

Climate Resilient Carlisle

Planning Board

January 13, 2025



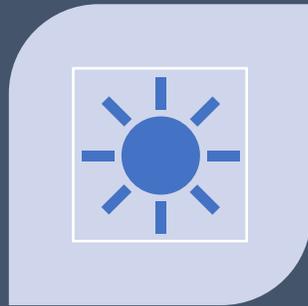
Agenda

- Recap: What we have learned
 - Existing conditions and trends
 - Resilience goals
 - Tools and methods
- Final Report Structure
- Discussion: Recommended Actions
 - Feedback
 - Successful implementation

Existing Conditions and Trends: Climate Change



Greater annual
rainfall with more
intense rainfall
events



More frequent and
intense drought



More frequent and
intense storms
with high winds



Warmer winters
and warmer
summers

Existing Conditions and Trends: Land Use and Demographics

- Heavily forested
- Significant floodplains and wetlands
- Private well water and septic
- Large houses on large lots
- Aging residents

Resilience Goals

Ecosystem
protection

Social
resilience

Housing
resilience

Flood
mitigation

Forest fire
protection
/mitigation

Water
resource
protection

GHG emissions
reduction
/efficiency

Resilient
energy
systems

Multi-modal
transportation

Emergency
response

Local
food/farming

Tools and Methods



Change in
Local Code

Change in
Town Policy



Education

Town Initiative,
Program, or
Action



Resilience actions

...are
interdisciplinary

- Most actions advance multiple goals

...can be advanced
in many ways

- Each action will be advanced through one or more of the tools/methods

...need champions

- We want to develop a roadmap that you can (and will!) implement

Final Report Structure

Roadmap for a Climate Resilient Carlisle

- Intro: Existing Conditions and Trends
- Resilience Goals
- Tools and Methods
- Actions

Actions are most likely to be implemented when they:

- ✓ Are clearly defined, especially the immediate next steps
- ✓ Are important, urgent, or high priority
- ✓ Have champions with the capacity and the authority to advance them

Today's Discussion

- Review the actions associated with Planning Board
- Feedback
- Implementation
 - What's the next step?
 - What is highest priority?
 - What is low hanging fruit?
 - What can you own and champion?

Promote small scale density and preserve smaller homes to strengthen climate resilience

Goals Advanced

- Social resilience
- Housing resilience
- Carbon emissions reductions/efficiency

Groups Involved

- Planning Board, Affordable Housing Trust, Municipal Vulnerability Preparedness Core Team, Environmental Sustainability Committee

Tools and Methods

- Education



Preserve and reuse existing structures and building materials

Goals Advanced

- Carbon Emissions Reduction/Efficiency

Groups Involved

- Select Board, Historical Commission, Affordable Housing Trust, Environmental Sustainability Committee

Tools and Methods

- Change in local code
- Change in local policy
- Education



Better understand the protections offered by and constraints created by local septic system standards

Goals Advanced

- Ecosystem protection
- Housing resilience
- Water resource protection

Groups Involved

- Board of Health, Planning Board, Affordable Housing Trust, Environmental Sustainability Committee

Tools and Methods

- Education



Ensure that open spaces required by various development approvals are valuable and connected

Goals Advanced

- Ecosystem protection
- Flood mitigation
- Water resource protection

Groups Involved

- Zoning Board of Appeals, Planning Board, Select Board, Environmental Sustainability Committee, Conservation Commission

Tools and Methods

- Change in local code
- Change in local policy
- Education



Use 0.2% annual chance (“500-year”) flood boundary in all codes and regulations

Goals Advanced

- Housing Resilience
- Flood Mitigation

Groups Involved

- Conservation Commission, Planning Board, Zoning Board of Appeals, Select Board,

Tools and Methods

- Change in local code



Increase the use of green infrastructure on public and private property

Goals Advanced

- Ecosystem Protection
- Flood Mitigation
- Water Resource Protection

Groups Involved

- Planning Board, Select Board, Environmental Sustainability Committee, Conservation Commission, Town staff

Tools and Methods

- Change in local code
- Education
- Town action



Encourage resilient yards and landscaping for residential, public, and other properties

Goals Advanced

- Ecosystem protection, flood mitigation, forest fire protection/mitigation, water resource protection

Groups Involved

- Planning Board, Conservation Commission, ESC

Tools and Methods

- Change in local code
- Education
- Town action



Clarify ownership and implement maintenance program for roadside ditches/swales

Goals Advanced

- Ecosystem protection
- Flood mitigation
- Local food and farming

Groups Involved

- Conservation Commission, Town staff

Tools and Methods

- Change in local policy
- Town action



Facilitate updates to historic structures geared toward energy efficiency, renewable energy, climate resilience

Goals Advanced

- Social resilience, housing resilience, flood mitigation, carbon emissions reductions/efficiency, resilient energy systems

Groups Involved

- Planning Board
- Historical Commission

Tools and Methods

- Change in local policy
- Education
- Town action



Promote safe installation and use/storage of onsite energy storage batteries, EVs, and electric scooters

Goals Advanced

- Housing Resilience
- Forest Fire Prevention/Mitigation
- Resilient Energy Systems

Groups Involved

- Planning Board, ESC, LEPC, Town staff

Tools and Methods

- Change in town policy (register equipment)
- Education



Questions?

Reach out if anything comes to mind!

Thank you!!

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