused and Ongoing	See Chapter II, Action 16.
7. Pilot Sustainability District: Designate a pilot “Sustainability District” as an area to test, refine, and promote new sustainability and resilience efforts.	Not Started	



Action	Status	Progress
8. Sustainability Performance Outcomes: Establish sustainability performance outcomes to be met by all new construction or redevelopment projects seeking tax incentives from the City.	Refocused and In Progress	After research, it was apparent that developing a metric addressing a seemingly endless number of metrics for sustainability performance outcomes wasn't an efficient and effective approach. The city instead focused on pursuing and achieving a concrete and high-value opportunity to adopt a Specialized Stretch Code, which allowed for high performance building energy standards to guide new construction. The city will continue to look for examples of successful municipal approaches to advance this goal.
9. Place-Based Neighborhood Planning: Create and implement a program for place-based neighborhood or district planning with community participation.	In Progress	Place-based neighborhood planning is a key facet in the City's Now Next Master Plan.
10. School Curriculum: Integrate sustainability and resilience into the curriculum at all levels in the Worcester Public Schools.	Ongoing	See Chapter II, Action 10.
11. Workforce Development Partners: Convene a working group to develop a framework for a coordinated green jobs framework in Worcester.	Not Started	



Action	Status	Progress
12. Workforce Development for Green Infrastructure: Develop youth workforce development programs, like the park ranger program, for maintenance of green infrastructure projects.	In Progress	In late 2024, the Blackstone Watershed Collaborative, in partnership with the Worcester Technical High School (WTHS), Clark University, the City of Worcester, Mass Audubon and the Nipmuc Tribe, was awarded a 3-year grant from the US Forest Service to build an Urban Forestry Workforce Development program at WTHS.
13. Outreach Strategy: Implement a transparent Green Worcester outreach strategy to include traditional and new media and activities.	Ongoing	See Chapter II, Action 8.







# Acknowledgements

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Department of Inspectional Services

Department of Public Works and Parks

Department of Transportation and Mobility

Division of Planning and Regulatory Services

Executive Office of Economic Development

Worcester Public Library

Worcester Public Schools

Worcester Senior Center

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## External Partners

Regional Environmental Council

Higher Education Institutions (College of the Holy Cross,

Worcester Polytechnical Institute, Clark University,

Worcester State University)

Indian Lake Watershed Association

Lake Quinsigamond Commission

Lake Quinsigamond Water Association

Plumley Village

Tatnuck Brook Watershed Association

Worcester Native Plant Initiative

Worcester Regional Chamber of Commerce

Worcester Regional Transit Authority

WalkBike Worcester





Photo-courtesy of the City of Worcester



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WORCESTER





# The City of Worcester

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