



Greater Boston Climate Action Plan: Agriculture and Natural Lands Workshop

October 23, 2024

Notification of Recording

*This meeting will be recorded and the **Metropolitan Area Planning Council (MAPC)** may choose to retain and distribute the video, still images, audio, and/or the chat transcript.*

By continuing with this virtual meeting, you are consenting to participating in a recorded event.

The recordings and chat transcript will be considered a public record. If you do not feel comfortable being recorded, please turn off your camera, mute your microphone, and/or leave the meeting.



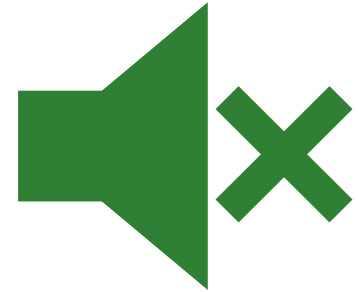


Greater Boston Climate Action Plan: Agriculture and Natural Lands Workshop

October 23, 2024

Zoom Housekeeping

- Please keep yourself on mute when not talking
- Use the chat feature to ask questions; Q&A and discussion will be held after the presentations
- Rename yourself in Zoom: Name and Organization/Community



Agenda

- Welcome and Agenda Overview
- Overview of Greater Boston Climate Action Plan
- Introduction to the "Agriculture and Natural Lands" Sector
- Breakout Group Discussion
- Closing and Next Steps

Who is in the Zoom Room?

Small breakout sessions to introduce yourself:

- Name
- Organization/Community
- Why you're attending this session today



About the Greater Boston CAP

A regional roadmap to rapidly drive down GHG emissions, slow the impacts of climate change, and realize near-term community benefits.

Benefits of Reducing Carbon Pollution

- ✓ Improve air quality and public health
- ✓ Increase local, clean energy jobs
- ✓ Reduce energy costs
- ✓ Improve public transportation and walkability



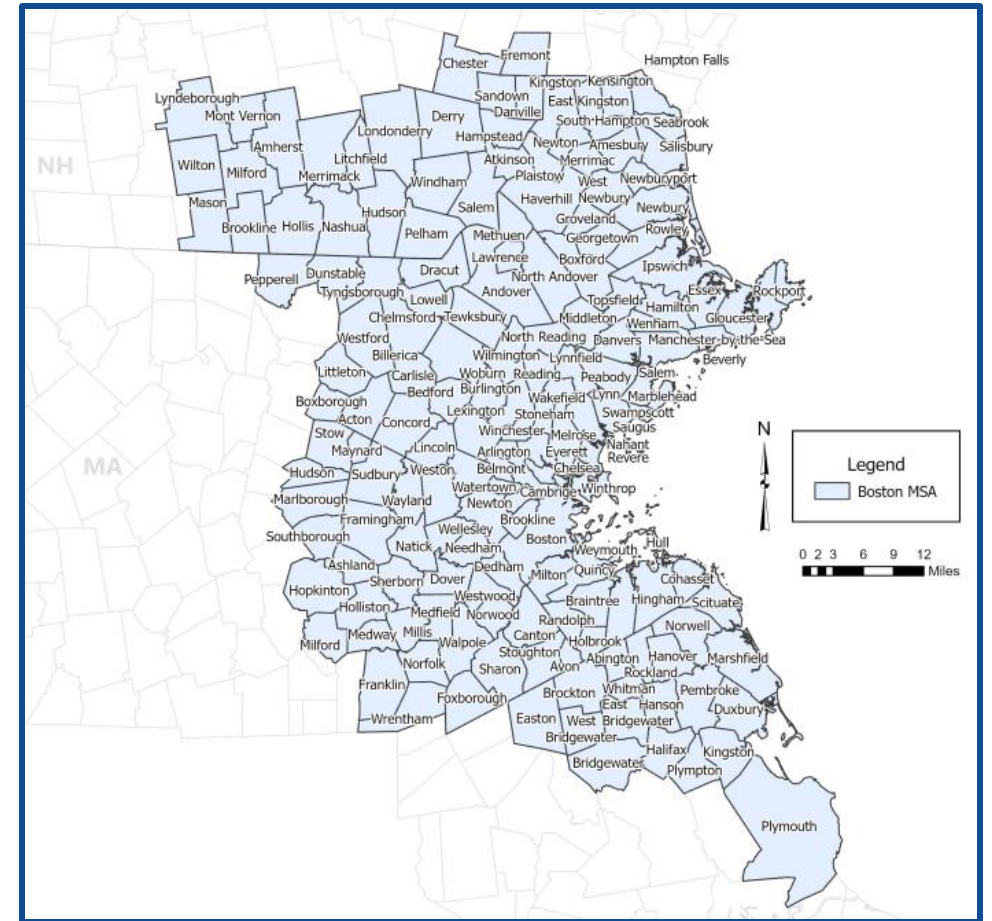
Funded by the U.S. Environmental Protection Agency's Climate Pollution Reduction Grant, with additional support from MA Department of Energy Resources and the Barr Foundation.



Boston Metro Statistical Area

A Metropolitan Statistical Area (MSA) has shared social, cultural, and economic ties with a dense population center

- 167 cities/towns in Eastern MA and Southern NH
- 4.7 million residents
- Includes 7 Regional Planning Agencies/Commissions
- Regional planning enables collaborative problem solving to address shared challenges and improve regional infrastructure.



Greater Boston CAP Steering Committee



Southern New Hampshire
PLANNING COMMISSION



**Northern
Middlesex Council
of Governments**



OLD COLONY
PLANNING COUNCIL



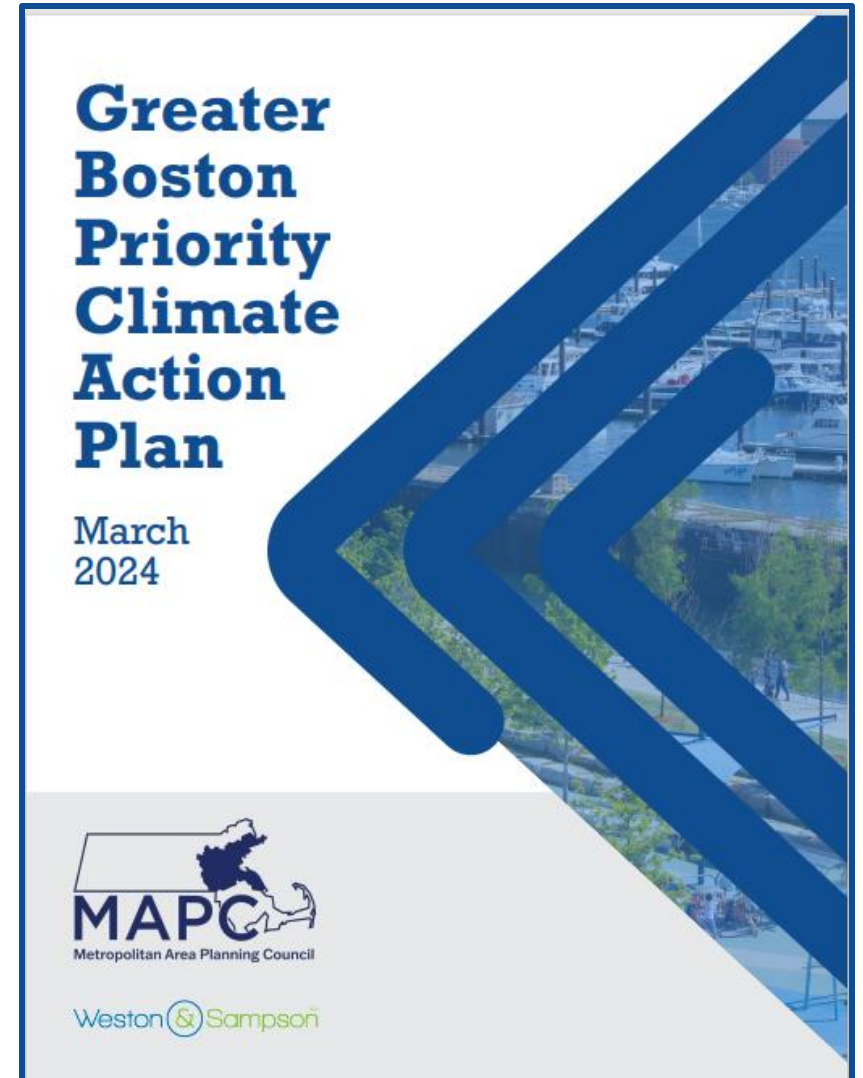
Greater Boston Priority Climate Action Plan (PCAP)

Submitted to EPA on March 1, 2024

- 11 priority GHG reduction measures to implement by 2030 across 4 sectors:
 - Buildings
 - Transportation
 - Electricity Generation
 - Waste
- Baseline Greenhouse Gas (GHG) emissions inventory for 2017

Full report available at:

<https://www.mapc.org/planning101/priority-climate-action-plan/>



Greater Boston Climate Action Plan

Due to the EPA December 2025



20-35 measures across
six sectors:



Buildings



Energy Generation



Transportation & Mobility



Waste & Materials Management



Agriculture & Natural Lands



Industry & Manufacturing



2022 GHG emissions
inventory

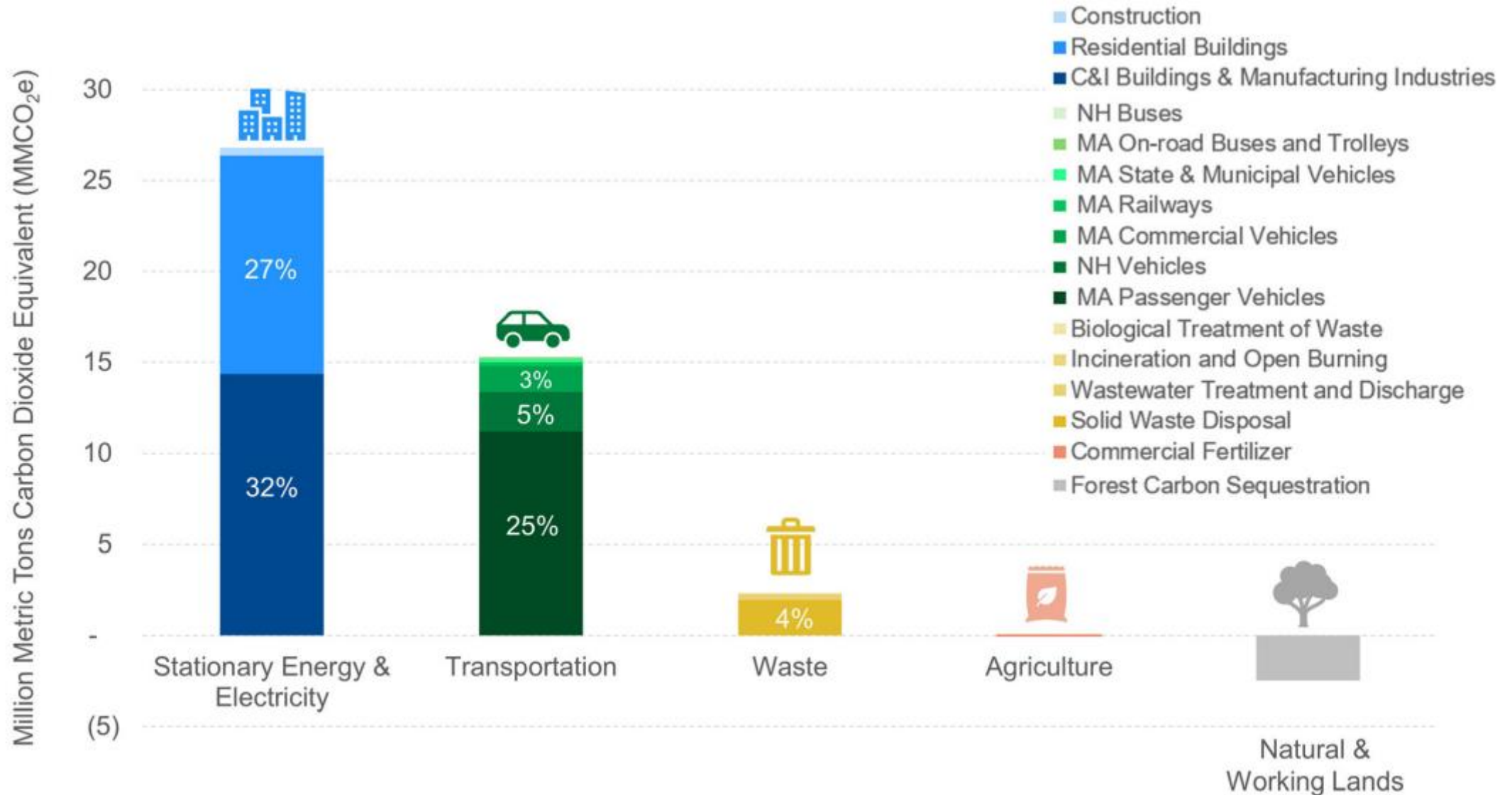


2030 and 2050 GHG
reduction targets



Workforce planning analysis
and benefits analysis

Region-wide GHG Emissions (2017)



Agriculture and Natural Lands

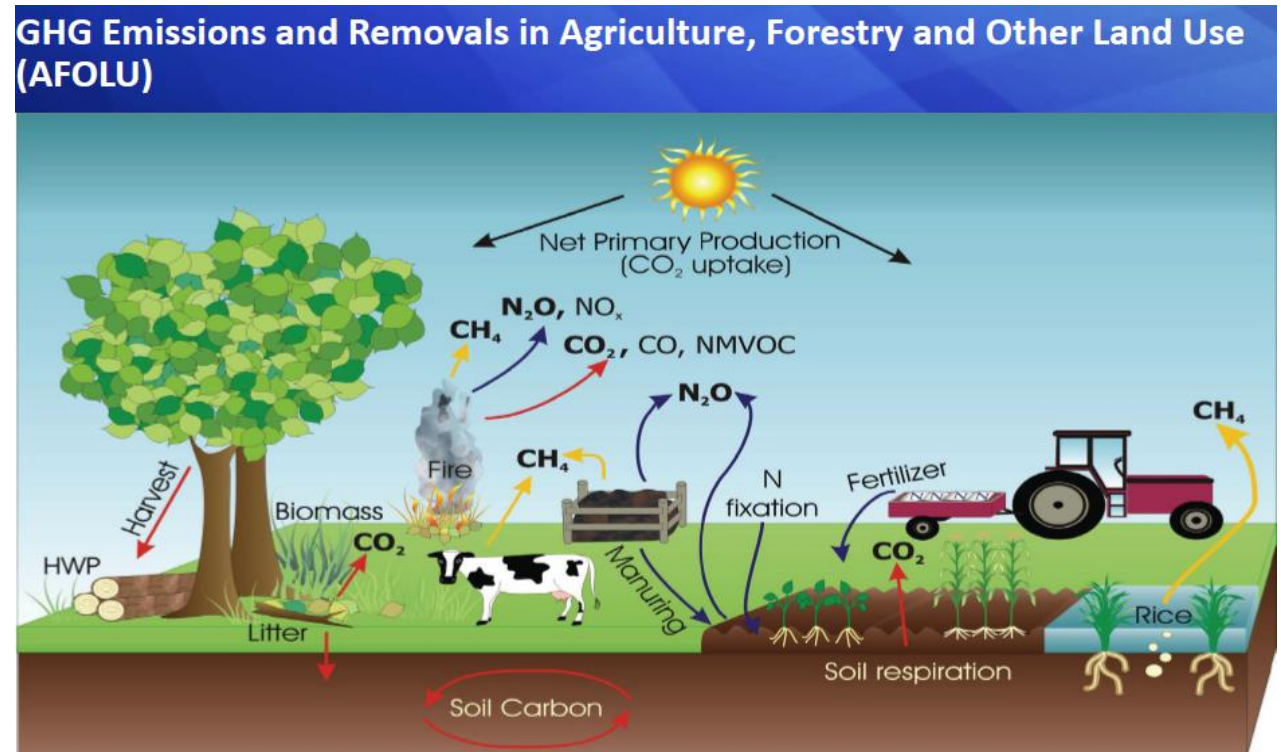


GHG emission sources:

- Farming/agriculture particularly Nitrous Oxide from crops and methane from livestock
- Machinery and equipment
- Burning of forests and deforestation

GHG sinks:

- Land conservation and preservation
- Constructed wetlands
- Regenerative soil techniques
- Increased tree canopy and forests
- Harvested wood

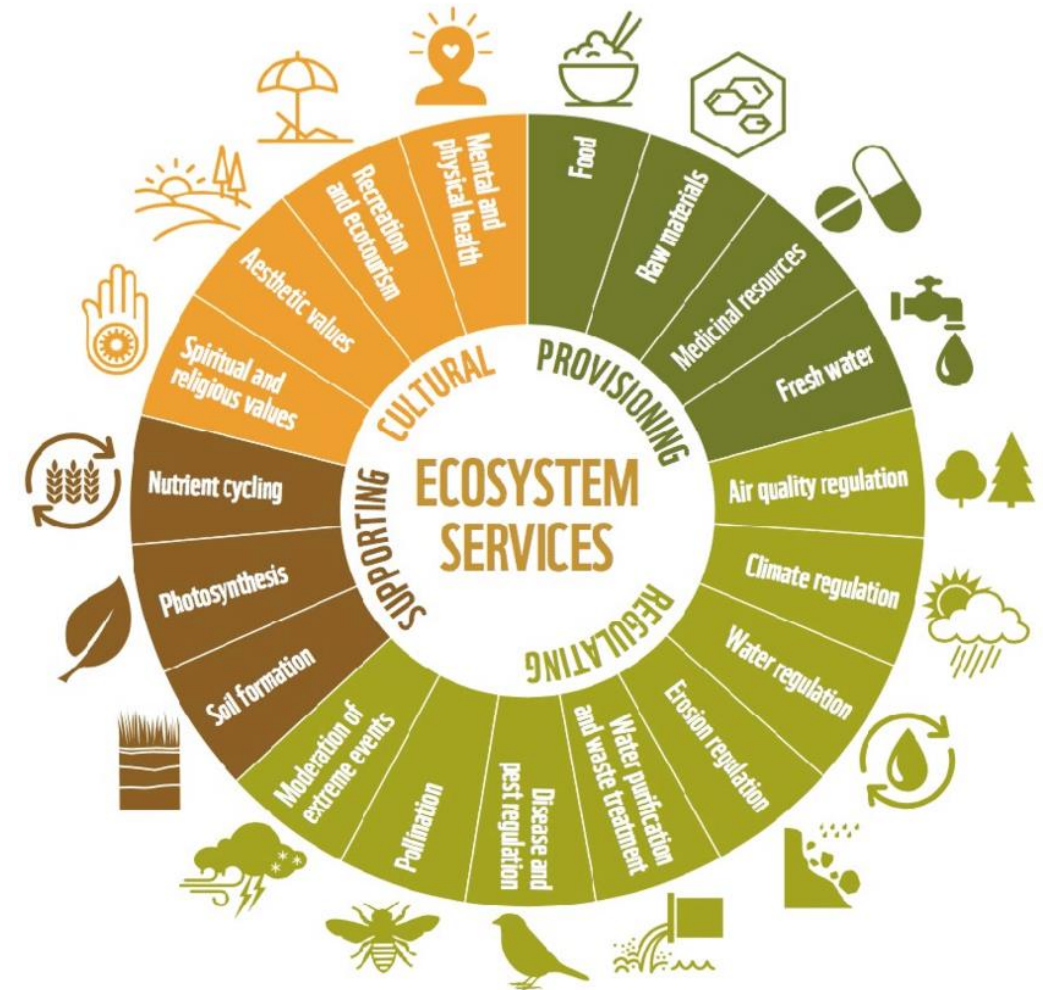


Source: EPA "State-level GHG Emissions and Sink Estimates: Agriculture and Land Use" Dec 5, 2023.

What are "Ecosystem Services"?

"Ecosystem goods and services, often shortened to ecosystem services (ES), are the benefits that humans receive from nature. These benefits underpin almost every aspect of human well-being, including our food and water, security, health, and economy."

-US EPA



Source: Ligtermoet, E., Ramalho, C. E., Martinus, K., & Pauli, N. (2021, March 1). Stakeholder perspectives on the role of the street verge in delivering ecosystem services. A study from the Perth metropolitan region.

GHG Reduction Measures

Strategies, programs, policies and projects that groups of municipalities or a regional entity can implement to reduce GHG emissions and advance equity priorities.

Example Measures:

- Increase **tree canopy** by planting 100 additional trees per year and preserve existing trees through regular watering and maintenance.
- Work with farmers to **reduce usage of nitrogen** and explore **regenerative soil** practices.



Natick High School planted 700 trees in their "tiny forest". [Source: Tiny Forest | Natick, MA - Official Website](#)

Community Spotlight

Danehy Park Miyawaki Forest in North Cambridge, MA

- Park is built on a former landfill site
- Ultra dense, biodiverse pocket forest, living classroom of native ecology.
- First example of a Miyawaki Forest in Northeast US
- Major reduction of local urban heat island effects



Source: Danehy Park Forest - Biodiversity for a Livable Climate. (2023, March 27). Bio4climate.org. <https://bio4climate.org/miyawaki-forest-program/danehy-park-forest/>

Community Spotlight

New American Sustainable Agriculture Project, NH

- NASAP is a farmer training program since 2008, established by ORIS (Organization for Refugee and Immigrant Success)
- Assists new farmers to build sustainable farm enterprises
- Successful farmers as well as leaders in sustainability
- Adaptation of skills and ambition to the New Hampshire landscape and markets.



Source: Farmer Training - ORIS

Q&A

Local Spotlight



Andrea Beccera,
Sustainability Director, Town of Acton



ActOn Climate Through Nature-Based Solutions

October 23, 2024

ANDREA BECERRA, SUSTAINABILITY DIRECTOR

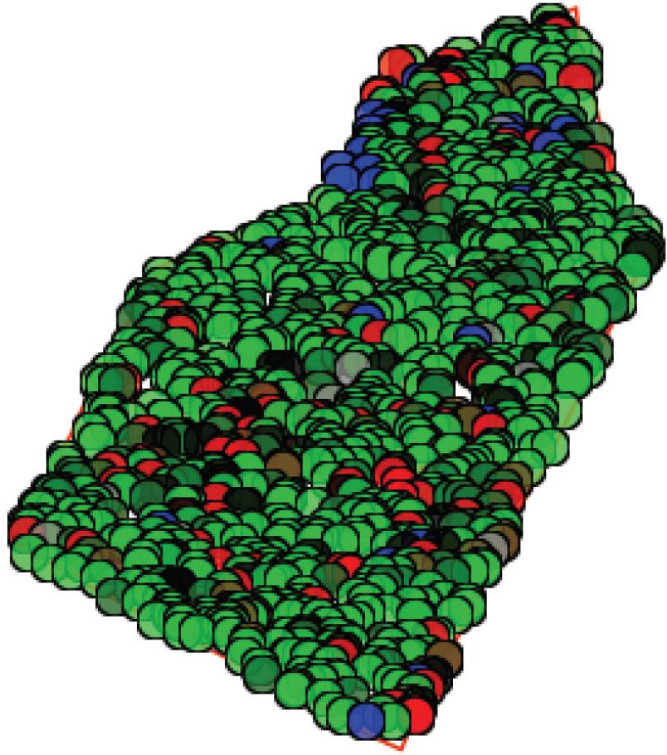
Climate Action Plan

NATURE-BASED SOLUTIONS

Acton's natural resources are protected, managed, connected, and restored to increase carbon sequestration, equity, resilience, and biodiversity.

Local land use policy encourages affordable, diverse, transit-oriented and net zero housing while also enhancing nature-based solutions.

Measuring Carbon Sequestration



Sequestered annually in trees

2024:

11,870 Metric Tons of Carbon

2021:

9,050 Metric Tons of Carbon



Acton's Climate Action Tracker

Follow along to see progress made on Acton's Climate Action Plan.

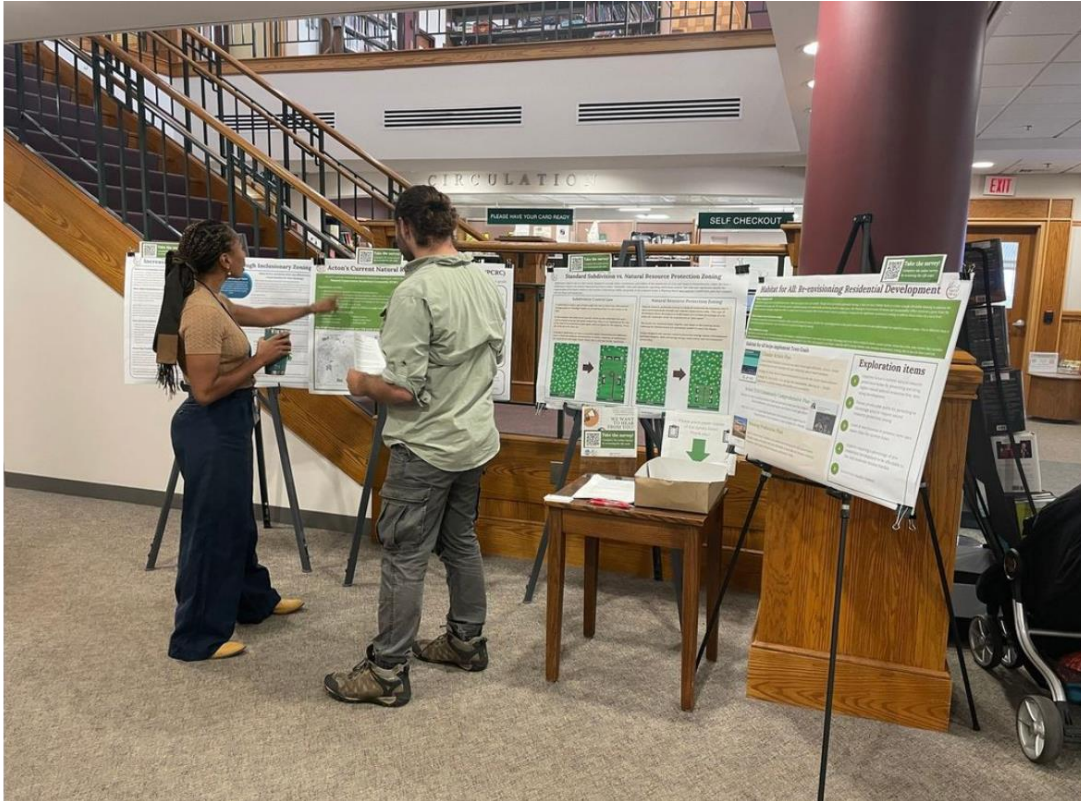
NATURE-BASED SOLUTIONS

STRATEGY N1	Increase protection of existing open space and potential green spaces throughout town in line with the open space and recreation plan.
STRATEGY N2	Support sustainable agriculture.
STRATEGY N3	Electrify municipal lawn mowing equipment and support residents to transition to electric mowing.
STRATEGY N4	Advocate for policies that support nature-based solutions implementation in Acton.
STATUS	
<div> <div>64%</div> <div>36%</div> </div>	

ActOn Climate: The Road to a Resilient Net Zero Future

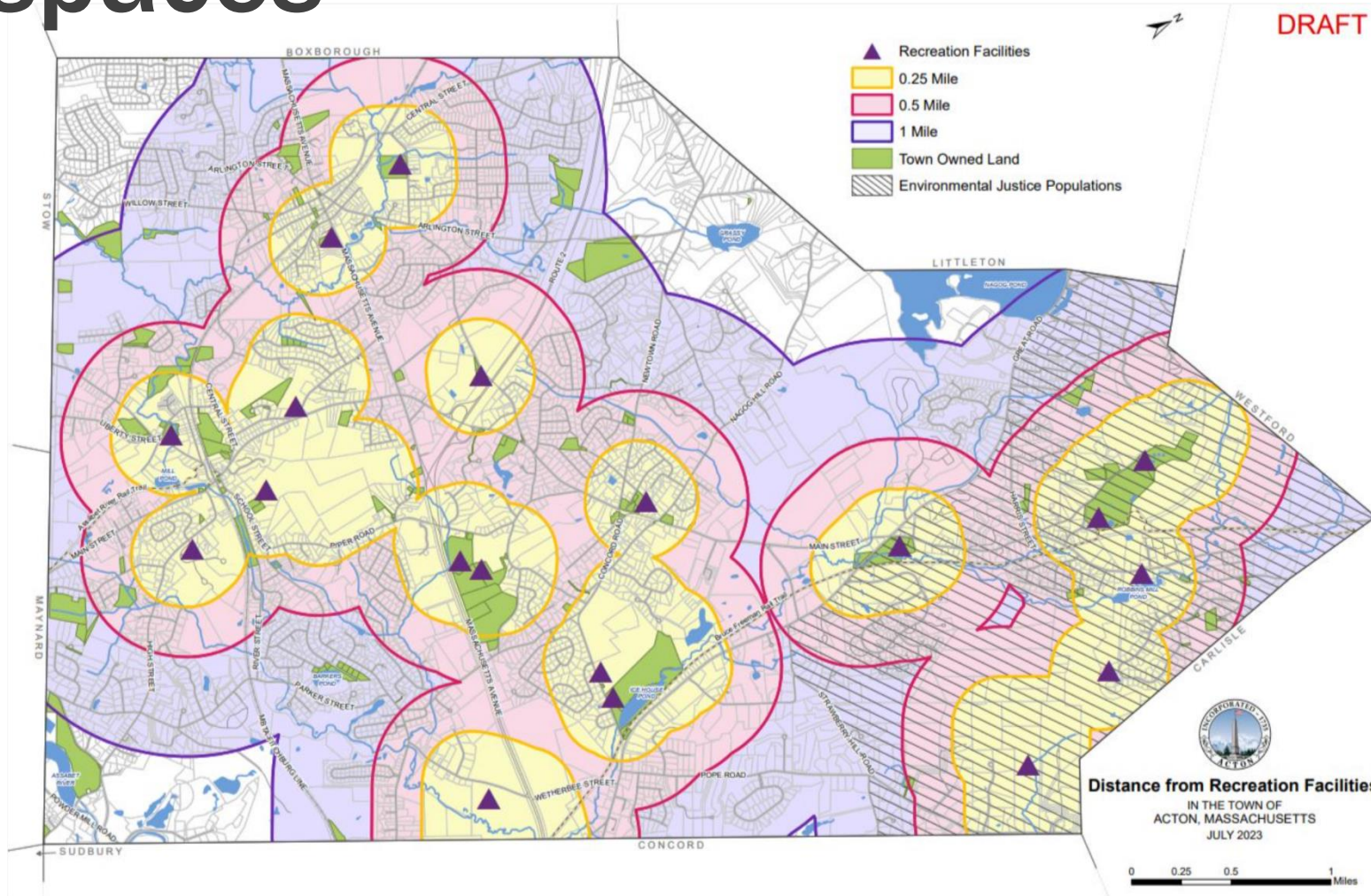


Ensure development is paired with nature-based solutions

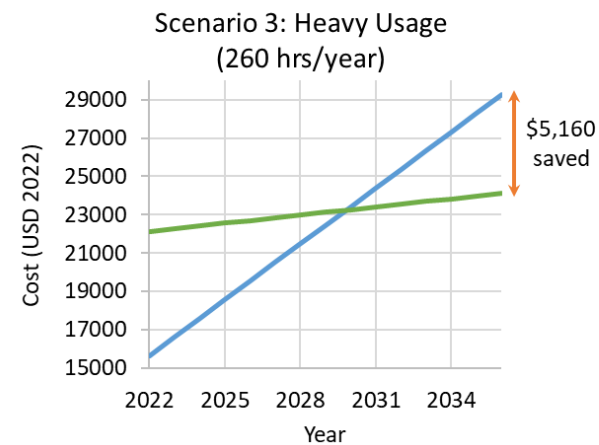
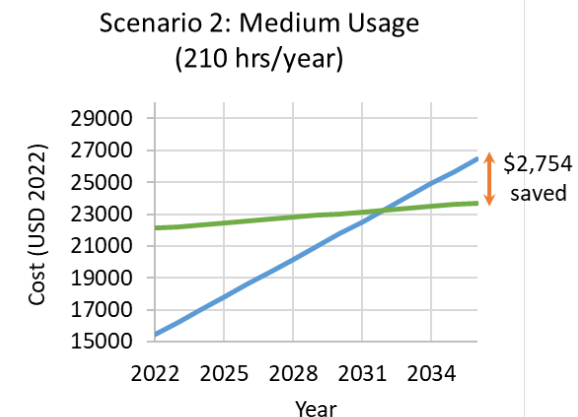
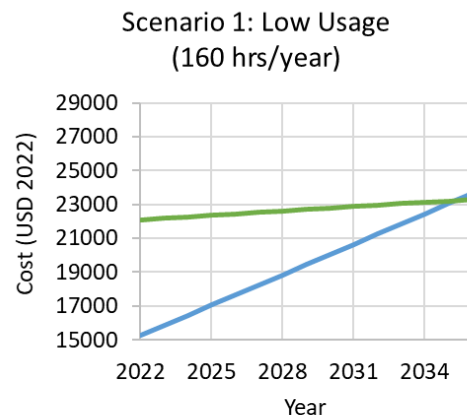


"Creating strong neighborhoods that preserve nature and ensure affordable housing"

Prioritize increasing equitable access to green spaces

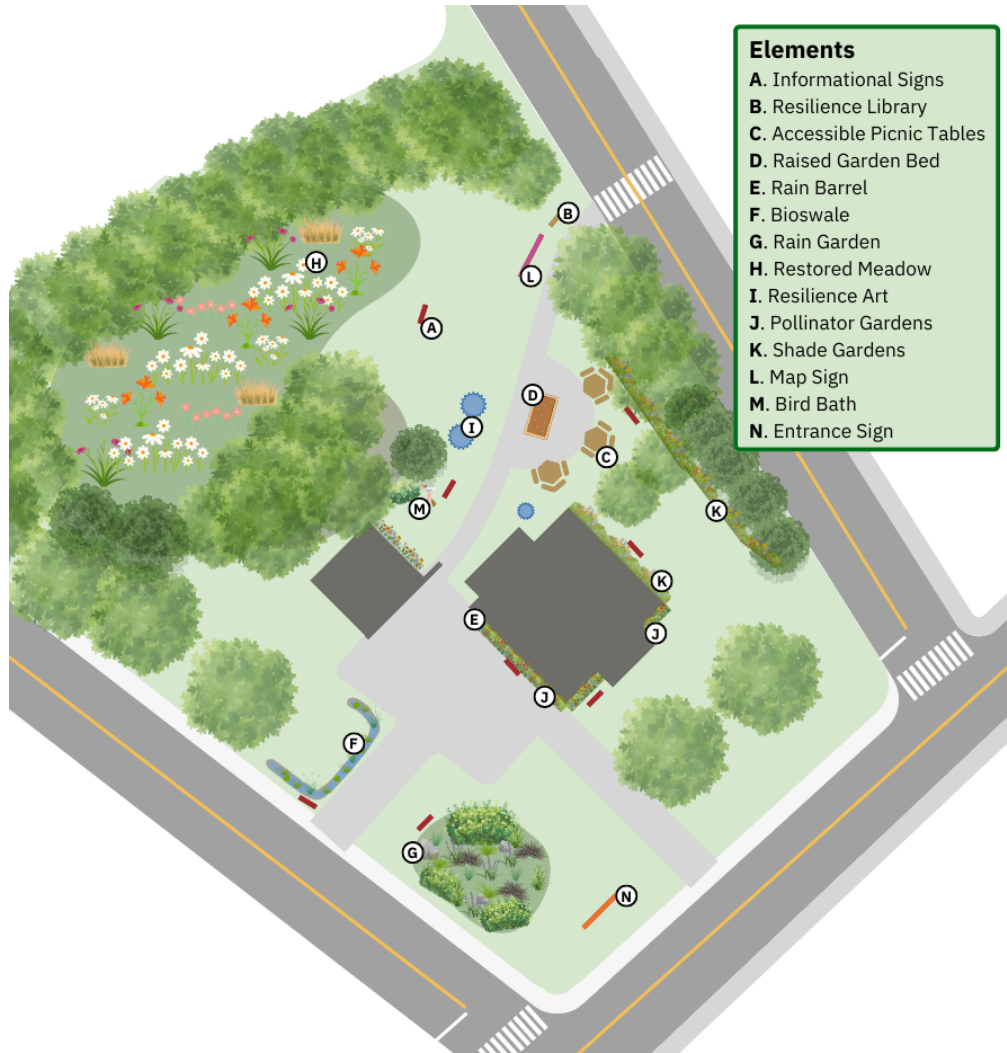


Electrify municipal landscaping equipment



— Diesel
— Battery

Greening the Red House



Questions?

abecerra@actonma.gov

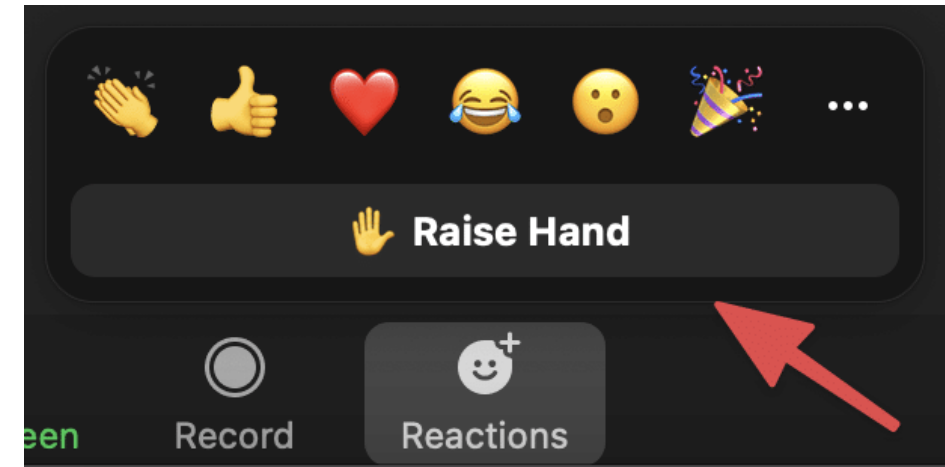
978-929-6515

Breakout Group Discussion

Discussion Guidelines



- Be fully present
- We encourage you to use the raise hand feature in zoom, "one mic"
- Use "I" statements and speak from personal experience
- Move up, Move back
- Share the lesson, not the story (don't name names)
- Be curious about others' ideas and opinions



Discussion Questions



1. In thinking about Agriculture and Natural Lands, what is most important to you and why?
2. What example of successful programs or policies related to Agriculture and Natural Lands have you seen in your own community or other places?
3. What is the role of local government or regional collaboration in scaling up solutions in this sector?
4. Not all communities are impacted by Agriculture and Natural Lands the same way, how can we ensure strategies and measures are equitable and provide benefits to low-income and communities of color?

Report backs



Closing Remarks

Opportunities to Engage

- ❑ Participate in the Engagement Roadshow and prioritization survey this winter to continue to inform the plan
- ❑ Join our [Greater Boston Climate Action Plan Listserve](#) to stay up to date
- ❑ Find slides and recordings from events on our [GBCAP website](#)
- ❑ Questions? Contact our team at CPRG@mapc.org



MAPC Technical Assistance Program

Call for Proposals is Open!

The MAPC Technical Assistance Program (TAP) is a funding program that enables cities and towns to access MAPC staff expertise and resources to move forward local and regional goals.

Submit your application by the initial deadline:

December 13, 2024

Access the application on the TAP website:

<https://mapc.ma/TAP>

**Greater
Boston**



CLIMATE ACTION PLAN



Thank you!
Contact us at CPRG@mapc.org



Appendix Slides