



Watertown City Council

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Climate and Energy Meeting May 2, 2024

The Climate and Energy committee convened on May 2, 2024, at 5:30 pm in the Richard E. Mastrangelo Council Chamber as a hybrid meeting with remote participation via zoom. The purpose of the meeting was to get an update on the implementation of actions regarding the Climate Action Plan. Also on the agenda was a discussion of a Tree Ordinance. Present were Tony Palomba, chair; Caroline Bays, vice chair; and John Airasian, secretary. Other Councilors and Staff present in the room were Councilor Vincent Piccirilli; Sylas Fyler, Energy Manager; Laurel Schwab, Sustainability Program Manager; Mike Micieli, Tree Warden; Doug Newton, Policy Analyst; Katie Swan, Environmental Planner. A list of other attendees in person and online is listed as Attachment A.

Laurel and Sylas began with the presentation and listed as Attachment B. Continued progress is being made with the CAP. A new Sustainability Team within the Department of Community Development and Planning has been created. There is also ongoing collaboration with Sustainable Middlesex. Being involved in this allows staff to seek and give advice on sustainability programs and policies throughout Middlesex County. Staff continues to work on electric vehicle charging infrastructure as well as transition of the city's fleet from gas/hybrid to electric.

Staff is working on applying for Climate Leader Community designation which is a new version of the Green Communities program and will be of benefit when applying for grants. The Miyawaki forest project is continuing as planned. There is also a plan to plant 360 trees in 2024 (180 per season) with a priority given to areas at risk for urban heat impacts. The recent Recycle Audit found that about 10% of each route had recycling contamination. A new cardboard compactor at the recycling center has decreased the need for trucks hauling from 4/week to 2 times per month. Looking ahead, the city is launching an EV charging infrastructure and fleet transition study, launching a comprehensive "sustainable procurement policy" with relevant City departments, looking to introduce BERDO, Recycling Ordinance and a Tree Ordinance.

There was one email from Deb Peterson and is under Attachment D

Tree Ordinance Discussion

Next, a presentation was made by Mike Micieli regarding a tree ordinance. The full presentation is listed on these minutes as Attachment C.

A tree ordinance works to regulate the removal of trees from public and private property as well as educate the public and preserve trees with removal being the last resort. Some things that are considered when writing a tree ordinance are DBH (diameter at breast size), setting a fee structure, exemptions for property size among others. Some aspects of a tree ordinance are already in place such as, The Stormwater Management and Erosion Control ordinance triggers a site plan review process, survey of site conditions and trees with DBH of 6", landscaping plans on construction details given to the city, city maintains publicly owned shade trees as well as maintaining and pruning young trees. Following the presentation, there were some comments which can be seen on the WCA-TV broadcast here.

<http://vodwcatv.org/CablecastPublicSite/show/3159?site=3>

Councilor Palomba mentioned that there will be a meeting around every 6 months to continue with updates to the CAP unless there were other pressing matters. Councilor Bays Made a motion to adjourn, second by Councilor Airasian. Meeting adjourned at 7:15 pm.

Attachment A

List of In Room Meeting Attendees other than already listed.

Deborah Peterson

Roy Dobbs

Lise Paul

Ernesta Krackiewicz

Attendees online

Bron Sutherland

Libby Shaw

Steve Steadman

Donald MacDonald

Susan Falkoff

Brian Hebeisen

Cabell Eames

Mike Albano

Josh Rosmarin

Deb's iphone

Jessica Grimsby

Amanda Peacock

Attachment B

CAP Presentation

Attachment C
Tree Ordinance Discussion

Attachment D – Deb Peterson email

I want to commend the City for all it is doing to reach our climate goals and look forward to the report at the upcoming meeting of the C&E Committee. I do find the report by the City (see example from August review attached) of its actions limits the scope of review and would like to see a discussion about how to get at items and emerging opportunities that may not be in the plan.

I have 4 items I would like to see covered. Perhaps there could be a conversation about how to incorporate these items in the review. What do you think is the best way to intro this idea to the Committee.

The 4 items I am particularly interested in raising in the area of transportation are:

1. Vision Zero 9 25 mi/hr speed limits – which are in B8ke Ped Plan, Comprehensive Plan and C&E Plan
2. Climate Leader Status This is a state designation that makes us eligible for grants. We are close to eligibility but need a formal policy to buy electric vehicles where possible to qualify.
3. Update the TDM Ordinance. Requirements need to be brought in line with our climate goals. It is a powerful tool for getting cars off the road that applies to all new development and delay would mean missed opportunities.
4. Incorporate bus priority lanes and other features in the Arsenal Street Reconstruction. A recent [report](#) by Transit Matters regarding the 70 bus states that MBTA is interested in pursuing bus priority and other infrastructure along Arsenal Street.

“However, other key corridors, such as Arsenal St. in Watertown, could use bus priority such as bus lanes and TSP. The MBTA also identified Arsenal St. and Western Ave. as areas that could use infrastructure upgrades in their Bus Priority Vision report highlighting the need for these corridors to see improvements.”

In addition to these four items, I know there are other actions the City is taking that may not be included in their report. In a recent meeting about parking requirements in Lexington, we heard about reduced parking requirements negotiated by the City on recent developments. Reducing parking minimums has been one of the underpinning items we have been advocating for and I think these meetings are an opportunity for the City to share this and other actions that is taking. Among these would also be an application for pilot microtransit and ARPA funding for a transportation plan that we see as moving our climate goals further. It would be great to incorporate updates on these initiatives as part of the City report. What is the best way to incorporate a broader scope for your review.

ELECTED OFFICIALS

Anthony Palomba,
Chair

Caroline Bays,
Vice Chair

John M. Airasian,
Secretary



Laurel Schwab

Sustainability Manager

Silas Fyler

Energy Manager

Michael Micieli

Forestry Supervisor



Watertown City Council Subcommittee Meeting, May 2, 2024

Resilient Watertown Climate & Energy Plan:
Implementation Update



Agenda

1. Introduction
2. Strategy and Action Updates as of May 2024
3. Next Steps
4. Tree Ordinances: General Overview



Plan Elements and Organization

- Each Plan Element follows the structure:
 - Goal: what we want to accomplish; broad statement
 - Strategy: How we will accomplish it as a general approach
 - Action: *Specific activity that will be undertaken*
 - Action
 - Etc.
- Each Plan Element has quantifiable metrics for tracking our progress
- For every Action we identify a lead entity, cost magnitude, timeframe, and contribution to mitigation, resilience, or both
- 45 of 62 Actions are currently underway or complete.





Tracking Our Progress

- Staff will be working to gather updated data for our plan metrics over the next 6 months
- Some data sources are only released periodically (Census, for example) but we will do our best to get a sense of how we are doing
- By January 2025 we will be halfway to the 5-year implementation mark, when the plan will go undergo a substantial re-evaluation to update actions and targets according to new trends, technologies, and issues

Buildings and Energy						
Metric	Unit	Baseline Year	Baseline	2030 Target	2050 Target	
Percent of income spent on energy for household within 0% to 30% of AMI	%	2018	16	8	2	
Enrollment in Watertown Electricity Choice	%	2019	82	82	100	
Enrollment in Watertown Electricity Choice (100% renewable option)	%	2019	3	3	100	
Potential solar capacity	Number of rooftops	2019	3209	4256	6700	
Installed solar capacity	kW	2021	4521	33600	112000	
Estimated total solar electricity	MWh	2021	5360	38400	128000	
Commercial energy use intensity (EUI). For buildings >5,000 sf	MMBtu/sq. ft.	2023				
Number of gas/oil heated residential properties	Number of gas/oil Res	2019	9625	5775	0	
Number of gas/oil heated commercial properties	Number of gas/oil Com	2019	521	312	0	
Transportation and Mobility						
Metric	Unit	Baseline Year	Baseline	2030 Target	2050 Target	
Residents who use sustainable mode (bike, walk, transit) to travel to work	%	2013-2017	2	5	6	
Roads rated at a 4 or 5 stress level	# of miles	2018	6.9	3.5	0	
Total electric vehicles	%	2020	7	54	100	
Population within a 1/2 mile radius of a public EV charging station	%	2021	23	100	100	
Number of publicly accessible EV charging stations	#	2021	17	575	1050	
Natural Resources						
Metric	Unit	Baseline Year	Baseline	2030 Target	2050 Target	
Open space per person	acres/1,000 people	2020	3.25	5	10	
Tree canopy coverage	%	2016	21	23	27	
Impervious surfaces	%	2016	57	55	50	
Public Trees in Good Health	%	2018	84	90	100	
Public Trees Sites Occupied	%	2018	49	75	100	
Area (sf) of school gardens and community gardens	sf	2021	20350	24000	30000	

Snapshot of metric tracking spreadsheet staff will utilize



Cross-Cutting Strategy Updates

- CC1: Add capacity and resources to the Energy Manager's Office, DPW Forestry Division, and DCDDP in order to successfully implement the plan
 - *Creation of new Sustainability Team within DCDDP*
 - *Hiring for a full-time Energy Advocate*
- CC2: Create an overarching Resilient Watertown Outreach and Education Campaign
 - *See next slide*
- CC4: Collaborate regionally with other communities and entities
 - *New collaboration with Sustainable Middlesex to both seek and give advice on sustainability policies/programs that municipalities around the county are working on*
 - Ongoing: Resilient Mystic Collaborative; Charles River Climate Compact; MAPC Metro Mayors Coalition; Multi-town gas leaks working group; statewide Building Electrification Accelerator; Charles River Chamber Environmental Committee; Zero Carbon MA
- CC6: Encourage and require sustainable, climate-resilient development patterns
 - *Watertown Square Plan process (wrapping up) will serve as a pilot for these changes; zoning update to be completed by end of 2024*



Outreach & Education Updates

- CC2: Create an overarching Resilient Watertown Outreach & Education Campaign (Actions BE1.3, BE3.2, TM1.3, NR2.2, NR3.1, NR3.2, NR4.3, IW1.2, PH1.1, PH3.3)

New since January:

- *WE3C Outreach Working Group focusing on transitioning Resilient Watertown website onto City Website for enhanced flexibility of content and better searchability*
- *Tabling at Farmers Market the fourth week of every month for the 2024 season*
- *Created publicly available pollinator garden map and giving free yard signs to residents who elect to be placed on the map (as well as Life-Friendly Garden Tour hosts)*

Other items still ongoing:

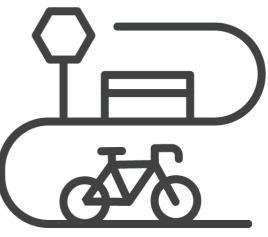
- Resilient Watertown newsletter currently sending informational emails every other month
- Re-pledged the Mayor's Monarch Pledge for 2024
- Installing pollinator garden signage and informational tags on newly planted street trees
- Arts and Culture tie-ins with "Edible Watertown" programming
- Coordinating with WE3C, Stormwater, Bike/Ped, and Solid Waste Advisory Committees, Live Well Watertown, Hatch Makerspace, Watertown Pollinator Pathways, Trees for Watertown, etc.

Buildings & Energy Updates



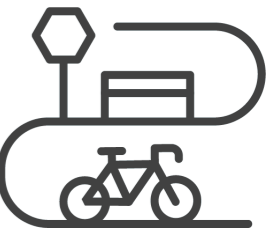
- BE 2.1: Adopt the state's net-zero energy standard as soon as permissible
- BE 2.2: enact fees for residential gas hookups to promote electrification
 - Municipal Policy Analyst conducted research about ongoing state pilot program; waiting for results
- BE 3.3: Incentivize the transition to heat pumps
 - Staff met with sustainability managers in Arlington, Lexington, and Belmont to learn about their experiences launching heat pump campaigns and utilizing Energy Coaches
- BE 4.1: Enact a Building Energy Use Disclosure Ordinance with a reporting requirement
 - WE3C voted to support draft bill at their March meeting; submittal to Council forthcoming
- BE 4.3: Upgrade major existing municipal facilities to achieve net zero energy performance
 - Launching a utility-sponsored deep energy study through National Grid for Parker Annex and City Library
 - Staff is working on applying for Climate Leader Community designation from DOER (new version of Green Communities program). This will require an initial plan on how the city municipal and school system will achieve net neutrality by 2050. For buildings this will be Zero Over Time approach (ZOT) policy and for vehicles this will be Zero Emission Vehicle First (ZEV) policy

Transportation & Mobility Updates



- TM 1.1: Install well-shaded bike/ped-only infrastructure, especially in densely developed areas and areas of high traffic volume
 - Watertown Square Area Plan – Public Meetings & Forum on 2/29/24 & 4/4/24, the culmination of the public engagement process plus design team iterating conceptual designs. Updates/refinements to sidewalk-level cycle tracks, ped/bike paths, and connecting sections along Community Path with low stress, high quality bike/ped facilities
 - Galen St bike/ped facilities nearly complete- sidewalks reconstructed, Bluebikes station pad poured, ped signal push button improvements
 - Procurement/pending installation of Bluebikes stations, including at 99 Coolidge Ave, 66 Galen St & Arsenal on the Charles
 - Safe Streets for All grant discussions for various bike/ped-only improvements and mitigations on roadways
 - More coordination relaunched (not yet at implementation) of crosswalk & ped/bike improvements at Main & Whites
 - Coolidge Ave bike/ped path under construction: ped/bike markings being painted, wayfinding signs getting installed, crossings/conflict study
 - Progress on disbursement of Community Connections grant for Watertown/Newton/Arlington Bluebikes stations
- TM 1.2: Collaborate regionally to increase and improve pathways for bikes and pedestrians
 - Continued coordination with MBTA on incorporating bike/ped infrastructure within their projects along Arsenal, Pleasant, and in the Squares
 - Discussions with Boston Region MPO, CTPS & MassDOT on a regional Vision Zero Action Plan participation
- TM 1.3: Increase use of transit, bike, and pedestrian travel through outreach, incentives, and policy changes
 - Bicycle parking zoning regulations (ordinance) and guidelines being written
 - Mt Auburn St complete street public outreach kickoff
 - Bike-Ped Committee events: Get Out Your Bike, YardArt bike ride, and other education & outreach to foster community
 - Expansion of transit options including carshare, carpool/vanpool, and shuttles in coordination with TMA and new development projects
 - Expansion of bikeshare stations in progress for 2024 season
 - Discussion of local potential Vision Zero-related mitigations
- TM 1.5: Implement bus prioritization projects
 - Watertown & MBTA discussing Watertown Square Area Plan mitigations, including potential queue jumps, transit signal priority & bus lanes
- TM 1.6: Develop an integrated, publicly accessible electric transit system that connects to MBTA
 - Preparing to launch study on City-supported local transit, including microtransit
 - Pleasant St Shuttle EV fleet – continued progress on sustainable funding and increased ridership on electric shuttles
 - Submitted (as sub) for a congestion relief grant that includes new Bluebikes stations (including potential electrified station)

Transportation & Mobility Updates



- TM 2.1: Develop and implement an EV Roadmap for Watertown
 - Drafting RFP for EV charging infrastructure and City fleet transition study
- TM 2.2: Transition all City-owned, leased, and contracted vehicles to electric, including school bus, garbage truck, and maintenance fleets
 - DPB was awarded a voucher from the Federal Department of Energy for \$76,220 to help purchase two electric vans, with one already delivered. Two fleet EV charging stations were installed at Parker Annex for these vehicles (not open to public)
 - Developing an internal Zero Emission Vehicle First (ZEV) policy (mentioned earlier) as part of Climate Leader Communities process for DOER


Natural Resources Updates

- NR 1.1: Incorporate pocket parks into neighborhoods lacking green space
 - [Developing an RFP for a pocket park study](#); DPW has done an initial investigation of “paper streets” as potential sites
- NR 1.2: Promote biodiversity improvements to existing and new parks and open space
 - [Considering contract for an invasive species management plan as well as a specialty landscaping bid for pollinator gardens, rain gardens etc](#)
 - [Miyawaki Forest project is continuing](#); installed Yard Art at the site for duration of April 2024 and held “Community Info Party” on April 30th; will be conducting additional outreach and volunteer recruitment through summer . Planting is planned for Fall 2024. See image of artwork below.
- NR 1.3: Acquire more open space, where possible, and create more open space on private property
 - [Walker Pond: City Council has approved CPA funding](#); [Ecological assessment to start summer 2024](#)
- NR 1.4: Establish and protect natural habitat corridors along water bodies, trails, and easement areas
 - [WCG group is again focused on removing invasive plant species along Watertown-Cambridge Greenway in 2024](#); they are now part of DCR’s volunteer stewardship program with a formal agreement
- NR 2.1: Establish an enforceable tree ordinance
 - [Draft phase \(more information later\)](#)
- NR 2.3: Increase tree plantings and prioritize plantings in areas at risk for urban heat impacts
 - [Planning to plant 360 trees in 2024 \(180 per season\)](#)
- NR 3.2: Utilize school gardens and community gardens as nature-based landscaping demonstration sites
 - [ACR Garden Intern program for middle school students continuing for summer ‘24](#)
- NR 4.1: Expand and accelerate existing Green Stormwater Infrastructure (GSI) policies and management programs for public projects
 - [Staff submitted an MVP Action Grant proposal for Phase 2 of the Community Greening Program, which aims to add green infrastructure on neighborhood streets in areas most vulnerable to climate impacts \(heat and flooding\). Awards are announced July/August](#)
- NR 4.3: Enhance incentives and ongoing education related to individual actions such as rain barrels, planting strips, and de-paving private residential properties
 - [Watertown Pollinator Pathways is encouraging residents to populate their planting strips via a new brochure](#)




Infrastructure & Waste Updates



- IW 1.2: Design and implement an education and outreach campaign focused on reducing waste
 - Recycle Audit found opportunities for improvement; findings available on City website. Observation found that about 10% of each route contains recycling contamination.
 - New recycling informational stickers available at the DPW—staff will put these on bins through the next few months
- IW 1.3: Create convenient and free organics recycling program 
 - Enrollment still around 3,000
- IW 1.4: Establish an Environmentally Preferable Purchasing policy (EPP) that focuses on reducing consumption within municipal government
 - Municipal Policy Analyst conducting research; will be part of larger “sustainable procurement policy”
- IW 1.5: Investigate opportunities to pursue a circular economy in Watertown or within the Metro
 - New cardboard compactor at the recycle center—already decreasing our need for trucks hauling it from 4 haulers per week to 2x a month! Saving on gas and transportation
 - Recycle and Solid Waste Committee is working on a letter to the Manager in support of moving the recycling ordinance forward to council
- IW 2.1: Require all major new and upgraded infrastructure to incorporate resilient design guidelines
 - Staff conducting initial research on policy updates required and whether technical assistance is needed

Public Health & Community Preparedness Updates



- PH 2.1: Complete and climate change and health vulnerability assessment
 - Staff was awarded a technical assistance grant from MAPC and held kickoff meeting in April 2024. MAPC public health staff will help us identify populations most vulnerable to health impacts of climate change, identify barriers or gaps in resources, and recommend policy changes to address those barriers/gaps. Anticipating a 1-year timeline.
- PH 2.2: Mitigate existing and prevent new urban heat islands in Watertown
 - Staff submitted an MVP Action Grant proposal for Phase 2 of the Community Greening Program (mentioned earlier)
 - Staff is participating in MAPC Cool Roofs Advisory Group to promote adoption of cool roofs within the MMC region by developing resources and identifying suitable locations on municipal buildings
- PH 2.3: Continue to enhance access to local food for those who are food insecure
 - Community Wellness PM is working with MAPC to establish a food access working group and reduce barriers to utilizing Farmer's Market SNAP Match and free produce bags in the off-season
- PH 3.2: Require all commercial building owners to rebroadcast and post Watertown Alert announcements to occupants in both English and Spanish
 - City developing translation policy
- PH 3.4: Enhance emergency preparedness information on City website 
- PH 4.2: Enhance the existing Live Well Watertown coalition and its programs to incorporate neighborhood connections to nature and to each other
 - Live Well Watertown has added a “Community Connect” initiative that supports efforts to encourage the development of neighborhood groups to intentionally connect people for practical and social/community building purposes



Looking Forward

- Launch EV charging infrastructure and fleet transition study
- Launch comprehensive “sustainable procurement policy” effort with relevant City departments
- Introduce BERDO, Recycling Ordinance, and Tree Ordinance legislation to Council
- Notice of MVP Action Grant awards in July/August



City of Watertown

Tree Ordinance Discussion



What is a tree ordinance?

- A tree ordinance works to regulate the removal of trees from public and private property
- It can establish replacement minimums or in-lieu fees for tree removal.
- A tree ordinance can set a DBH threshold for minimum size requirements of trees to be included.
- They can establish fines for non-compliance.
- They can set thresholds for impacted properties and create exemptions.
- Looks to educate the public and preserve trees with removal as a last resort.

What is considered when writing a tree ordinance?

- DBH (Diameter at Breast Height) threshold. What size trees are to be included? Smaller size requirement will encompass more trees while larger size requirement may encompass less trees but could still protect mature trees.
- Regulating private tree removal while avoiding property rights violations.
- Setting an appropriate fee structure.
- Any exemptions made for trees that are dead, in poor condition or require emergency removal.
- Exemptions that can be made based on property size to not overburden small property owners.

What is already covered?

- The Stormwater Management and Erosion Control ordinance triggers a site plan review process for proposed construction. The site plan review process dictates what surveys are to be provided by applicants. Trees are included in the site plan review process through these surveys.
- An existing conditions survey is conducted that encompasses current site conditions as well as any trees on the property over 6"DBH.
- This survey will then be used to denote what trees over 6"DBH are proposed for removal or are to be protected.

What is already covered?

- Landscaping plans are submitted as part of the construction details given to the city. These plans outline all pertinent landscaping including tree planting.
- There is currently no replanting requirement for private tree removal. There is a requirement for replacement of public trees. (If removed)
- Special conditions are implemented for large scale commercial properties. These special conditions are made at the discretion of the planning board.

What is already covered?

- The City of Watertown forestry department is currently responsible for maintaining all publicly owned shade trees.
- The forestry department plants new trees throughout the city on public property and rights-of-way.
- They maintain existing and young trees through pruning. They also remove poor condition or dead trees.
- Any tree that is removed is automatically replaced during the next available planting season.

Benefits provided by trees.

- Trees help reduce the heat island effect through shading and evapotranspiration which helps lead to cooler overall temperatures versus areas lacking in tree canopy.
- Homes shaded by trees tend to have lower overall cooling costs in the summer.
- Trees assist in reducing stormwater runoff and help combat soil erosion.
- Homes that have mature trees often have higher home values than those that don't.
- Trees provide necessary habitat for insects and birds.

Why is Watertown proposing a tree ordinance?

- Private trees assist in providing carbon sequestration, helping to lower greenhouse gasses and assist in the fight against climate change.
- Private trees help beautify neighborhoods and improve the appearance of the city.
- Many surrounding communities have tree ordinances regulating the removal of private trees. Those communities are Boston, Brookline, Cambridge, Newton, Somerville and others across Massachusetts.
- It is outlined in the Climate and Energy Plan – “Action NR2.1: Establish an enforceable tree ordinance focused on preservation, diversification, and equitable distribution of tree canopy on public and private property.”

Questions?

Michael Micieli

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Laurel Schwab

Senior Environmental Planner

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