



Committee Members

Mary Knittle, Chair
Evelyn Herwitz, Vice Chair
Patricia Austin
Ted Conna
Nathan Fournier
Mary Leovich
Deirdra Murphy

Contacting the Committee

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Department of Sustainability and Resilience

Our Mission:

To implement the ambitious and urgent goals of the Green Worcester Sustainability and Resilience Strategic Plan (GWP), a roadmap for making Worcester the greenest mid-size city in the country.

Our Staff:

John Odell, *Chief*
Jessica Davis, *Project Manager*
Robert DeFosse, *Energy Services Manager*
Gabi Hajos, *Energy Advocate*
Miranda Hotham, *Zero Waste Coordinator*
Katie Liming, *Lakes & Ponds Coordinator*
Amy Magiera, *Administrative Assistant*
Sarah Mount, *Energy Analyst*
Nick Pagan, *Senior Environmental Analyst*
Luba Zhaurova, *Director of Projects*

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Translations

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Avisanos por
greenworcester@worcesterma.gov

CITY OF WORCESTER

Meeting Minutes

Green Worcester Advisory Committee

Monday, January 8, 2024 at 5:30 p.m.
Location: Esther Howland, City Hall, 455 Main St.

Chair Knittle called the meeting to order at 5:35 pm.

Present

Mary Knittle, Chair
Evelyn Herwitz, Vice Chair
Patricia Austin
Ted Conna (virtual)
Mary Leovich (virtual)

Absent

Nathan Fournier
Deirdra Murphy

Staff

John Odell
Luba Zhaurova
Sarah Mount
Katie Liming

1. Welcome

- i. Chair Knittle read out the rules of meeting conduct.

2. Approval of Minutes – November 27, 2023 (Attachment A)

- i. Motion to approve November 27, 2023 minutes was made by Member Conna and seconded by Vice Chair Herwitz. Approved by the Committee. The minutes were approved 5-0.

3. DSR Major Projects' Status Updates

- a. Smart Energy Advice Program (CFP Grant)
 - i. DSR hired two part-time employees to work as Smart Energy Advocates with communities that have been underserved by MassSave. A mailing detailing the program was sent to approximately 33,000 property owners this fall and DSR may consider a spring mailing. Following the letter, Energy Advocates have received contact from over 375 interested residents who filled out an associated online form or called them directly. Of these contacts, 150 identified as low or moderate income, and 25 identified as English not being their primary language. One Energy Advocate left DSR so we

now only have one part-time Energy Advocate remaining. DSR is trying to shift that advocate to full time.

- ii. DSR's Energy Advocate will be at the Sustainability Hub, 912 Main Street near Clark University on January 23 from 10am - 3pm. She will be able to aid walk-in residents who have questions about MassSave and their electric bill.
- b. GHG Inventory (2020-2023) Launch
 - i. DSR entered a contract with Blue Strike Environmental to provide a Green House Gas Inventory for 2020-2023. The project is underway, and the plan is to finalize data by the end of March. Member Conna asked if the data can simply be plugged into a prior report template. Mr. Odell responded that it's not quite that simple, but the hope is that after this report is created it can be done in house using the consultant's template. If DSR can update the inventory internally the plan is to do so every year. If the department needs to hire a company to provide this service, the plan is to create a report every two years.
 - c. Fleet Electrification
 - i. Weston & Sampson evaluated sites for charging stations. DSR received their report which provides basic information regarding what can be acted on immediately, what can be implemented now with work later from National Grid, and what can't be implemented without initial work from National Grid. DSR hopes to identify locations by spring and start making upgrades by summer.
 - d. Miyawaki Forests and Cool Pockets (MVP Grant); Community Engagement
 - i. The work for the Municipal Vulnerability Preparedness Action Grant (MVP Grant) for Miyawaki Forests and Cool Pockets was contracted with BSC Group. DSR is in the process of selecting two municipal sites for Miyawaki Forests and will hire a community liaison to help select two sites in environmental justice heat vulnerable areas for Cool Pocket designs, which will be community gathering spaces geared toward resilience. The website content for this project went live today.
 - e. Drainage and Stormwater Master Plan (MVP Grant); Community Engagement
 - i. The project will ultimately create a Drainage Master Plan for most of the city by inventorying and modeling the City's stormwater system to see where the city will likely flood in large rain events. As the modelling portion of the grant ends, DSR is moving into the community engagement portion of the work. Results from the study will be presented at public meetings. There is also a plan to have public workshops which will provide potential flooding and green infrastructure information to residents that they can use to help manage water on their property and be part of the solution.
 - ii. Member Leovich asked what the deliverables will be from the consultants. Ms. Zhaurova said that there will be a GIS layer outlining the stormwater system and providing projections of flooding in 2070 if nothing changes. There will also be an identification of 6 focus areas most heavily affected by flooding factoring in vulnerable populations. Member Leovich followed up asking if there are cameo models or calculations available, along with any tangible tools that can be used by DPW. Mr. Odell replied that the scope of work was designed in collaboration with the DPW Water Division. They will receive information that is best suited for them He believes that they will receive models, information on catchment areas, and GIS information that should be sufficient for them to do planning and design work on the system going forward.

- iii. Member Austin asked how the plan fits with DPW stormwater planning. Mr. Odell replied that this work is a piece of the integrated water management plan. This subplan will help the City determine how to allocate limited resources most effectively.

- f. Lakes and Ponds Program
 - i. Ms. Liming introduced herself as the new Coordinator for Lakes and Ponds. Lakes and Ponds is considering using some of the ARPA funds to develop and implement watershed-based plans. She has been in contact with the watershed planning program at Mass DEP to gain additional background. She is working with the Water Department on this and hopes to implement many types of stormwater best management practices.
 - ii. The State of the Lakes Event will be held on Thursday, March 14 at 5:45pm. The location of the event is to be determined.
 - iii. The Worcester Cyanobacteria Monitoring Collaborative will hold a summit to go over data from their monitoring season on a to be determined date in the spring.
 - iv. Member Austin shared that the announcements for the 319 and 604b grants just came out and might be worth considering.

- g. Green Worcester Dashboard Blogs (*Attachment B and C*)
 - i. The dashboard launched in April 2023 and has been continually updated with data and blog posts. Chair Knittle asked if there's any data on how many people are looking at the dashboard. Mx. Mount responded that there are about 200 hits a month, mostly new people. Chair Knittle noted that the dashboard looks nice and is easy to navigate. She hopes that this continues to be an increasingly used for the community. Vice Chair Herwitz asked if the blogs being promoted through social media, and Mx. Mount responded that they are being promoted through social media.

4. Review and Discussion

- a. Green Worcester Plan First Annual Progress Report, July 2021 – December 2023 (*Attachment D*)
 - i. Member Conna introduced a statement he collaborated on with Vice Chair Herwitz (*Attachment F*) He asked GWAC to sign onto the statement and request that it be bound into the report along with the introduction from DSR. Vice Chair Herwitz read the statement. Chair Knittle requested that the Committee make a motion to accept the Green Worcester Plan (GWP) Annual Progress Report and include the statement introduced by Member Conna and Vice Chair Herwitz as an additional introductory letter from GWAC. Member Leovich made the motion, seconded by Vice Chair Herwitz, and it was approved by the Committee unanimously. Mr. Odell shared that the approved GWP Annual Progress report will be designed and then shared online.

- b. Worcester Now | Next – Scenario Planning and Recommendation Drafting; Feedback (*Attachment E*)
 - i. Ms. Zhaurova summarized that Now | Next is a comprehensive plan for the City that focuses on the physical environment and development. It shares the same values as the GWP but doesn't have the same actions and implementation goals. Member Austin would like to see more of the GWP incorporated in the Now | Next Plan. She is concerned that GWP isn't a priority in the plan. Mr. Odell responded that Now | Next is the overarching plan that incorporates all other City plans, including the GWP, to help inform it. Mr. Odell shared that he's confident that when the final plan is released it will include much of the GWP's values.
 - ii. Member Conna wondered if there's someone who reviews new department plans to make sure they're consistent with other plans. Mr. Odell replied that there is a process. It's not foolproof, but for all large plans other departments provide feedback. Major

conflicts are avoided because departments communicate with each other. Member Conna noted that the Urban Forestry Master Plan seems like an example of a plan that isn't consistent with GWP and wonders if that will be fixed. Mr. Odell couldn't speak to the specifics on that plan since DSR doesn't directly oversee it, but he shared that the hope is that we will be consistent at the end of the day. DSR has relayed concerns and hopefully they'll be incorporated in the final draft. This isn't foolproof and there will be times when plans don't seem completely aligned, but that is the exception rather than the rule.

- iii. GWAC members had additional questions about the Now | Next Plan including the source of demographic statistics, whether colleges and their building plans were considered in the plan, and if someone representing the plan would be able to come to a future GWAC meeting to answer questions. Mr. Odell replied that he couldn't respond to questions regarding statistics or community outreach and encouraged members to submit their questions through the Now | Next website and send them along to DSR to forward to the Economic Development Department. DSR will try to see if a representative from the Economic development could join a future GWAC meeting to answer questions, but due to tight schedules that might not be an option.

5. Standing Items

- a. Community Outreach
- b. Community Feedback
- c. Media
- d. Upcoming Events (not DSR organized)

The committee voted unanimously to adjourn the meeting at 6:57 pm.

Attachments

Attachment A: November 27, 2023 Meeting Minutes

Attachment B: Green Worcester Blog Post – Sustainable Holidays

Attachment C: Green Worcester Blog Post – Sustainable Resolutions

Attachment D: Green Worcester Plan First Annual Progress Report, July 2021 – December 2023

Attachment E: Worcester Now | Next

Attachment F: Green Worcester Advisory Committee Introductory Letter for Green Worcester Plan First Annual Progress Report

2024 Upcoming Meetings

Green Worcester Advisory Committee meetings begin on Mondays at 5:30pm:

February 5 - Levi Lincoln

March 11 - Levi Lincoln

April 8 - Esther Howland

May 13 - Levi Lincoln

June 10 - Esther Howland

July 15 - Esther Howland

September 9 - Esther Howland

October 21 - Esther Howland

November 18 - Esther Howland

Chair Knittle called the meeting to order at 5:38pm.

Present

Mary Knittle, Chair
Evelyn Herwitz, Vice Chair
Patricia Austin
Ted Conna
Nathan Fournier
Mary Leovich (virtual)
Deirdre Murphy (virtual)

Staff

John Odell
Luba Zhaurova
Sarah Mount

1. Welcome

- i. Chair Knittle read out the rules of meeting conduct.

2. Approval of Minutes – October 16, 2023 (*Attachment A*)

- a. Motion to approve October 16, 2023 Minutes made by Vice Chair Herwitz, seconded by Member Conna. Unanimously approved.

3. DSR Major Projects' Status Updates

- a. Smart Energy Advice Program Update (CFP Grant)
 - i. Outreach of about 30,000 letters mailed
 - ii. Expect to have more information at the next meeting
- b. Miyawaki Forests (MVP Grant)
 - i. The bid for the project closed and DSR received one bid from BSC Group. They were well qualified and have been selected for the project. DSR is currently going through the contracting stage. The department is moving quickly on this because the project must end by June 30, 2024.
- c. Drainage and Stormwater Master Plan update and new FloodWatch map (MVP Grant; worcesterma.gov/floodwatch; *Attachment B*)
 - i. The project will end by June 30, 2024. The modeling of the stormwater system is underway and will result in a projection to 2070. After the modeling is complete, the City will begin targeting improvements to the system. There will be a few public meetings to educate residents about flooding and what they can do to help mitigate issues. This project has been a collaboration between DSR and DPW.
- d. Lakes and Ponds Program

- i. Staff: New Lakes & Ponds Coordinator, Katie Liming. (Started 11/27)
 - ii. New Map - Lakes and Ponds Activities Guide - worcesterma.gov/bluespace (Attachment C). A new interactive Lakes & Ponds map is live at worcesterma.gov/bluespace displaying activities available for residents on Worcester's lakes. Member Leovich wondered if DSR has a hard copy that could be distributed to WPS. Unfortunately, due to the interactive nature the full map doesn't print well in handout size, but DSR can consider providing maps with information targeted to specific areas. DSR can also work with schools to print poster size maps to hang in schools. However, there is some functionality on the website that won't be possible in a printed version.
- e. CDP Reporting Score & Follow-Up (*Attachment D*)
- i. Worcester received an A- from the Carbon Disclosure Project (CDP), up from a B last year. This is due to actual improvement as well as more accurate data entry than the prior year. CDP started as a carbon counting nonprofit but has pivoted to be holistic in evaluating green corporations and cities expanding to consider adaptation and mitigation plans in their rating.

4. Review and Discussion

- a. Proposed Meeting Schedule 2024 (*Attachment E*)
 - i. The commission considered the proposed meeting schedule for 2024. Member Conna made a motion to approve the meeting schedule, seconded by Vice Chair Herwitz. Unanimously approved.
- b. Urban Forest Master Plan (2nd Draft) (November, 2023)
 - i. Vice Chair Herwitz spoke about the Urban Forest Master Plan. A draft was presented publicly at the last Urban Forestry Tree Commission meeting and the final draft will be considered at their upcoming December 6 meeting. Vice Chair Herwitz noted that the initial draft and final draft under consideration are largely the same document. Most feedback provided in April was not included. In particular, the ratio of trees cut to trees planted was kept at 1 to 1 and not increased. The tree canopy goal definition was pushed back to 2026 following another canopy study. Vice Chair Herwitz introduced a memo that she would like the committee to consider which calls on the Urban Forestry Tree Commission to edit the final document to include a 3 to 1 tree planting minimum and to shift the canopy goal definition to January 2025 at the latest.
 - ii. Members discussed their support of the statement and Member Conna noted his displeasure that the April input was not added into the plan. Member Leovich also felt that the City would not benefit from another canopy study but should consider zoning changes to increase tree planting on private property.
 - iii. Vice Chair Herwitz put forward a motion to adopt the statement from GWAC about the Urban Forest Master Plan as presented (*Attachment G*) and to send it to the

Urban Forestry Tree Commission and staff prior to their December 6 meeting. Member Fournier seconded the motion. Unanimously approved.

- c. Green Worcester Plan's First Progress Report (Draft), July 2021 – December 2023
(Attachment F)
- i. Vice Chair Herwitz thought that the report could still be improved to better express progress. She noted that there are some areas that need better progress metrics, with one example being charging station percentages.
 - ii. Member Conna appreciated the progress made so far and felt that the report does a good job of expressing that progress. However, he believed that the report fell short in pointing out where there are big hills to climb. He would like to focus on three benchmark goals: the 2030, 2035, and 2045 targets for renewable energy. The 2030 goal of net zero energy in municipal buildings is only 16% complete as noted in Chapter 3 section 4, but we only have 7 years left to reach the goal. Member Conna thought that we need to be more realistic about how we get there and that the City may need to authorize additional resources to complete this work.
 - iii. Member Conna confirmed with DSR staff that by 2035 the City goal is to offer 100% renewable electricity city wide and asked about how many residents are on the aggregation Plan. Mr. Odell noted that about 40,000 accounts are on the Standard Green plan, and only about 100 accounts on the 100% Green Aggregation. About 8-12% of the customer base has opted out of both aggregation options. If customers were using standard National Grid electricity they were automatically signed up for Standard Green; if they were using competitive suppliers they did not get opted into the aggregation program.
 - iv. Member Conna raised a concern about the goal on Page 10 of getting the entire City off fossil fuels for heating and transportation by 2045. On page 73, there's a benchmark of being 30% toward the goal by 2030. He didn't know how we could pull that off. Member Conna thought it would take more resources than what the city is currently giving to DSR. He felt that we need to be realistic and spell out what's needed to make this progress. Mr. Odell acknowledged the difficulties of reaching the goal. He stated that DSR can incorporate benchmark data for 2030 and 2035 but will also need Greenhouse Gas Emissions inventory data for more recent years (2020-2023), which it expects to get in the upcoming year.
 - v. Member Leovich asked how the plan considers heating plants at older buildings. Are we working to make the older heating plants more efficient? Mr. Odell noted that there are programs in place to make buildings more efficient and work on converting them from gas to electricity. The City is working on the efficiency of the building itself as well as the heating systems.

- vi. Chair Knittle spoke about how things are changing and that she believes this plan was implemented at a time when support continues to grow. The options for fossil fuel use will continue to decrease and hopefully that will increase the rate of adoption among residents.
- vii. Member Conna agreed and noted that he's counting on market forces to help carry this plan along. He wants to see Worcester ahead of the curve as a leader in this work.
- viii. Member Conna asked where Carbon Mitigation Revolving Fund (CMRF) money comes from and suggested that information be included in the document. Mr. Odell responded that most of the fund is net metering credits from the landfill solar array that are sold at a discount to the school department. Funds are used for salary and other small programs.
- ix. Member Conna requested that the school curriculum on page 6 be fleshed out a bit more. He also requested a better description of the map of connected networks mentioned on Page 7 within the connectivity section. Mr. Odell said that the department can look at expanding that information, but it's currently a work in progress. The project involves mapping the City in a way to connect green and blue spaces while promoting safety, sustainability, equity, and connectivity.
- x. Member Conna had some additional comments, including that on page 9 there are three concurrent phases and on page 13 there's a typo regarding achieving net zero by 2030. In the Action Steps, Action 5 on page 17 only mentions the specialized stretch code, but Member Conna thought the City ought to look for more from contractors than just the specialized stretch code. On page 23, the information about tree standards for private projects mentions the Urban Forest Master Plan, but Member Conna couldn't find that information in the plan. Mr. Odell will have DSR go through Urban Forest Master Plan again to confirm the information is accurate.
- xi. In Chapter 5 Action 1, the plan states "where feasible city will electrify buildings during renovation projects." Member Conna did not like the "where feasible" language.
- xii. Member Leovich noted that the report focuses on upgrading city building systems to electricity. She was not convinced that's the best approach because she doesn't think electrical systems are resilient due to the reliance on grid. Mr. Odell acknowledged her concern and noted that the City is trying to be thoughtful in the move from fossil fuels to electricity. Member Leovich asked if the City is considering microgrids for city owned buildings or campuses. Mr. Odell noted that the City has looked at that, but it's currently not cost efficient since most buildings are spread

out. However, National Grid will be reevaluating and making updates to their system at a cost of \$2 billion. This should make the grid more resilient.

- xiii. Member Conna asked if the integrated water management plan noted in Chapter 7 Action 1 exists. Mr. Odell replied that it does exist, but the specifics are still on hold as the City determines what to do first. This is something that needs to be looked at holistically and DSR is still waiting on results from MVP stormwater grant.
- xiv. Member Conna asked what green infrastructure means as it's reference on page 33. Mr. Odell replied that this is in reference to the MVP drainage master plan. After the drainage master plan results are known, the City will need to determine what green and gray infrastructure is needed to reduce flooding. Green infrastructure would be things like rain gardens, trees, natural stormwater solution, while gray infrastructure involves pipes and other hard infrastructure.
- xv. Member Conna suggested creating a tax incentive to promote the elimination of herbicide, pesticide, etc. noted on page 34. He also had questions about purchasing policies mentioned in the plan and would like to know if there's an existing policy that would apply. Mr. Odell noted that there is a purchasing policy in place but it hasn't been updated in a while. It's helpful but price is a major driver in the policy. There's not a lot of wiggle room to make changes due to state regulations. DSR would like to change this slightly and will look at policies to see if there are opportunities for an update.
- xvi. Member Fournier liked the focus on food agriculture and landscape care. He's excited about the Urban Agriculture Master Plan but thinks that the City can do more to move the plan forward. He thought we should be able to promote high performance landscapes and create an engaging marketing campaign to move the plan forward. Could the City subsidize raised garden beds, pamphlets, and seeds? He thought the Green Worcester Plan has a great balance of preventative measures but would also like to see it focus on how to protect ourselves. Food and energy are very important. He encouraged DSR to think about Miyawaki food forests, a City sponsored initiative to restore chestnut tree; a pilot to get neighborhoods sustainability growing food; an incentive for organically managed landscapes; chickens! He also noted that shifting to mini-splits to electrify a three family was unaffordable for him as a landlord, with each unit costing \$6k even with MassSave incentives. This raises a concern about whether the goal of electrifying the City can be met.
- xvii. The Members discussed whether they would approve the report with amendments made offline or if they would like to see the final product before approving. Following the discussion, Chair Knittle decided that any additional comments will be submitted by individual Members to DSR staff by December 15. She requested that

Members review the report ahead of the January 8 GWAC meeting and come prepared to vote on the report.

Motion to adjourn made by Vice Chair Herwitz and Seconded by Member Conna at 7:50pm.
Unanimously approved.

Sustainable Holidays

POSTED BY GREEN WORCESTER TEAM ON 12-13-2023



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The holiday season brings laughter and cheer but often brings an unfortunate side effect – tons of holiday waste. In the United States, the period between October to December is accompanied by a surge in discarded packaging, wrapping paper, food waste, and more.

An important goal of the Green Worcester Plan is to move our city towards zero waste. This blog post provides some background on holiday waste in the U.S., the principles of the circular economy, and practical tips on how to consume and shop sustainably this holiday season.

U.S. Holiday Waste: The Facts

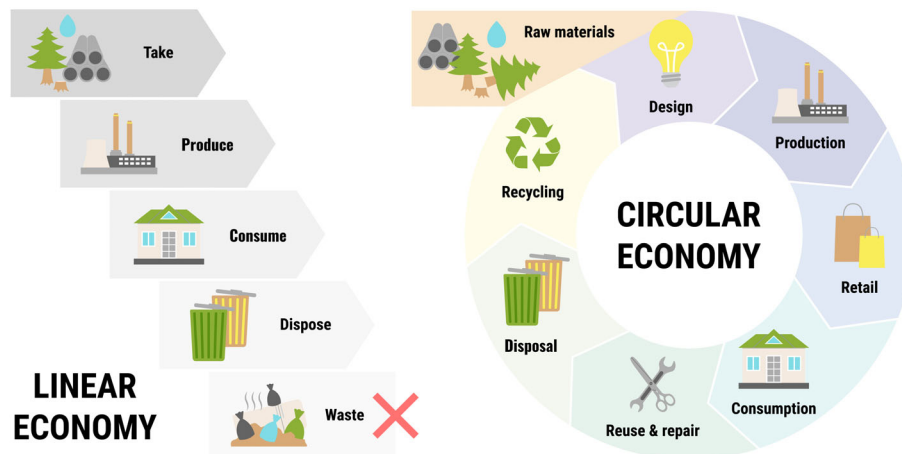


The holiday season in the United States is notorious for generating colossal amounts of waste. According to the Environmental Protection Agency (EPA), Americans generate an additional 25% more trash between Thanksgiving and New Year's Day compared to the rest of the year.* That is around 20 million extra pounds of waste per week during the holiday season. That'd be like throwing 6,000 Boeing 747 airplanes into a landfill every week!** The primary culprits include single-use wrapping paper, packaging, and food waste.

*U.S. Environmental Protection Agency: [Green Your Holiday Scene](https://archive.epa.gov), 2016 (archive.epa.gov)

**[Boeing 747 Specs: Weight, Length, Range, Wingspan & More](http://knaviation.net) (knaviation.net)

The Circular Economy Approach



The idea of zero waste is related to the broader concept of a “circular economy,” which goes beyond recycling to focus on preventing waste by redesigning products and supply chains and turning waste into resources that can be used again. In a linear economy, products are made, used, and disposed of, leading to excessive waste and resource depletion. However, in a circular economy, resources are kept in use for as long as possible, with the aim of maximizing their value and minimizing waste.

8 Tips to Consume Sustainably This Holiday Season



Try out these sustainable practices to apply a circular economy approach to your holiday season consumption:

1. **Eco-Friendly Gift Wrapping:** Opt for reusable options like fabric gift wraps, reusable gift bags or repurposing store paper bags and newspaper instead of using traditional wrapping paper that often can't be recycled due to its glossy finish or foil.
2. **Mindful Gifting:** Give gifts that matter. Consider experiences, charitable donations, or homemade gifts. Support local artisans and businesses for unique, sustainable options.
3. **Reduce Packaging Waste:** When shopping online, choose retailers who use minimal and eco-friendly packaging. Opt for consolidated shipping, which reduces the number of boxes and packing materials used.
4. **Zero-Waste Decorations:** Decorate your home with reusable decorations like wooden ornaments or fabric garlands. You can get crafty and make your own holiday decorations from recycled materials or natural elements like pinecones and twigs. Avoid plastic or disposable decorations that will end up in a landfill.
5. **Holiday Leftovers:** Rather than throwing away leftovers, get creative with recipes. Transform turkey into sandwiches, soups, or casseroles. Compost food scraps or donate food to local farms or pantries.
6. **Recycle Right:** Know your local recycling guidelines and make sure you're recycling correctly. Many holiday items like cardboard boxes, glass bottles, and aluminum cans are recyclable, but items like plastic bags, plastic films, and wrapping paper are not. Use our [Recyclopedia](#) to learn what does and does not belong in curbside recycling bin.
7. **Donate Unused Items:** After the holidays, consider donating clothes, toys, or other items you no longer need. Giving to those in need or local charities reduces waste and supports the community. The City has also partnered with Helpsy who does free at-home pickups for clothing and other textiles. Learn more here: [Clothing Pickup \(worchesterma.gov\)](#).
8. **Buy Locally:** Support local businesses when shopping for holiday essentials. It reduces the carbon footprint associated with transportation and helps the local economy.

By adopting these practices, you can make a significant impact on reducing holiday waste this season! Make sure to also keep your eye out for any local holiday events and opportunities like Holiday craft fairs, pumpkin composting drives, or Christmas tree recycling pickups.

[For more information on recycling right, check out our website Trash & Recycling | City of Worcester, MA \(worchesterma.gov\)](#)

Sustainable Resolutions

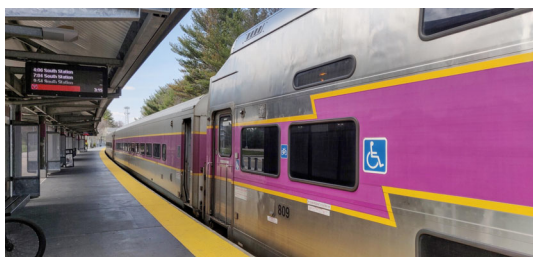
POSTED BY GREEN WORCESTER TEAM ON 01-04-2024



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The Green Worcester team wishes you a happy and healthy New Year! To celebrate, we are sharing our top five sustainability resolutions to elevate your environmental impact and help Worcester meet its goals in 2024. It's the perfect time to make your life more sustainable!

Use Local Public Transit or Low-Impact Mobility



Transportation makes up 27% of our [community's greenhouse gas emissions](#). Taking public transportation instead of driving a passenger vehicle can help reduce vehicle miles traveled (VMTs) and the resulting emissions. The Worcester Regional Transit Authority ([WRTA](#)) operates public transportation routes in the Worcester region, offering bus and shuttle services to local residents for free or at a relatively

low cost. The Mass Bay Transit Authority ([MBTA](#)) operates state-run trains, buses, shuttles, and ferries out of Boston. The commuter rail, which connects Boston to surrounding cities and towns, runs the Framingham/Worcester Line. Additionally, several MBTA buses run back and forth from Worcester to Boston.

Also try using low-impact mobility options like walking, biking, or carpooling to get to your destination. Try greening your commute just once a week. After a few weeks, try two days, then three. See how you feel! Challenge yourself to commute sustainably.



To really cut your home emissions (and even save some money!) consider electrifying your heating, cooling, and cooking systems. Heat pumps are an efficient alternative to traditional heating and cooling, they regulate indoor temperatures and save a TON of energy. Check out Mass Save heat pump and electrification incentives [here](#). Also, get in touch with our Worcester [Energy Advocates](#) who can guide you through the electrification process.

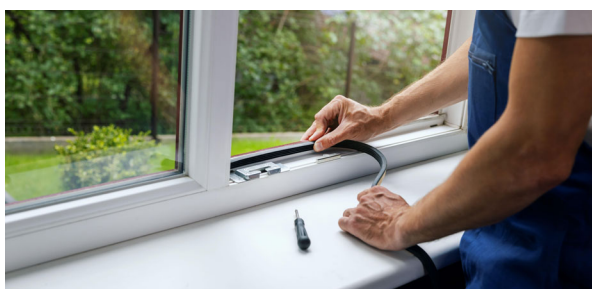
The recent Inflation Reduction Act established the High-Efficiency Electric Home Rebate Act (HEEHRA) which is releasing incentives and rebates for purchasing a heat pump or other efficient, electric appliances. Some tax incentives are already available and many of the program rebates are expected to launch in mid 2024 and can cover up to 100 percent of heat pump costs for mid to low-income households! Learn more about the tax incentives [here](#) and upcoming rebates [here](#).

Eat and Shop Local



Not only does eating and shopping locally support local businesses, but it also reduces the greenhouse gas emissions associated with the transportation of goods. There is an [abundance](#) of farmer's markets with fresh produce and artisan products in Worcester. There are even mobile markets and online pickup options! And why stop there? When eating out, try finding restaurants that serve farm-to-table or source their ingredients sustainably. Make for a greener, healthier year: eat and shop locally.

Energy-Efficient Upgrades



Small upgrades can yield significant energy savings. Consider simple changes such as installing LED lighting, improving insulation, and upgrading to energy-efficient appliances. These improvements not only benefit the environment but also contribute to long-term savings on energy bills.

Check out some other easy, low or no-cost tips for saving energy [here](#). Get in touch with our [Energy Advocates](#) who can help you get a home energy assessment and make efficient changes.

Compost at Home



Composting is an easy way to reduce your household waste and the associated greenhouse gas emissions. Try using your compost for sustainable yard projects like a [rain garden](#) or edible garden.

The [Department of Public Works](#) offers compost bins for home use to Worcester residents at a discounted rate. The "Earth Machine" composter costs \$45 and can be purchased by appointment.

Remember that yard waste and leaves can be composted by collection too!



electrifying your home, eating and shopping locally, implementing energy-efficient home upgrades and composting, residents like YOU can help our community reach our climate and sustainability goals.

Happy New Year!

Green Worcester

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455 Main Street, Room 108

Worcester, MA 01608

[Green Worcester](#)



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Green Worcester Plan

First Annual Progress Report

City of Worcester

July 2021 – December 2023

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



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Letter from the Chief of the Department of Sustainability and Resilience

Dear partners, neighbors, and friends,

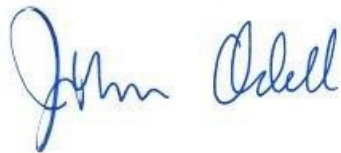
“The Green Worcester Plan is a strategic framework ...to making Worcester one of the most sustainable and climate-resilient mid-sized cities in America by 2050.” That’s the lead sentence in the Executive Summary of the GWP. It is an ambitious and bold statement, intentionally so. Real progress does not happen on the fringes and not knowing how we will achieve a goal is not a good reason not to set it. It should be clear to everyone as we close 2023, the warmest year ever recorded and quite possibly the warmest in past 125,000, that bold local and global responses to climate change are needed. The City’s GWP provides just such a roadmap to achieve that vision.

The plan has ambitious and actionable goals, but also recognizes that future conditions are not known, so the plan will need to change and adapt to changing circumstances, needs and opportunities. As you’ll see in this report, some of the goals and projects reported are directly set forth in the GWP, whereas others were developed as the work began and we needed to pivot based on grant opportunities or other timely priorities. We also need to recognize, in part due to significant challenges over the past two years: a global pandemic, energy prices spiking to unprecedented levels, supply chain delays and more, that we have not met all the carbon mitigation metrics we should have to date. We will know the details of how far behind the curve we are when our 2023 carbon emissions report is completed in the spring of 2024. Still, as you will see below, much progress was made.

I want to assure you that together with our many city partners, organizations, businesses, and residents who have worked with us in shared stewardship and mutual care of our city and our planet, we will continue to work diligently to pursue opportunities that will help Worcester become one of the most sustainable and climate-resilient mid-sized cities in America.

Please join us.

Sincerely,

A handwritten signature in blue ink that reads "John Odell". The signature is fluid and cursive, with the first name "John" and the last name "Odell" clearly distinguishable.

John Odell

Chief of Department of Sustainability & Resilience

Reading This Report

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

- An executive summary, which provides a summary list of completed and ongoing actions (excluding those not yet started), as well as the summary of progress made to date of top goals and early actions identified by the Green Worcester Plan (GWP),
- A list of priority actions for 2024 that the Department of Sustainability and Resilience will focus on, and
- A status update for all the actions listed in the Green Worcester Plan, from July 2021 through December 2023. This last section is broken into ten sub-sections, covering chapters 2-12 of the plan. Each table includes the action item, the status, and a short description of our progress. We are using the following system to designate the status of each goal:

Status	Description
Not Started	This action has not been started
In Progress	The City or community have begun working on action implementation
Ongoing	An action that calls for recurring action(s) (with no definitive end)
Completed	The action is complete, and all milestones have been reached
Refocused	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

Executive Summary

Summary of Completed Green Worcester Plan Actions

Action	Progress
Create a new Department of Sustainability	The Department of Sustainability and Resilience (DSR) was founded in July 2021. The department now has 11 full and part-time staff members. (Chapter II, Action 1)
Create a Green Worcester Advisory Committee	The Green Worcester Advisory Committee had their first meeting on March 7, 2022. The committee has seven members, with each district having at least one representative. (Chapter II, Action 3)
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)
Develop and implement a Sustainability and Resiliency Dashboard	DSR published a dashboard highlighting the City’s accomplishments and outlining how residents can help us meet our sustainability goals. It was launched on April 21, 2023, Earth Day, and is updated on a regular basis. (Chapter II, Action 6)
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)
Support and advocate for an advanced State Energy Code	The City has adopted a highly efficient energy building code, the Specialized Stretch Code, which will go into effect on July 1, 2024. (Chapter IV, Action 13)

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)

Summary of Ongoing Green Worcester Plan Actions

Action	Progress
Ensure enforcement and training for sustainability and resiliency codes and regulations	Through a City Council vote, the City has adopted a highly efficient energy building code called the Specialized Stretch Code. The new code will go into effect on July 1, 2024. The Inspectional Services Department (ISD) will receive the needed training to enforce the new code. (Chapter II, Action 2)
Prepare and publish Annual Progress Report	The City is committed to updating this report annually. In the future we will adapt the timescale of this report to capture developments over the previous calendar year. (Chapter II, Action 7)
Implement an outreach strategy	DSR is spearheading Green Worcester’s outreach strategy. DSR has monthly communication strategy meetings and is reaching out to people through monthly newsletters, surveys, the Green Worcester Dashboard, social media posts, and radio PSAs. (Chapter II, Action 8)
Develop datasets to make data-driven decisions	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. DSR has hired an internal Energy Analyst; created the Green Worcester Dashboard to better display our data; and has begun compiling data from other departments to keep better track of our energy and sustainability data. (Chapter II, Action 9)
Integrate sustainability and resilience in school curriculum	The City has begun to explore opportunities to include local sustainability and resilience content in the Worcester Public Schools’ curriculum, including discussion with the WPS curriculum coordinator, meeting with the Doherty Environmental Club, and facilitating Holy Cross projects for the WPS classroom content. (Chapter II, Action 10)
Promotion Green Worcester Plan to private stakeholders	DSR held 35+ public presentations for city stakeholders including the Worcester Garden Club, the Worcester Board of Health, and the Worcester Business Improvement District. (Chapter II, Action 11)
Encourage development of a business committee	DSR has developed a working relationship, through the exchange of knowledge and information, with the Chamber of Commerce on sustainability, energy, and zero waste related projects. (Chapter II, Action 12)
Promote collaboration with educational institutions	The City has made several successful connections, through the exchange of knowledge and information, with local higher education institutions, including Clark, WSU, WPI, and Holy Cross, and is continuing to build our connections with educators in public schools in Worcester. (Chapter II, Action 14)

Identify opportunities for innovative energy pilot projects	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 will continue to look for similar opportunities. (Chapter III, Action 6)
Update and implement Open Space and Recreation Plan	The City updates their Open Space Recreation Plan every seven years. Our most recent update was in 2021. (Chapter IV, Action 1)
Make new green spaces in urban core	The City was recently awarded a State Grant to plant Miyawaki Forests, small, fast-growing biologically diverse forests, in heat-island, environmental justice areas of the City. We have also invested in a Heat Map study to identify areas of the City that experience the Urban Heat Island Effect the most. The City is also actively creating a “Green Street” along Endicott and Bigelow Streets in the Green Island Neighborhood. (Chapter IV, Action 3)
Manage water supply open spaces lands	The City’s Department of Public Works and Parks (DPW&P) continues to manage the City’s 10 drinking water reservoirs, delivering 8 billion gallons of safe drinking water annually. (Chapter IV, Action 8)
Expand Lakes & Ponds Program and reduce water pollution	<p>The City’s Lakes & Ponds Program added two new ponds to their treatment management program. The program now monitors and manages a total of six waterbodies. Additionally, the program leads a group of community scientists to monitor cyanobacteria at over 20 waterbodies in Worcester. They are continually looking for funding to expand their monitoring and management capabilities. (Chapter IV, Action 9)</p> <p>The Lakes & Ponds Program installed an “Alum” dosing station at Indian Lake to maintain lake water quality, resulting in fewer beach closures. State ARPA funds were acquired to complete analysis and implementation of other water quality improvement projects. The program also hosted over 50 outreach events to teach residents about their waterbodies. (Chapter VII, Action 13)</p>
Raise awareness of stormwater management	The City has distributed 179 rain barrels since 2021. Additionally, we are developing a collaborative relationship with Worcester Native Plant Initiative, a local volunteer group dedicated to planting native plants in the City. (Chapter IV, Action 10)
Enforce code compliance	The updated Stretch Code and Specialized Stretch Code increase energy efficiency requirements. The City’s Inspectional Services Department (ISD) maintains current energy code metrics and has a good track record of compliance. ISD has noted only one compliance issue since 2010. (Chapter V, Action 11)
Support update to land use and zoning	We are working collaboratively with other key Departments on the development of the City’s Now Next Plan, which will include zoning recommendations. (Chapter V, Action 14)
Prioritize connectivity in transportation planning	Department of Transportation and Mobility is developing a Mobility Action Plan, with overarching goals of safety, equity, sustainability, and connectivity in the city. The plan will identify strategies to promote those goals and is expected to be completed in early 2024. A part of the Plan will include a “Vision for a Bike and Micromobility Network in Worcester: Improving Access to Green and Blue Spaces for All.” (Chapter VI, Action 3).

Promote sustainable event transportation	There is currently a shuttle from the City’s parking garages to Polar Park on game days. (Chapter VI, Action 4)
Promote electric vehicle use	The City installed 9 dual port Electric Vehicle Charging stations in 2023, increasing the number of publicly owned charging station ports to 30. The City is also actively increasing our stock of Electric Vehicles by purchasing an EV for City Manager use and applying for money to purchase 20 EV school buses. (Chapter VI, Action 6)
Optimize WRTA service	Worcester Regional Transit Authority eliminated fares to promote ridership and increase route efficiency. Collecting fares slows service and creates inefficiency costs. The Mobility Action Plan will include plans for pedestrian improvements to support transit stops. (Chapter VI, Action 10)
Identify new urban agriculture sites	The Regional Environmental Council added four community gardens since the Green Worcester Plan was adopted and continues to expand their community gardens network. (Chapter IX, Action 2)
Integrate school gardens in the curriculum	The Regional Environmental Council has supported 25 school gardens and engaged 2,677 students with hands-on gardening activities and classroom workshops. (Chapter IX, Action 5)
Continue brownfields program	In May of 2023, the City received a \$2.7 million from the EPA for brownfield remediation. The City has previously been awarded \$5.1 million by the EPA for brownfield remediation, which was used to fund 13 brownfields remediation projects. (Chapter X, Action 4)
Continue lead abatement programs	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. Since July 2021, 135 units were de-leaded, funded by federal grants. (Chapter X, Action 5)
Create a Resilience Working Group	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 meeting provide the forum needed to collaborate on resiliency related programs and projects. (Chapter XI, Action 1)
Promote a resilient food system	The Regional Environmental Council, a community partner, offered access to fresh local food through their standing and mobile farmer’s market programs; supported 25 school gardens; engaged 2,677 students with hands-on gardening activities and classroom workshops; added four community gardens to their network; and maintained their Healthy Incentives Program which allows residents to use SNAP and EBT benefits at Farmer’s markets. (Chapter XI, Action 3)
MVP¹ Priority Actions: Improve social resilience	The City developed and launched the “Worcester 311” app for a quick and easy way for residents to submit non-emergency requests for assistance with issues around the City. (Chapter XI, Action 4b)

¹ Municipal Vulnerability Preparedness

Summary of progress made to date of top goals and early actions identified by the Green Worcester Plan (GWP)

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 by this date. This work will be done in three concurrent phases:

- 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 16% since 2009. Municipal buildings, specifically, saw an 18% reduction in emissions. The decline is a result of Worcester's dedication to making our buildings more efficient and installing solar arrays on municipal buildings and parking lots. Since 2011, the City has converted roughly 14,000 streetlights to LEDs and implemented a wide variety of energy conservation measures – such as installing advanced building management systems, insulation & air-sealing, and electric heat pumps – in 92 of our largest, occupied facilities. These measures work to improve our efficiency – lowering the City's reliance on fossil fuels and thereby reducing our carbon emissions. Our work to lower our building's emissions and reduce fuel usage has saved the City over \$16 million dollars to date.

The City owns one of the largest municipally owned solar farms in New England (8.1 MW-DC of electric capacity – see green.worcesterma.gov for a solar energy dashboard). The City currently owns and operates 19 other, smaller solar arrays, including recent installations at 3 schools, and the Worcester Senior Center. The four new solar arrays have a combined capacity of 1.25 MW increasing our total solar production capacity by 12%. Adding solar panels to new and older buildings is cost-effective way to move towards net-zero.

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 December 2023, 62% 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 26% renewable energy in their supply. Since the program began in 2019, the program has saved over 160,000,000 pounds of carbon dioxide from being emitted into the atmosphere, the equivalent of taking over 15,000 gasoline-powered passenger vehicles off the road for one year.

Use 100% renewable energy for residences and businesses:

Based on our most recent GHG emissions inventory, buildings produce 65% 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 in September 2023. This Specialized Stretch Code will require 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. The code will go into effect in July of 2024.
- In 2023, the City launched the Smart Energy Advice program by hiring two Energy Advocates, funded in part by a Mass Save grant, to promote energy efficiency improvements in homes and small businesses. The advocates focus 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.

Building Climate Change Resilience

The Department of Sustainability and Resilience (DSR), in partnership with a variety of other entities, is striving to make the City and its population more resilient to climate change impacts such as more frequent extreme storms, severe flooding, heat island effects, and more.

Increasing Our Tree Canopy

The Department of Public Works and Parks (DPW &P) is developing the City's first Urban Forest Master Plan. The final plan should be completed by the beginning of 2024.

In 2022, DSR completed a city-wide extreme heat study that will help us target resilience solutions where they are needed most. To achieve the level of cooling needed, the key recommendation was to increase the total tree canopy in Worcester by 30,000 - 35,000 trees by 2050, prioritizing plantings in areas with little tree cover. Consistent annual tree funding will be needed to attain this goal.

The City was awarded a Municipal Vulnerability Preparedness Action Grant by the state to plant two Miyawaki forests on municipal land. These small pocket forests, known for their co-benefits of reducing heat and flooding, will be the first of their kind in the City and they will be planted by July 2024.

Improving Water Quality and Reducing Flooding

To better understand the City's storm water system, the City is mapping and modeling the existing drainage system via a state Municipal Vulnerability Plan action grant. The map and models will help the City prioritize citywide grey and green infrastructure improvements. The plan is expected to be completed by June 2024.

After over 3 years of planning, construction of an alum dosing station was completed in Spring 2023 with the support of many collaborators including land donations from Bancroft School and The Unitarian Universalist Church. The station, installed at the mouth of Ararat Brook, automatically applies an environmentally friendly chemical, polyaluminum chloride, to the water as it flows into Indian Lake. The "alum" immobilizes phosphorus before it enters the lake, reducing the available food for harmful cyanobacteria blooms.

The Lakes and Ponds program oversees the Worcester Cyanobacteria Monitoring Collaborative (WCMC), a community science group in which interested residents collect samples at 26 local lakes and ponds. The samples help the Lakes and Ponds program staff understand the risk of cyanobacteria blooms. L&P staff trained over 48 community scientists volunteers in 2022 and over 59 in 2023 on how to collect and analyze lake water samples.

Advancing Mobility Transformation

Our most recent Greenhouse Gas Emissions Inventory, completed in 2022, found that transportation caused 27% of the community's GHG emissions and 16% of municipal emissions. With such high associated emissions, transforming how we move continues to be crucial to meet the City's goal of becoming a green and net zero city.

In July 2022, the City formed the Department of Transportation and Mobility (DTM) to work collaboratively with other departments and agencies to plan, coordinate, design and implement transportation programs and projects that promote safe, equitable, and sustainable mobility options. DTM is also spearheading the development of a Mobility Action Plan (MAP), which will help the department identify goals and priorities for their work.

In 2022-2023, DSR installed six electric vehicle charging ports in each of the three municipal garages for a total of 18 new charging ports and added one electric vehicle (EV) to our municipal fleet. Due to supply chain delays, progress to meet municipal fleet electrification goals has been lagging.

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 Zero Waste Coordinator in August 2023 to coordinate that planning process. In addition, the Department of Public Works and Parks formed an interdepartmental working group to create and implement a recycling campaign to tackle the issue of high contamination in residential curbside

recycling. The committee's work was successful, resulting in a reduction of contamination over four quarters from about 20% to less than 10%. Additionally, the DPW&P launched the City's first textile recycling curbside pickup program.

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. Since July 2021, 135 residential units were de-leaded and 13 brownfields abated, funded by federal grants.

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. The REC supports a network of over 70 community gardens, brings local produce to those most in need of it through their mobile markets, and provides economic opportunity and professional development to Worcester youth through urban agriculture.

The Racial and Ethnic Approaches to Community Health (REACH) program is a national program administered by the Centers for Disease Control and Prevention (CDC) to reduce racial and ethnic health disparities. Through the REACH program, the City has installed refrigerators at four food pantries across Worcester to increase access to fresh produce – much of which is donated by local community gardens many of which are coordinated by the REC.

Public Engagement and Outreach

Outreach and Public Engagement are key functions for DSR. Examples of efforts made to date include the following:

- DSR published a dashboard highlighting the City's accomplishments and outlining how residents can help us meet our sustainability goals. It was launched on Earth Day 2023 and is updated on a regular basis.
- The City has also made several successful connections, through the exchange of knowledge and information, with local higher education institutions, including Clark, WSU, WPI, and Holy Cross, and is continuing to build our connections with educators in lower education in Worcester.
- DSR plays the lead role in Green Worcester's outreach strategy with monthly communication strategy meetings and is reaching out to people through monthly newsletters, surveys, the Green Worcester Dashboard, social media posts, and radio PSAs.
- DSR held 35+ public presentations for city stakeholders including the Worcester Garden Club, the Worcester Board of Health, and the Worcester Business Improvement District.

Planning for Success and Integration of Sustainability and Resilience Policies Citywide

Over the past two years, DSR, DTM, the Office of Economic Development, the Department of Planning and Regulatory Services, and DPW&P have collaborated in interdepartmental working groups to integrate sustainability into zoning policies, street redesigns, and park upgrades.

In Spring 2022, the City kicked off the development of a comprehensive plan called Worcester Now|Next, which has engaged the community in exploring issues such as land use, housing, transportation and mobility, economic opportunity, arts and culture, recreation, open space and environment, and more. The draft plan includes goals such as ensuring the City is resilient to the effects of climate change, achieving net zero by 2045, managing and expanding our urban forest and more. Many of the critical Green Worcester Plan goals will be integrated into this plan.

Looking Forward - DSR's Priority Actions in 2024

A lot has been accomplished since the launch of the Green Worcester Plan (GWP). The initial focus has been on establishing the internal infrastructure to enable the plan's implementation. The City created a Department of Sustainability and Resilience (DSR), a Green Worcester Advisory Committee, and advanced planning activities related to mobility planning, urban forest planning, and comprehensive master planning. The recently formed Departments of Public Facilities and Transportation & Mobility also have significant sustainability and resilience emphasis.

While the GWP report provides a status update on all of its designated priority actions, i.e., those assigned to the City government, businesses, residents, and institutions, this section focuses specifically on the GWP-aligned priorities of the Department of Sustainability and Resilience for the upcoming year.

DSR was formed in July of 2022 (now with 9 permanent and 3 part-time positions), with a mission to promote the GWP's vision of Worcester becoming the most sustainable and climate-resilient mid-sized city in America by 2050. DSR's mission is *"to implement the ambitious and urgent goals of the Green Worcester Sustainability and Resilience Strategic Plan (GWP). To be a strong and reliable advisory and collaborative partner which supports integration of sustainability and resilience and leveraging projects' co-benefits into all functions of the City via policies, projects, and initiatives. To use the lenses of health, equity and prosperity to guide projects."*

While many of the Early Action Items in the GWP were accomplished, now is the time to look ahead to 2024. Below is a list of DSR's priorities for the upcoming year, which will align with DSR's work planning, funding requests, and choices around resource allocation.

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.
- Seek and pursue opportunities for the City's *5000 triple-deckers* related to improving energy efficiency, as well as increasing renewable energy and electrification projects.
- 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.

ZERO WASTE

- Develop *Zero Waste Master Plan* which will set out the goals and priorities for implementation.

RESILIENCE and ENVIRONMENT

- Complete the *Drainage and Green Infrastructure Master Plan* with identified priorities for green and grey infrastructure improvements and pursue opportunities to start implementing those priorities.
- Complete the installation of two Miyawaki Forests and conceptual designs for two Community Resilient Spaces.
- Invest in expanding the City's urban forest (in line 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.
- Develop *Watershed Management Plans* and implement associated water quality improvement projects for the Lakes and Ponds Program.

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 for Worcester Public Schools' Curriculum, as well as Workforce and Youth Workforce Development for maintenance of green infrastructure and biodiversity/pollinator friendly landscapes, with the help of community partners such as the vocational school, Regional Environmental Council, the Green Jobs Academy and local Higher Education Institutions such as Holy Cross.

URBAN AGRICULTURE and SUSTAINABILITY

- Develop an Urban Agriculture Plan which will set out the goals and priorities for encouraging and incentivizing homeowners to grow food and native plants.

Status and Progress

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 9 permanent and 1 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	Through a City Council vote, the City has adopted a highly efficient building energy code called the Specialized Stretch Code. The new code will go into effect on July 1, 2024. The Inspectional Services Department (ISD) will receive the needed training to enforce 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	The Green Worcester Advisory Committee had their first meeting on March 7, 2022. The committee has seven members, with each district having at least one representative, and meets almost monthly.
4. Green Worcester Fund: Create a Green Worcester Fund for the City’s sustainability and resilience programs.	Completed	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)
5. Sustainability Performance Outcomes for New Development.	In Progress	The City is pivoting from developing our own performance metrics to implementing the State developed Specialized Stretch Code related to energy efficiency of the building. Additionally, we anticipate that through the future zoning ordinance revision (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 published a dashboard (green.worcesterma.gov) highlighting the City’s accomplishments and outlining how

		residents can help us meet our sustainability goals. It was launched for Earth Day 2023 and 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. In the future we will adapt the timescale of this report to capture developments over the previous calendar year.
8. Outreach Strategy: Implement a transparent Green Worcester outreach strategy to include traditional and new media and activities.	Ongoing	DSR is spearheading Green Worcester’s outreach strategy. DSR has monthly communication strategy meetings and is reaching out to people through monthly newsletters, surveys, the Green Worcester Dashboard, social media posts, and radio PSAs.
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	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. DSR has hired an internal Energy Analyst; created the Green Worcester Dashboard to better display our data; and has begun compiling data from other departments to keep better track of our energy and sustainability data.
10. School Curriculum: Integrate sustainability and resilience into the curriculum at all levels in the Worcester Public Schools.	Ongoing (2024 Priority Action)	The City has begun making connections with Worcester Public School staff, and city staff has met with environmental groups at the high schools to discuss sustainability and resilience in Worcester.
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	DSR held 35+ public presentations for diverse city stakeholders, such as the Worcester Garden Club, the Worcester Board of Health, Chamber of Commerce, higher educational institutions, the Worcester Business Improvement District, and many more.
12. Business Committee: Encourage the Greater Worcester Chamber of Commerce to create a sustainability and resilience committee.	Refocused and Ongoing	DSR has developed 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	
14. Collaboration with Educational Institutions: Promote continued collaboration with the City’s educational institutions to achieve Green Worcester goals.	Ongoing	The City has made several successful connections with local higher education institutions, including Clark University, Worcester Polytechnical Institute, Worcester State University, and Holy Cross, and is continuing 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 ² Certification: Consider seeking LEED certification as a sustainable community.	Not Started	The City investigated the LEED certification and decided not to pursue due to cost.
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	

² Leadership in Energy and Environmental Design

Chapter III - 100% Clean and Affordable Energy

Action	Status	Progress
<p>1. Zero Emissions: Eliminate 100% of greenhouse gas (GHG) emissions citywide.</p>	<p>In Progress 3% of Goal</p>	<p>The City has adopted a highly efficient energy building code, the Specialized Stretch Code, which will go 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 requires mixed-fuel new construction to be pre-wired for electrification and to install solar PV on a state-determined formula basis.</p> <p>Green Worcester ElectriCITY Aggregation provides energy that consists of 40% premium renewable electricity in addition to the state required 22% (resulting in 62% renewable energy) to residents and commercial customers via the new aggregation contract, which began in December 2023 and ends in December 2025. Since the program began in 2019, the program has eliminated the release of over 160 million pounds of carbon dioxide emissions into the atmosphere.</p> <p>A Greenhouse Gas Emission Inventory was completed in 2022, comparing the progress from 2009-2019. The inventory found there was a 3% decrease in citywide GHG emissions since 2009 (find more at www.worcesterma.gov/greenworchester). We are going out to bid to hire a consultant to conduct another inventory for 2020-2023 and plan to conduct inventories bi-annually after that.</p> <p>See Action 4 below for details on our municipal operations.</p>
<p>2. Community Choice Program: Achieve 100% renewable electricity sources by 2035 via aggregation.</p>	<p>In Progress 62% of Goal</p>	<p>See Chapter III, Action 1, above.</p>
<p>3. Carbon Neutral Cities Alliance: Seek nomination for membership.</p>	<p>Not Started</p>	

4. Net Zero City Operations: Aim to make city facilities and operations net zero by 2030, including the City's vehicle fleet.	In Progress (2024 Priority Action)	The City hired a company, Honeywell, to conduct an assessment of our facilities to increase energy efficiency providing cost savings for our municipal operations. We just completed our most recent contract with Honeywell and are launching the next phase soon. In the past 10 years, the City has decreased our emissions by 16%. The City installed 3 new solar PV systems on municipal buildings (South High School, West Tatnuck Elementary School, and Nelson Place). See Chapter VI, Action 6 for details on city fleet.
5. Flexible Commutes for City Employees: Develop commuting and/or work at home programs for City employees to cut emissions.	Not Started	
6. Identify opportunities for innovative energy pilot projects.	Not Started (2024 Priority Action)	
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 (2024 Priority Action)	The City installed three dual-port electric vehicle charging stations in three municipally owned public garages (Pearl Elm, Worcester Common, and Federal Plaza) for a total of eighteen new ports in 2023. There are twelve municipally owned parking areas with 20+ parking spots. Four have EV Charging Stations. For more details, visit: Vehicle Electrification City of Worcester, MA (worcesterma.gov) and See Chapter VI.
10. Multifamily EV charging: Require EV stations and EV-ready parking at all new 5-unit plus multifamily buildings with on-site parking.	In Progress	Effective July 2024, 20% of residential and business parking spaces associated with new construction will be 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	Not Started	

standards for siting solar farms and solar installations (residential and commercial).		
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 (2024 Priority Action)	The City completed a Heat Map study to identify areas of the City that experience the Urban Heat Island Effect the most. The City is developing a plan to redevelop Endicott and Bigelow Streets in the Green Island Neighborhood as a “Green Street”. The City was recently awarded a State Municipal Vulnerability Preparedness (MVP) Grant to plant Miyawaki Forests - small, fast-growing biologically diverse forests - in hot, environmental justice areas of the City.
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	See Chapter VI, Action 13.
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 Forestry Plan.	In Progress (2024 Priority Action)	The City’s Parks Division and Urban Forestry Tree Commission are finalizing the Urban Forest Master Plan.
7. Tree Standards: Establish development standards for tree retention, replacement and planting for private projects that meet size thresholds.	Not Started	

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.
9. Lakes & Ponds Program: Continue the program to improve water quality and expand it to additional surface water features.	Ongoing (2024 Priority Action)	The City’s Lakes & Ponds Program added two new ponds to their treatment and management program. The program now monitors and manages a total of six waterbodies. Additionally, the program has been leading a growing group of community scientists to monitor cyanobacteria at over twenty waterbodies in Worcester. Worcester State University faculty and staff have participated in cyanobacteria monitoring and have conducted additional monitoring at two ponds using the protocol developed by the Lakes and Ponds Program to increase the number of waterbodies with comprehensive monitoring to eight. There are continuing efforts to seek additional funding to expand water quality monitoring and management of more water bodies.
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	The City has distributed 179 rain barrels since 2021. Additionally, we are developing a collaborative relationship with Worcester Native Plant Initiative which is a local volunteer group dedicated to planting native plants in the City.
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
<p>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. (See Chapter III.)</p>	<p>In Progress</p>	<p>New municipal buildings will need to be constructed to the standards set forth in the Specialized Stretch Code set to go into effect in July 2024.</p> <p>Where feasible, the City will electrify its existing buildings during renovation projects.</p>
<p>2. Municipal Strategic Building Energy Management Plan.</p>	<p>In Progress</p>	<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>
<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.</p>	<p>In Progress (2024 Priority Action)</p>	<p>The City has adopted a highly efficient energy building code, the Specialized Stretch Code, which will go into effect on July 1, 2024. New buildings constructed after this date will have no or limited fossil fuel use as a result.</p> <p>In January 2023, the City received a grant from the sponsors of Mass Save to fund two temporary city staff, Energy Advocates, to promote the Mass Save incentives and rebate programs and assist residents and businesses in making their buildings more energy efficient. In Fall 2023, the City launched the Smart Energy Advice program by onboarding the two Energy Advocates.</p>
<p>4. Mandatory Energy Efficiency in City-Funded programs.</p>	<p>Not Started</p>	
<p>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.</p>	<p>Not Started</p>	

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	
7. Distributed Energy Systems: Promote solar installations, geothermal networks, and other distributed energy systems, working with the state, National Grid, and other stakeholders.	Ongoing	The City worked with local neighborhood groups to apply to be a part of the geothermal networked neighborhood pilot project managed by Eversource, but was not selected as a pilot site at this time. We will continue to explore similar opportunities.
8. Sustainability Incentives for Private Buildings: Provide at least two incentives for private sector buildings that meet the standards of LEED ³ 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	
11. Code compliance: Enforce consistent compliance with current energy codes.	Ongoing	The updated Stretch Code and upcoming Specialized Stretch Code increase energy efficiency requirements. The City’s Inspectional Services Department (ISD) will receive training on the updated codes, as it is responsible for enforcing those codes.
12. Home MPG ⁴ 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	

³ Leadership in Energy and Environmental Design

⁴ Miles Per Gallon

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 highly efficient energy building code, the Specialized Stretch Code, which will go 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 (2024 Priority Action)	DSR is a collaborative partner in the Planning Division’s work on the City’s Now Next Plan. Once the Plan is approved, DSR will continue to work together to implement the plan’s high priority actions, especially related to updating zoning ordinance to promote the goals of the GWP.
15. Sustainable Reuse of Underutilized Properties.	In Progress	See Chapter XII, Action 3.

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 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.
2. Transportation Emissions Reductions: Make the reduction of greenhouse gas emissions an explicit goal of City of Worcester transportation planning.	In Progress	DTM, in collaboration with DSR, is currently developing a Transportation and Mobility Action Plan, which will include numerous schematic level plans 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 (2024 Priority Action)	DTM is currently creating a Transportation and Mobility Action Plan which will include 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.	Ongoing	There is currently a shuttle from the City’s parking garages to Polar Park on game days.
5. Idling Reduction: Enforce the Massachusetts Anti-Idling Law (Chapter 90, Sec. 16A).	Not Started	
6. Electric Vehicle Use: Promote the use of electric vehicles in Worcester.	Ongoing (2024 Priority Action)	The City installed eighteen Electric Vehicle Charging stations, increasing the number of publicly owned charging stations to 30. The City is also actively working to increase our stock of Electric Vehicles by purchasing an EV for the City Manager use and collaborating on the application for a grant to purchase twenty EV school buses. The City is also working with MassCEC on the Accelerating Clean Transportation School Bus Advisory Services Program, which will help with planning and implementing school bus electrification.
7. WRTA Fleet: Transition the WRTA bus fleet to 100% electric buses by 2035.	Not Started	

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	
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 Transportation and Mobility Action Plan will include plans for pedestrian improvements to support transit stops.
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.	Refocused and In Progress	The City's Transportation and Mobility Action Plan will include a complete streets prioritization plan.
13. Micromobility Plan: Develop and Implement a Pedestrian, Bicycle, and Micromobility Plan.	In Progress	Pedestrian, Bicycle, and Micromobility will be large focuses in the City's forthcoming Transportation and Mobility Action Plan.
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,	Not Started	

monthly or weekly, or as one-off events, for biking and walking.		
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	
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 (2024 Priority Action)	
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	

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 (2024 Priority Action)	The City is developing a Drainage and Green Infrastructure Master Plan funded in part by a \$1.2 million state grant. The project kicked off in Fall 2022 with an anticipated completion in June 2024.
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.	In Progress	See Chapter IV, Action 6.
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.	Not Started	
8. City Green Infrastructure: Identify and implement opportunities for green infrastructure in City facilities and landscapes.	In Progress	DSR has been working with DPW&P on a <i>Drainage and Green Infrastructure Master Plan</i> since September 2022 and expect to complete it by June 2024, which will identify priorities for green and grey infrastructure improvements and will then pursue opportunities to start implementing those priorities.
9. Private Green Infrastructure: Promote green infrastructure practices to manage stormwater in private development.	Not Started	
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 (2024 Priority Action)	
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.	Not Started	
13. Lakes & Ponds Program: Continue and expand the Lakes & Ponds program and coordinate with initiatives to reduce	Ongoing	The Lakes & Ponds Program installed an “Alum” dosing station at Indian Lake to maintain water quality resulting in fewer beach closures. State ARPA funds were acquired to complete analysis and implementation of water quality improvement projects. The program hosted over 50

nonpoint source pollution to lakes, ponds, and streams.		outreach events to teach residents about their waterbodies. Staff regularly attend meetings of the City's three watershed associations to provide input and coordinate on additional outreach and education activities.
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Chapter VIII - Towards Zero Waste

Action	Status	Progress
1. Waste Management Master Plan: Develop and Implement a Zero Waste Master Plan.	In Progress (2024 Priority Action)	In August 2023, the City hired a Zero Waste Coordinator to advance the Zero Waste goals. We are currently in the process of hiring a consultant to help us develop the Zero Waste Master Plan.
2. Trash and Recycling Receptacles: Increase the number of and place trash and recycling receptacles strategically in public places.	Not Started	
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.	Not Started	
5. Food Waste Elimination: Promote food waste elimination initiatives by WPS, institutions, and businesses and reduce use of disposable food service ware.	In Progress	The City is working to build connections with Worcester Public Schools, and hopes to outline the school’s food waste elimination plan in the future Zero Waste Master Plan.
6. Reuse Initiatives: Work with community organizations and City departments to organize Swap Shops, Fix It clinics, and similar initiatives.	Not Started	

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	The Regional Environmental Council added four community gardens since the Green Worcester Plan was adopted and continues to expand their community gardens network.
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 Early Massachusetts Farm to School aided by Coach Eliza Lawrence (Regional Environmental Council (REC)).
5. Gardens in Schools: Integrate school gardens and garden curricula in the Worcester Public Schools.	Ongoing	The Regional Environmental Council has supported 25 school gardens and engaged 2,677 students with hands-on gardening activities and classroom workshops.
6. Local food sourcing: Promote local food sourcing by all institutions.	Not Started	
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	

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.	Not Started	
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	In May of 2023, the City received a \$2.7 million from the EPA for brownfield remediation. The City has previously been awarded \$5.1 million by the EPA for brownfield remediation, which was used to fund 13 brownfields remediation projects. There are 137 brownfields in Worcester, identified by the Massachusetts Department of Environmental Protection.
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 and a brownfield cleanup loan fund to mitigate two of these large historic issues. Since July 2021, 135 units were de-leaded, funded by the federal grants.
6. Water Quality and Toxins: Continue and expand water quality programs and partnerships.	Ongoing	See Chapter VII, Action 13.

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 ⁵ , HMP, and other relevant planning groups, such as the Planning and Public Health Departments.	Refocused and Ongoing	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 meeting provide the forum needed to collaborate on resiliency related programs and projects.
2. Resilience Building Standards: Establish standards for climate resilience in new and rehabilitated buildings.	In Progress	The City has adopted the Specialized Stretch Code which will result in more efficient and well-built buildings that are by default more resilient. However, there is an opportunity to create more resiliency standards for buildings that are undergoing rehabilitation.
3. Resilient Food System: Promote a robust and resilient regional food system.	Ongoing	The Regional Environmental Council, a community partner, has offered access to fresh local food through their standing and mobile farmer’s market programs; supported 25 school gardens; engaged 2,677 students with hands-on gardening activities and classroom workshops; added four community gardens 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.
4b. MVP Priority Actions: Social Resilience.	Ongoing	The City developed and launched the “Worcester 311” app for a quick and easy way for residents to submit non-emergency requests for assistance with issues around the City.
4c. MVP Priority Actions: Environmental Resilience.	Ongoing	See Chapter IV, VII, VIII, X.
5a. HMP ⁶ Priority Actions: Transportation: Integrate disaster mitigation into transportation projects.	Not Started	

⁵ Municipal Vulnerability Preparedness

⁶ Hazard Mitigation Plan

5b. HMP Priority Actions: Drought and Water Supply: Implement water supply emergency/drought projects.	Ongoing	See Chapter VI.
5c. HMP Priority Actions: Public Information and Awareness: Improve information available and educate property owners.	Ongoing	See Chapter IV, VII, X.
5d. Update the Zoning and Wetlands Protection Ordinances: Incorporate Low-Impact-Development and limit impervious surfaces.	Ongoing	See Chapter XII.
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.	Refocused and In Progress	In collaboration with the Office of Economic Development, the Department of Sustainability and Resilience (DSR) created a sustainability checklist for the Affordable Housing Trust Fund Board of Trustees to utilize when assessing housing applications. This effort proved to be ineffective, so DSR is instead planning to work on development of a comprehensive guide for development projects related to energy efficiency incentives.
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.	In Progress	The City is incorporating sustainability into their new Now Next Plan as well as the Transportation and Mobility Action Plan. Both plans are expected to be finalized and City Council approved in 2024.
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 (2024 Priority Action)	The Now Next plan will create the starting point for developing updated zoning and development standards.
4. Policy Development: Use the guidance of the Green Worcester Plan and other frameworks to develop transportation planning, design, and construction policies.	Not Started	
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.	Not Started	The City investigated the LEED certification and decided not to pursue due to cost.
7. Pilot Sustainability District: Designate a pilot “Sustainability District” as an area to test, refine, and promote new sustainability and resilience efforts.	In Progress	See Chapter II, Action 15.
8. Sustainability Performance Outcomes: Establish sustainability performance outcomes to be met by all new	Not Started	

construction or redevelopment projects seeking tax incentives from the City.		
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 will be a key facet in the City's Now Next plan which is currently under development.
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 (2024 Priority Action)	
12. Workforce Development for Green Infrastructure: Develop youth workforce development programs, like the park ranger program, for maintenance of green infrastructure projects.	Not Started (2024 Priority Action)	
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

The Department of Sustainability and Resilience would like to thank the following people, elected and appointed officials, partners, and organizations for their contributions to the implementation of the Green Worcester Plan. We are grateful for your support and participation that have made all this work possible.

City Staff

Eric D. Batista, City Manager

Department of Transportation and Mobility

Executive Office of Economic Development

Department of Public Works and Parks

Department of Inspectional Services

Worcester Public Schools

Green Worcester Advisory Committee

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Evelyn Herwitz, Vice Chair

Patricia Austin

Ted Conna

Nathan Fournier

Mary Leovich

Deirdra Murphy

Mayor and City Council

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Morris A. Bergman - Councilor-At-Large

Donna M. Colorio - Councilor-At-Large

Khrystian E. King - Councilor-At-Large

Thu Nguyen - Councilor-At-Large

Kathleen M. Toomey - Councilor-At-Large

Sean M. Rose - District 1 Councilor
Candy F. Mero-Carlson - District 2 Councilor
George J. Russell - District 3 Councilor
Sarai Rivera - District 4 Councilor
Etel Haxhijaj - District 5 Councilor

External Partners

Regional Environmental Council
Higher Education Institutions (Holy Cross, Worcester Polytechnical Institute, Clark, Worcester State University)
Worcester Native Plant Initiative
Worcester Regional Chamber of Commerce
Worcester Regional Transit Authority
WalkBike Worcester

Worcester Now | Next Draft Plan

Draft Plan Update to City Council

November 14, 2023



Now | Next
Worcester's Citywide Plan

<https://now-next.worcesterma.gov/>



Agenda

- 1. Purpose & Process Overview (5 min)**
- 2. Engagement Overview & Results (10 min)**
- 3. Draft Plan Overview (10 min)**
 - a. Plan Framework & Headlines
 - b. Growth Framework
 - c. Future Land Use Vision
- 4. Implementation Approach (10 min)**
 - a. Early Action Priorities
 - b. Monitoring/Reporting Approach
- 5. Next Steps (5 min)**

Purpose & Process Overview

What a Citywide Long-Range Plan Is and Isn't

The planning process will help us shape and create:

 A statement of shared values

 A strategic vision and roadmap for the future of the city

 A framework for implementation

The final plan will establish:

Growth Framework


Foundation for zoning reform

Capital investment priorities

Policy and program priorities

Framework for more detailed district and topic-specific plans

The plan will NOT:

 Provide a zoning rewrite

 Generate detailed topic-area or place-specific plans

 Decide exactly how local resources will be spent

Topic Areas



Housing



Transportation & Mobility



Recreation, Open Space & Environment



Economic Opportunity



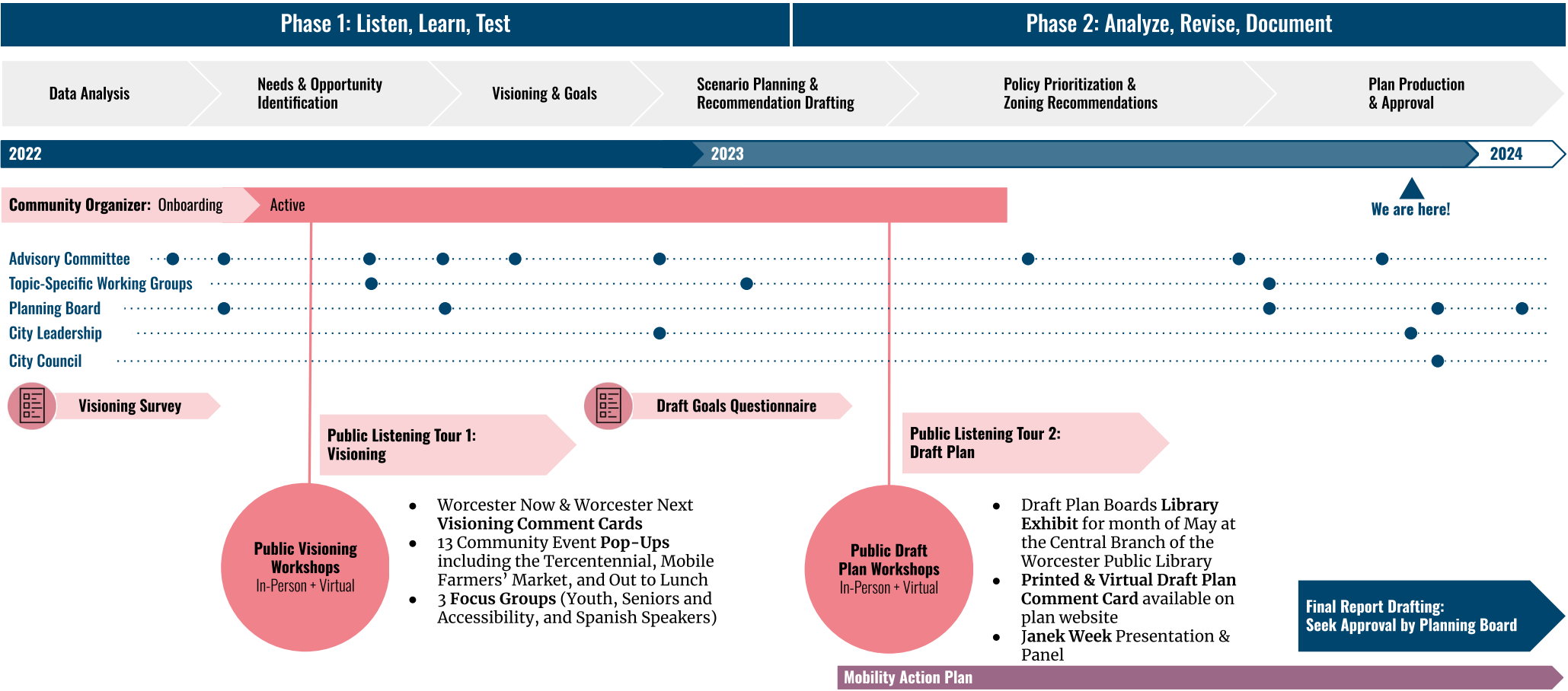
Culture & Creativity



Services & Facilities

Engagement Overview & Results

Process Overview



Stakeholder Engagement & Advisory Body Roles



Planning Board

Approving body for final plan formal adoption and implementation.

Advisory Committee

Overall process, strategic focus and alignment. This committee met 9 times as part of the planning process.



Topic-Specific Working Groups

Topic-specific technical content feedback, recommendation validation on housing, economic opportunity, and transportation and mobility. Each of these three working groups met 2-3 times as part of the planning process.



City Leadership

Courtesy coordination and input from City Manager and City Department leadership at key junctures in the process. This was conducted twice, once at the end of each of the two phases.



Advisory Committee Membership

- **Mark Borenstein**, Bowditch & Dewey, LLP, Land Use Attorney, Worcester Resident
- **Roberta Brien**, Worcester Business Development Corp (WBDC), Vice President of Projects
- **Lynn Cheney**, Business owner, Maker to Main, Worcester Resident
- **Germán Chiriboga**, UMass Chan Medical School, Program Director, Worcester Resident
- **Amanda Gregoire**, Mass Development, Vice President of Real Estate Services, Worcester Resident
- **Sujatha Krishnan**, Central Massachusetts Regional Planning Commission (CMRPC), Deputy Director
- **Albert LaValley**, Planning Board Chair, Worcester Resident
- **Joyce Mandell**, Resident, Urban Planning Partnership, Worcester Resident
- **Ivette Olmeda**, MassDevelopment Transformative Development Initiative (TDI) Worcester Senior Fellow, Worcester Resident (partial)
- **Amie Shei**, The Health Foundation of Central Massachusetts, Executive Director
- **Casey Starr**, Main South CDC, Director of Community Initiatives, Worcester Resident (partial)
- **Suzanne Wood**, UMass Chan Medical School, Sustainability Manager
- **Ulysses Youngblood**, Business owner, Major Bloom, Worcester Resident

Public Engagement by the Numbers

780+ new planning email update subscribers

PHASE 1: Listen, Learn, Test Citywide Online Visioning Survey

- 1,377 participants
- 1,241 statements submitted

Public Visioning Workshops (in-Person & Virtual)

- 100+ attendees
- 755 board comments

Visioning Listening Tour

- 13 community event pop-ups
- 258+ now-next visioning comment cards
- 3 focus groups
 - Seniors + accessibility
 - Youth
 - Spanish-speakers

PHASE 2: Analyze, Revise, Document

Priority Goals Questionnaire

- 1,030 responses

Public Draft Plan Workshops & Library Exhibit

- 50+ in-person attendees
- 63 virtual registrations
- 150+ board comments & comment cards
- 2,025+ recommendation sticky dot votes



Initial Citywide Online Visioning Survey



This survey was a tool to capture a range of views and begin to identify areas of consensus and issues for further discussion and analysis.

Two opinion groups were identified, representing differing attitudes towards particular issues like vehicular infrastructure and housing policy. These groups tended to vote the same way on other issues.

Although opinion groups disagreed on several topics, they tended to agree on the majority of topics.

By the Numbers De acuerdo con las cifras

1,377
People Voted
personas votaron

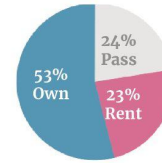
108,584
Votes Cast
votos emitidos

1,241
Statements Submitted
afirmaciones presentadas

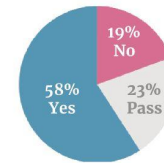
1,144
People Grouped
personas agrupadas

78.86
Votes per Voter
votos por votante

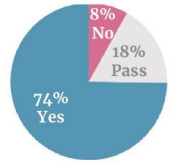
2.41
Statements per Author
afirmaciones por autor



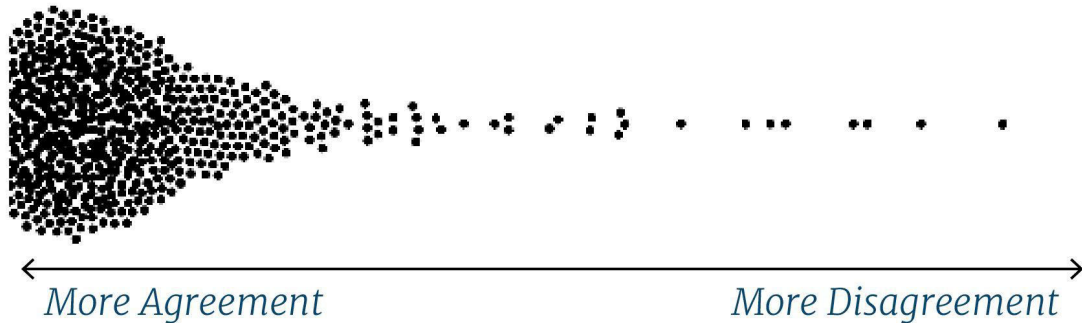
Do you rent or own?
¿Usted alquila o es propietario?
Compare this: ACS 2020 data reports that 58% of households rent. En comparación: la ACS de 2020 arrojó que el 58% de los residentes alquilan.



Do you work in Worcester?
¿Usted trabaja en Worcester?
Compare this: ACS 2020 data estimates that 55% of residents work in the city. En comparación: en la ACS de 2020 se estima que el 55% de los residentes trabajan en la ciudad.



Do you live in Worcester?
¿Usted vive en Worcester?



You can see the detailed results in the automated report on the Now | Next website's homepage: now-next.worcesterma.gov



Engagement Themes: Vision

What do you love about Worcester now?

The Cultural Diversity of Worcester

*Mentions: the diversity; cultural events; vibrancy; great people
"La beuna gente y el estilo de vida"*

Worcester's Public Parks & Indoor Places

Mentions: Library; Green Hill Park; Elm Park; Newton Hill

Worcester's Restaurants & Businesses

"You can get anything and everything locally without traveling a distance. You don't have to travel out of Worcester for anything"

Worcester Pride: The City's Unique Identity, Culture, People

"A sense of place, lots of residents have deep roots"

What do you want to see for Worcester next?

Create Safer, Higher Quality, Walkable Streets

"A city where kids and seniors who can't drive can get around"

More (Creative) Recreation Options

"Water parks!!!" "Long distance skate tracks & winter activities!"

Better Public Transit

"Fix the public transportation system so the buses are actually useable for people"

More Bike Lanes and Paths



Engagement Themes: Issues & Opportunities

Housing

Improve quality of existing housing

"We need deeper rehab for old housing stock. Better code enforcement for problem properties, and better education for landlords"

Increase housing supply and diversity

"We really need all types of units - we need a huge volume!" // "Build all types of housing. The more options available the better."

More affordable housing & support for homeownership

"More available, affordable and accessible housing." // "Rent to homeownership pipelines"

Transportation & Mobility

Make streets safe for all users

"I am interested in increasing safety for all roadway users." // "More bike lanes, pedestrian crossings and sidewalks." // "Streets within 1 mile limit for walking to school NEED sidewalks. If kids can't get a bus they shouldn't be forced to walk in the street."

Improve & expand public transit

"Increase development of transit between Worcester and neighboring towns. More transit options, better coordination with local transit" // "Without a car it's difficult, increase WRTA reliability." // "Improve the train service. Bring back heart to hub."

Economic Opportunity

Support a vibrant downtown

"A vibrant downtown active through the evening hours will be an asset to the entire city."

Support diverse neighborhood commerce

"Free up zoning laws to allow businesses within neighborhoods, preference toward small business development over chain stores." // "Maintaining the diverse small business in our city brings value to our community"

Invest in worker quality of life & training

"Affordable housing and good transportation can help us compete in the job markets with Somerville and Cambridge."

Other Topic Areas

Prioritize parks, playgrounds, and trees.

"Well maintained and accessible public parks and open spaces are crucial for a thriving and healthy city."

Invest in our children and schools.

"Worcester needs to invest in its schools and children. They are our future!"

Increase internet service provider options.

"Give us more options for broadband/fiber internet."

Improve trash and litter management.

"Make a clean Worcester a priority. Trash and litter are a major issue."



Validation of Draft Goals

There was overwhelming support for the draft goals, and some helpful comments on elements that should be added or addressed in the recommendations.

Housing / Viviendas



Economic Opportunity / Oportunidades económicas



Open Space & Environment / Espacios abiertos y medio ambiente



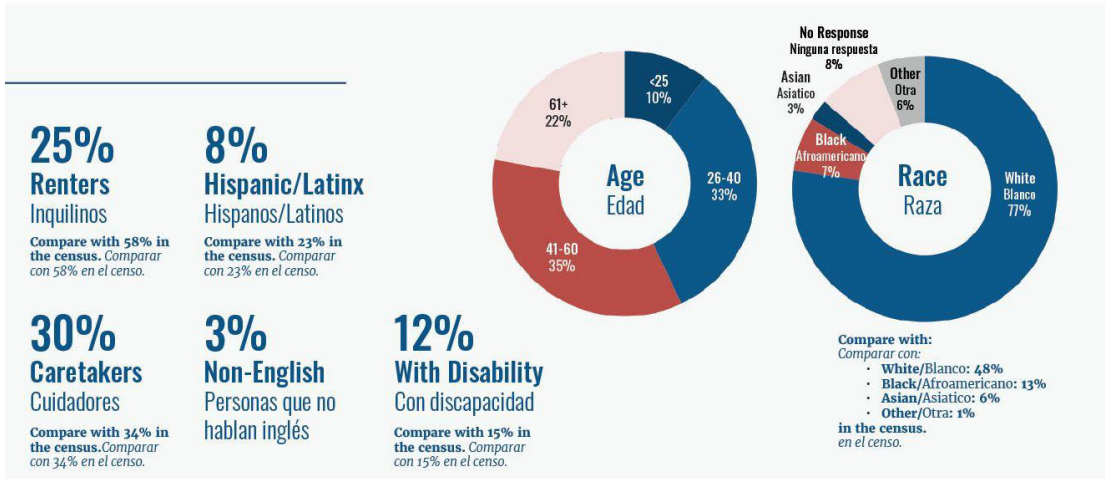
Transportation & Mobility / Transporte



Culture & Creativity / Cultura y creatividad



Services & Facilities / Servicios e instalaciones



Draft Plan Engagement



In-Person Public Draft Plan Workshop



Draft Plan May Library Exhibit

Draft Plan Overview

1. Plan Framework (Guiding Principles, Vision, Plan Headlines)
2. Growth Framework
3. Future Land Use Vision

Plan Framework

Vision Statement & Guiding Principles

Guiding Principles

Vibrant, Thriving City, Strong Neighborhoods, Opportunity for All, Sound Fiscal and Operational Government

- **Equity** - Being fair and just.
- **Resilience** - Able to survive and recover from shocks and stressors.
- **Inclusivity** - Including, supporting, and valuing all people, especially those who have historically been excluded.
- **Integrity** - Being honest, transparent, and accountable.
- **Innovation** - Encouraging thoughtful new ideas, methods or tools.

The Guiding Principles for Now | Next build directly from the Strategic Plan framework and vision, as well as the Green Worcester Plan.

Vision Statement

In Worcester's fourth century, we envision a **creative city of neighbors who value inclusion and celebrate diversity.**

We will uplift our city by **investing equitably in our communities, connecting our neighborhoods to opportunity, and prioritizing sustainable growth that supports improved quality of life for all.**



Plan Headlines

A Values-Centered Framework for Growth that Benefits all Community Members of Worcester

Worcester is growing and changing. The City needs a roadmap for how to grow in a way that addresses past harm done and reflects rather than undermines the community's values and goals. We heard that people want equitable, sustainable, and resilient transit oriented development; more diverse and affordable housing options that meaningfully address the housing crisis; and vibrant mixed-use neighborhood centers and corridors that are walkable and accessible to people of all ages and abilities.

How do we advance this?

- Rezoning/Zoning Modernization
- Mobility Action Plan (MAP)
- Infrastructure Needs Assessments

Equitable Public Investment in Worcester's Neighborhoods

There was widespread consensus that Downtown and the Canal District should continue to be critical areas of focus for planning, investment, programming, and creative development initiatives that support the vitality of the city's core. However, community input throughout this planning process highlighted the need for more coordinated land use and infrastructure planning and strategic investment in neighborhoods, corridors, and districts beyond the downtown core.

How do we advance this?

- Integrated & strategic local planning
- Rezoning based on planning
- Neighborhood center and corridor economic development
- Anti-displacement support
- Code enforcement
- Improve community participation and accountability in development process

A More Connected & Accessible City for All

Worcester is rich in assets, amenities, and community anchors. However, access to those things is uneven. Worcester's existing auto-dominant transportation infrastructure and associated investment gaps in other infrastructure, facilities, and services reinforce inequities in access and exacerbate public health and environmental justice concerns. This plan marks a turning point to begin creating a more connected city where economic opportunities, services, and amenities are accessible to all through coordinated land use and mobility planning.

How do we advance this?

- Walkability & Accessibility Improvements
- Transit Operations and Priority Corridors
- Blue/Green Bike Network
- Link land use & transportation via zoning

Through the MAP planning process, the City will identify and prioritize the mobility investments needed to align with and support the densities and land use mix envisioned in the Growth Framework.

Growth Framework

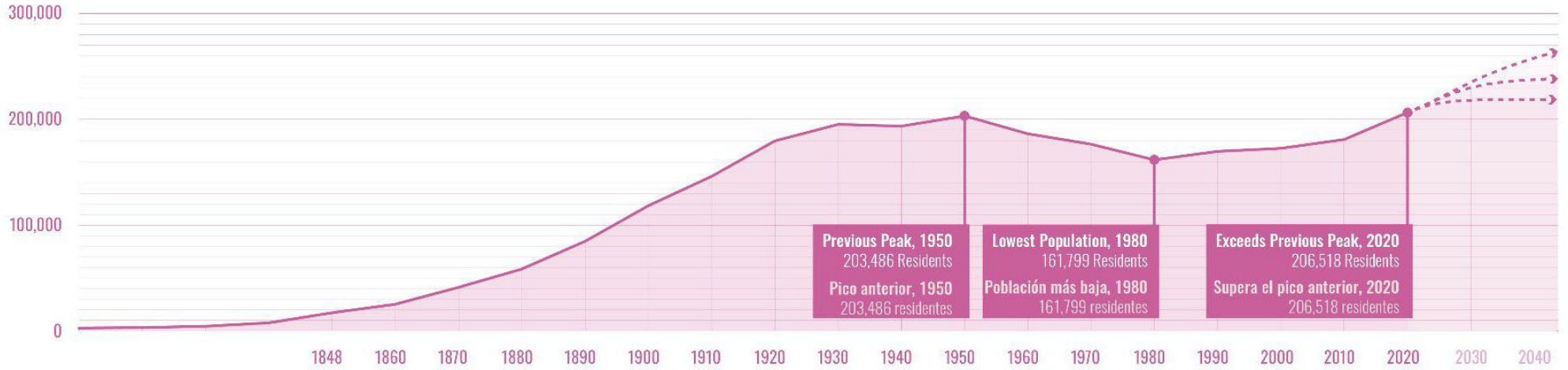
Worcester is growing and changing....

So we developed a method to plan for a range of scenarios for how much, how, and where Worcester might grow - and how zoning can support that growth.

Worcester gained over 25,000 people in the last ten years. This represents a 14% increase, and surpasses Worcester's previous peak population.

If we look ahead to 2040, the high end of projected population growth for Worcester could be:

- **60,000+ new residents**
- **20,000+ new units of multifamily housing** would be needed to house this many people within the City of Worcester



Source: US Census

Growth Framework & Growth Area Types

This framework is intended to steer growth where it makes the most sense, and has the greatest potential to meet community goals. By steering growth to places that are (or have the potential to be) well served by transit, and encouraging clusters of complementary amenities, services, and infrastructure in those places, we can create a more accessible, equitable, sustainable, resilient, and vibrant Worcester.

Identification of these areas was generated through an iterative process with extensive input from the Advisory Committee, Working Groups, and the public. There was a lot of time and discussion on this and the importance of steering growth to places where it is a win-win-win.

How will this be used?

- To inform the density and use mix allowed in future zoning for the City of Worcester

Transformative Growth Areas

Areas identified for significant reinvestment and physical transformation through focused city and private stakeholder actions. These areas have the potential for high walkability and transit access and can support substantial job growth and/or higher density housing with complementary commercial uses.

Transformative Growth Areas will be prioritized for:

- Coordinated public and private capital investments in infrastructure, services, and facilities
- District-scale planning to define more detailed goals and community needs in each area.

Infill Growth Areas

Areas identified for mixed-use infill development with high walkability and transit access.

Managed Growth Areas

Areas within a 1/4 mile walk of existing and potential future transit corridors that can support moderate increases in housing density from what is currently allowed by zoning.

Growth Areas

This framework is intended to steer growth where it makes the most sense, and where it can benefit Worcester the most. Identification of these areas was generated through an iterative process with extensive input from the Advisory Committee, Working Groups, and the public.

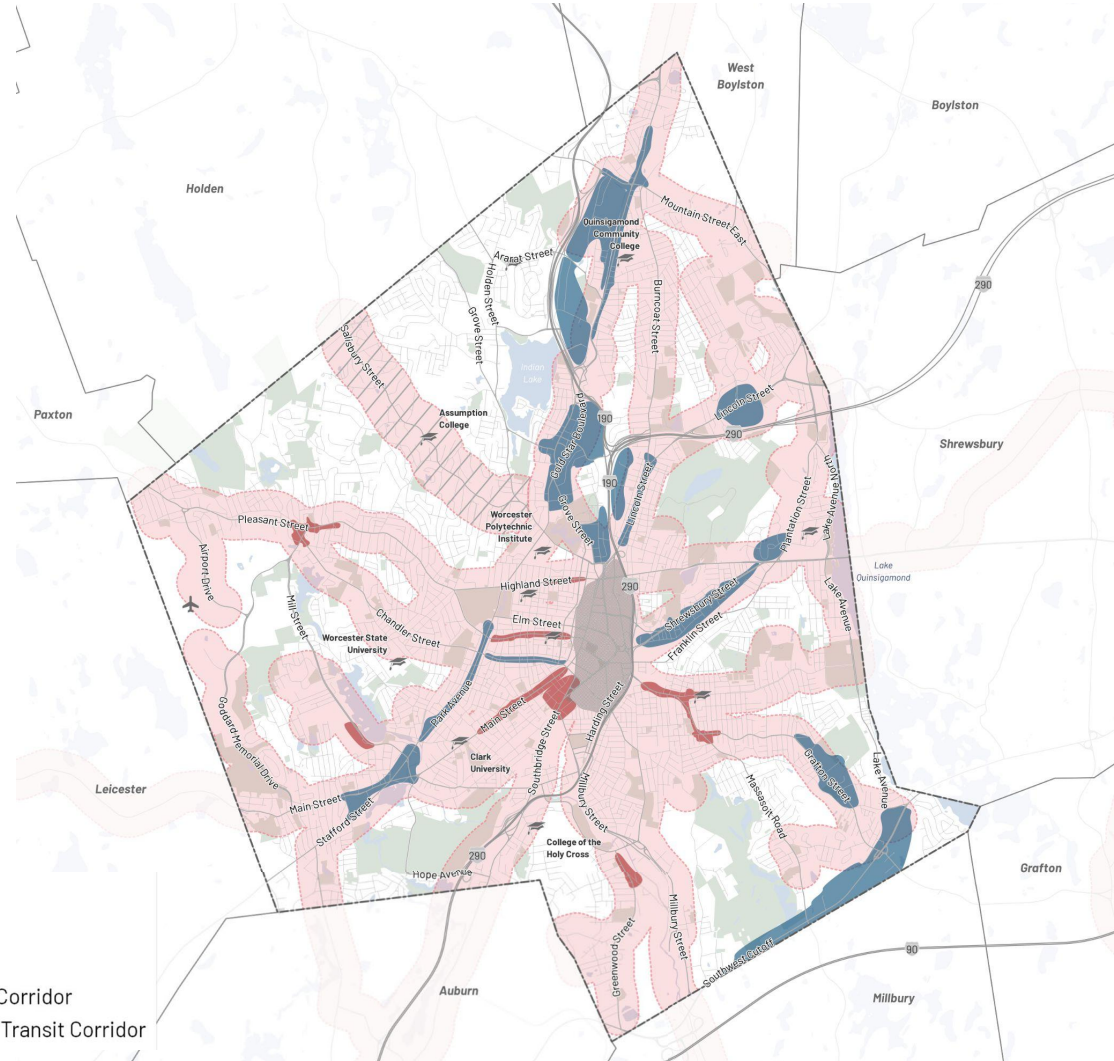
Transformative Growth Areas

- Higgins Industrial Park
- Greendale Revitalization Initiative
- W Boylston St Corridor
- Rockdale St District
- Gold Star Blvd Corridor
- W Boylston - South
- WPI Area
- Crescent St Industrial Area
- Lower Lincoln St Corridor
- Reactory BioManufacturing Park
- Shrewsbury St Corridor
- Chandler St Commercial Corridor
- Park Ave Corridor
- Mill St Commercial Corridor
- Greater Webster Sq
- Grafton St East
- Rt 20 Corridor
- Lincoln Plaza

Infill Growth Areas

- Tatnuck Square
- Highland St Corridor
- Pleasant St Commercial Corridor
- Grafton St Corridor
- Main St Corridor
- Beacon/Brightly District
- Quinsigamond Village

- Downtown / Canal District
- Transformative Growth Area
- Infill Growth Area
- Managed Growth Area – Existing Transit Corridor
- Managed Growth Area – Potential Future Transit Corridor



Future Land Use Vision

Why are we specifying land use vision?

- Encourage mutually beneficial mixes of compatible/complementary uses (e.g. housing and retail)
- Reinforce protections and separation where it is needed (e.g. buffering housing from higher impact industrial uses)

Growth Area Future Land Use Vision Categories

Anchor vs. Complementary Uses:

All categories allow for mixed use, but with different anchor uses and complementary uses.



Mixed Use

Anchor: active commercial ground floors (retail, entertainment, and services like banking, barbers, or dry cleaning).

Complementary: residential and office upper floors.

Life Science

Anchor: healthcare providers, scientific research, and development lab uses.

Complementary: retail, commercial, hotels, educational institutions, and limited residential.

Artisan

Anchor: small, low-impact creative producers (e.g. fashion, furniture, food and beverage).

Complementary: retail, commercial, hotels, and limited residential.

Industrial

Anchor: larger producers and distributors that are dependent on larger trucks, highways, and rail.

Complementary: limited retail and commercial serving area businesses/employees.

Growth Area Future Land Use Vision

Existing vs. Future Use: In many cases, there is a strong existing use mix that differs from the identified land use vision – this vision is inclusive of those existing uses and envisions how that use mix can evolve over time to better take advantage of the unique patterns, adjacencies, and potential of each growth area.

Mixed Use

- Downtown / Canal District
- W Boylston - South
- Lower Lincoln St Corridor
- Shrewsbury St Corridor
- Chandler St Commercial Corridor
- Park Ave Corridor
- Greater Webster Sq
- Lincoln Plaza
- Tatnuck Sq
- Highland St Corridor
- Pleasant St Commercial Corridor
- Grafton St Corridor
- Main St Corridor
- Gold Star Blvd Corridor
- Quinsigamond Village
- Grafton St East
- Mill St Commercial Corridor

Life Science

- WPI Area
- Reactory BioManufacturing Park

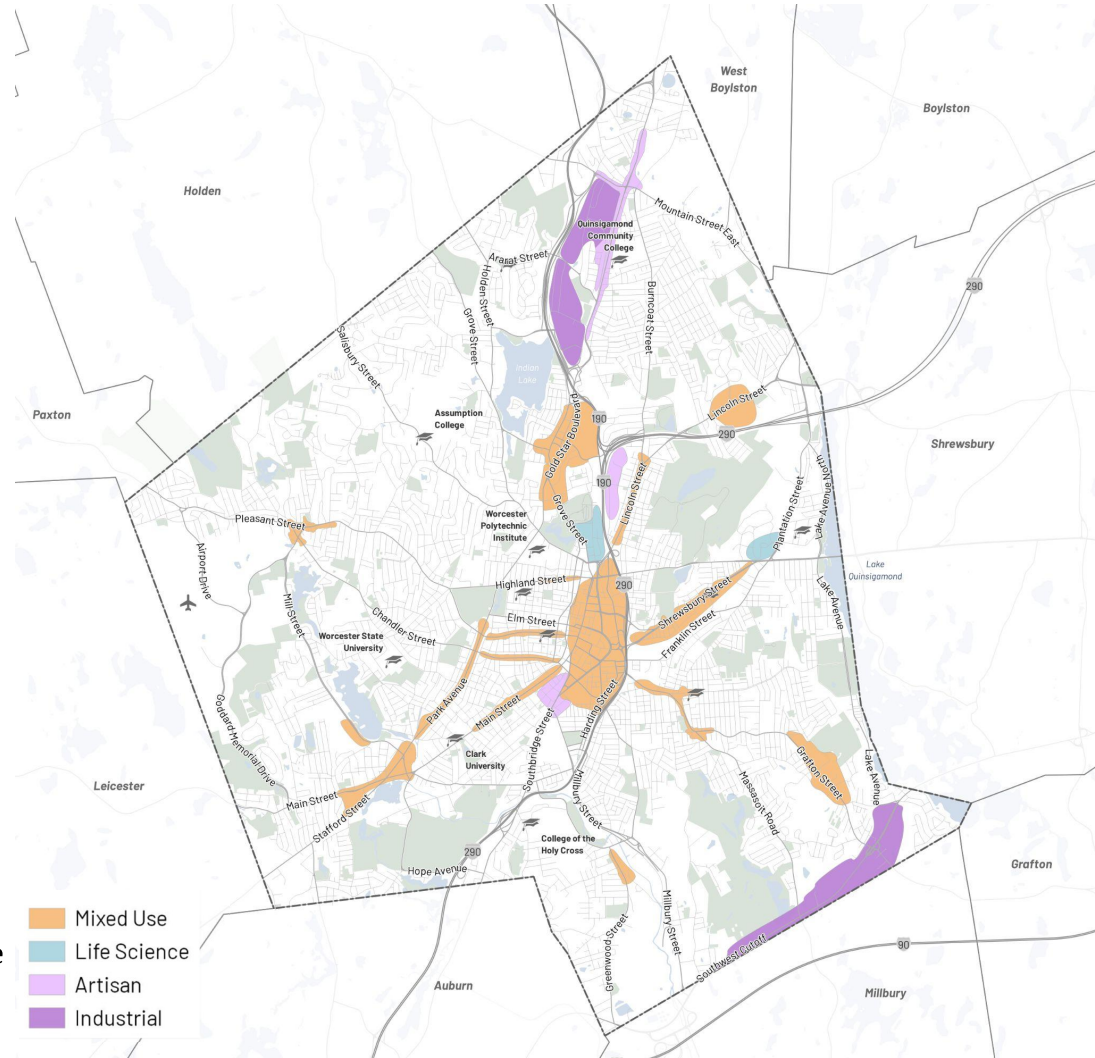
Note: the Canal District has some opportunity for Life Science, but is predominantly Mixed Use.

Artisan

- W Boylston St Corridor
- Rockdale St District
- Crescent St Industrial Area
- Beacon/Brightly District

Industrial

- Higgins Industrial Park
- Greendale Revitalization Initiative
- Rt 20 Corridor



Implementation Approach

1. Top-Priority Early Actions
2. Approach to Monitoring, Reporting & Future Prioritization



Top-priority Early Actions

These are listed roughly in order of the expected sequence of implementation. Most are already underway in some form.

1. Mobility Action Plan (MAP) Completion & Implementation

Complete and implement the citywide Mobility Action Plan, which will identify and prioritize more specific capital, operational, and programmatic projects to advance safe, equitable, and sustainable transportation in Worcester.

2. Pre-Overhaul Zoning Changes

Several zoning ideas make sense to implement in advance of a zoning overhaul:

1. **Legalize Accessory Dwelling Units (ADUs)** citywide with dimensional standards. Note: A proposal is pending before the Planning Board on 11/15.
2. **Decrease parking requirements** to reflect Worcester's urban environment.
3. **Reform requirements to protect existing tree canopy on private lots** to reduce tree removals.

3. Develop a Housing Production Plan

Create a Housing Production Plan to identify specific areas of need. This was funded recently by a State grant.

4. Departmental Implementation Capacity Advocacy

Advocate for the City of Worcester staff and resources needed within the EOED and ISD to effectively lead implementation of the zoning overhaul and the many other worthwhile initiatives identified in this plan, such as funding and initiating neighborhood and district-scale planning efforts in identified Growth Areas.

In order to keep up with baseline operational obligations (e.g. enforcement and compliance monitoring), as well as these new long-range planning priorities, there is a need for more staff capacity to lead in-house efforts and manage consultants on special projects that require external expertise.

5. Infrastructure Capacity & Need Assessments

Assess capacity and needs for electric, stormwater, and sewer infrastructure to assess current capacity and the investments needed to support desired development and growth.

6. Citywide Zoning Overhaul

Secure resources to lead a comprehensive zoning overhaul to align the City of Worcester's base zoning with the Growth Framework and Future Land Use Vision.

This overhaul should also result in more user friendly, digital, and visual zoning code with modern dimensional standards, land uses, and public process expectations, heavily incorporating elements of a form-based code.

This is expected to be a 3 year process at minimum and so will require consistent investment over a multi-year period.

Approach to Monitoring, Reporting & Future Prioritization

Future Prioritization

We suggest that the Top-Priority Early Actions are the primary focus for the next 3-5 years, roughly in this order:

1. Mobility Action Plan (MAP) Completion & Implementation
2. Pre-Overhaul Zoning Changes
 - a. *Legalize ADUs Citywide*
 - b. *Reduce Parking Requirements*
 - c. *Reform Tree Protection Requirements*
3. Develop a Housing Production Plan
4. Departmental Implementation Capacity Advocacy
5. Infrastructure Capacity & Need Assessments
6. Citywide Zoning Overhaul

Once these five top actions have been completed, the Now | Next plan should be revisited and the remaining recommendations should be prioritized for implementation.

Monitoring & Reporting

We suggest that the Now | Next plan be used as a guide to evaluate projects, as they arise, for alignment with Worcester's future goals.

Informal Staff reporting to the Planning Board on plan implementation progress annually can support ongoing awareness and accountability.

Indicators

We plan to incorporate into the implementation chapter of the final plan document a series of indicators or prompts that can be used to evaluate whether progress is being made towards the goals laid out in the plan. These indicators can also be used as a way to evaluate if a particular action is in alignment with the plan or not.

Thank You!



Now | Next
Worcester's Citywide Plan

<https://now-next.worcesterma.gov/>



Statement of the Green Worcester Advisory Committee – January 8, 2024

proposal by Ted Conna

The Green Worcester Plan is ambitious--as it needs to be. The GWAC believes that DSR is doing an excellent job executing the Plan--the best it can do with the resources it has. However, GWAC believes that to fully implement the Plan on schedule, the City will need to find ways to devote more resources to some of the Plan's key goals.

GWAC is concerned that more will be needed to achieve the Plan's benchmark climate goals:

- 1) 100% renewable/net-zero by 2030 in municipal buildings: Municipal building emissions are down 16% in about 10 years +/-, with 84% to go in 7 years. Municipal buildings may be a small fraction of the big picture, but they are also a bellwether for the much larger goal #3, because the City controls them and does not have the added challenge of dealing with private owners. If the City doesn't walk its own talk, how will we get private parties to do so? The note in Chapter V.1 says, "*Where feasible*, the City will electrify its existing buildings during renovation projects." This sounds reasonable, of course, but what does "where feasible" mean? We need to figure out how to *make* sustainability feasible—otherwise, we will fall short of the goal.
- 2) Provide 100% renewable electricity citywide by 2035: The City may be on track to achieve this, by ramping up the renewable content of the standard ElectriCITY aggregation program (currently 40%) with each new contract. What is beyond the City's control, however, is whether ratepayers will continue to choose it. It won't do as much good if large numbers opt out. In order to maintain enrollment, it may be necessary to control cost.
- 3) 30% renewable energy for heating and transportation citywide by 2030, 100% by 2045: This is the mother of all our climate goals. It is hard to tell if we are on track, because the City's efforts toward achieving this goal are in their infancy. What is clear is that converting 30% of the City's building stock to renewable energy in the next six to seven years (4 to 5% per year) will be a heavy lift. And, as mentioned above, the City's progress toward conversion of its own building stock is a bellwether.

GWAC recognizes the major challenges ahead, but also sees this moment as a huge opportunity for Worcester. Sustainability is unavoidable, and even if we did nothing, eventually free market forces would push us all in that direction. But there will be huge benefits to Worcester if the City continues to make good on its intention to lead the way. The Plan talks about all the co-benefits of sustainability in the realms of health, equity, and prosperity, and it's worth remembering them now.

Therefore, GWAC urges the City to consider the following when deciding what resources to allocate to sustainability:

- DSR will need more resources, and will need to leverage more resources, directly and indirectly.
- Sustainability must become ingrained in the goals, programs, and projects of other City departments besides DSR.
- Spending on sustainability is money well spent, justified by energy cost savings, by other avoided costs, and by other co-benefits. And we need good, efficient metrics to quantify all that.
- Worcester will reap multiple benefits from its leadership on sustainability: in quality of life, in public health and safety, in equity and environmental justice, in avoided costs, in workforce development, and in our starring role as a center of expertise and innovation.

Like it or not, we are in a changing world where fossil fuels are becoming obsolete, and they will be phased out because both our prosperity and our survival depend on that. Those who prosper in changing times are those who see where the market is headed, get out ahead of the changes, and lead the way for others. The best thing Worcester can do for its businesses, workforce, and residents is to give them all the advantages that will follow from the realization of the GWP's sustainability goals.