

# Climate Change Adaptation and Resilience Plan

## Columbia County

March 2024

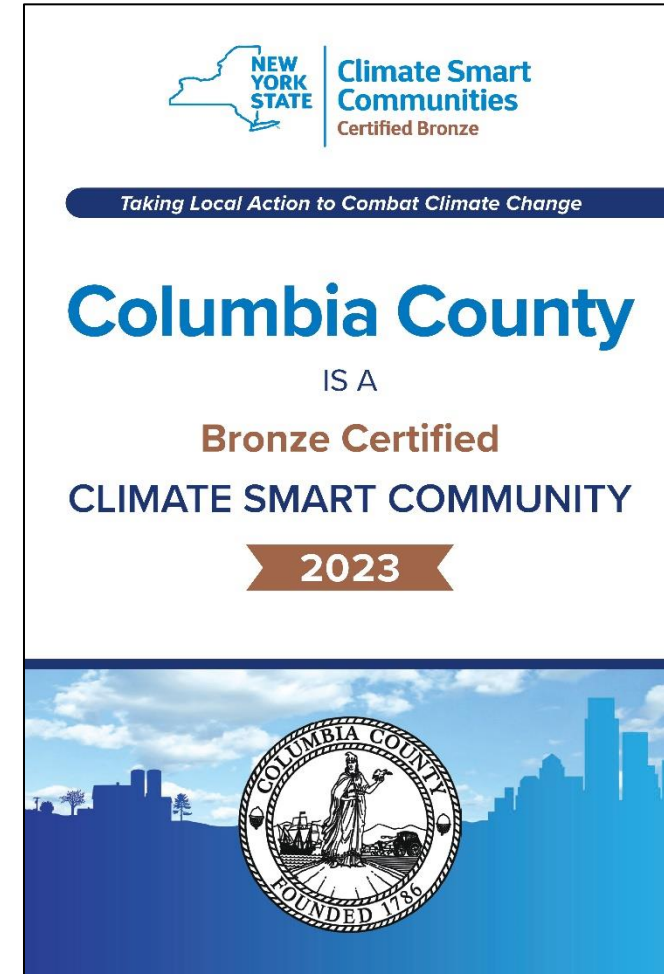
Cornell  
Cooperative  
Extension



Climate Smart  
Communities

# Where did the idea come from?

- Climate Smart Communities Task Force
- CDRPC and NYS DEC
- Cornell Cooperative Extension – Columbia and Greene Counties
- BOS Resolution August 2022
- January 2023 – Launch meeting
- Completed March 2024
- A 20-month long project



## Development of the plans relied on:

- Technical assistance from Cornell Cooperative Extension, Columbia and Greene Counties



## Development of the plans relied on:

- On behalf of the Capital District Regional Planning Commission (CDRPC)



## Development of the plans relied on:

- Through a NYS DEC Climate Smart Communities Coordinator Services contract and Pilot Program.



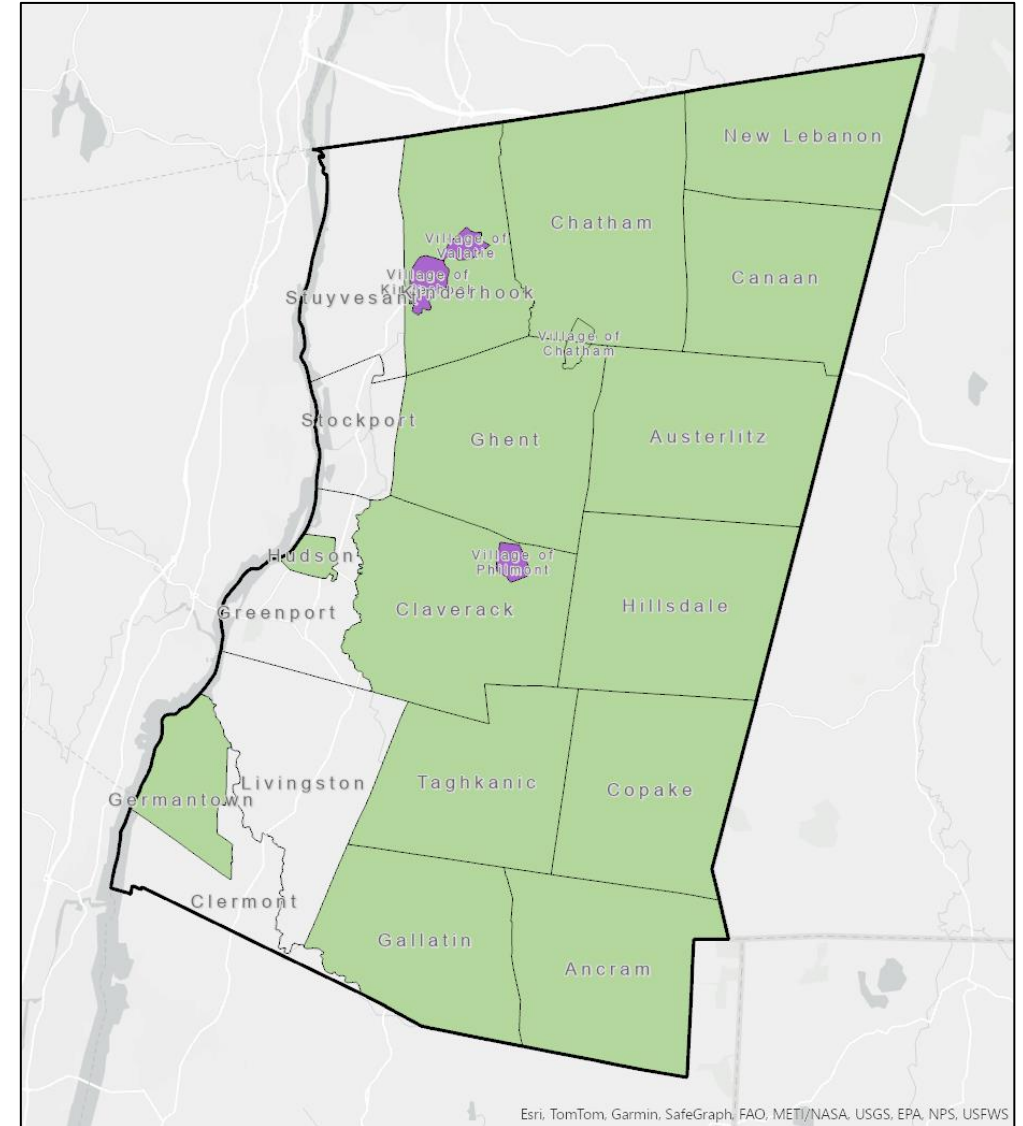
**Affectionately Know As...**

**The CARP** - Climate Adaptation & Resilience Plan



# Who Participated?

- Columbia County
- City of Hudson
- 13 Towns
- 3 Villages
- 18 municipalities total





# How does a CARP fit in with other plans?

- The CSC Program – 115 Actions
  - 4 – Organize and Collaborate
  - 10 - Inventory and Measure
  - **16 – Plans and Studies**
  - 16 – Adopting Policies
  - 69 – Implementation Actions

The screenshot displays the 'Climate Smart Communities' website. The header includes the New York State logo and navigation links for Services, News, and Government. Below this is a dark blue navigation bar with links for About, Actions & Certification, and Support, along with a 'SIGN IN' button. The main content area is titled 'Certification Actions' and provides information about the CSC Certification program. It includes a section for 'December 17, 2021' updates and links to download the current (December 2021) and old (April 2021) versions of the Action Checklist and Crosswalk. A search bar is present with a 'SEARCH ACTIONS' button and a 'CLEAR SEARCH' button. Below the search bar, a list of 12 actions is displayed, each with a dropdown arrow. The actions are: 1. Build a climate-smart community, 2. Inventory emissions, set goals, and plan for climate action, 3. Decrease energy use, 4. Shift to clean, renewable energy, 5. Use climate-smart materials management, 6. Implement climate-smart land use, 7. Enhance community resilience to climate change, 8. Support a green innovation economy, 9. Inform and inspire the public, 10. Engage in an evolving process of climate action, 11. Innovation, and 12. Performance.

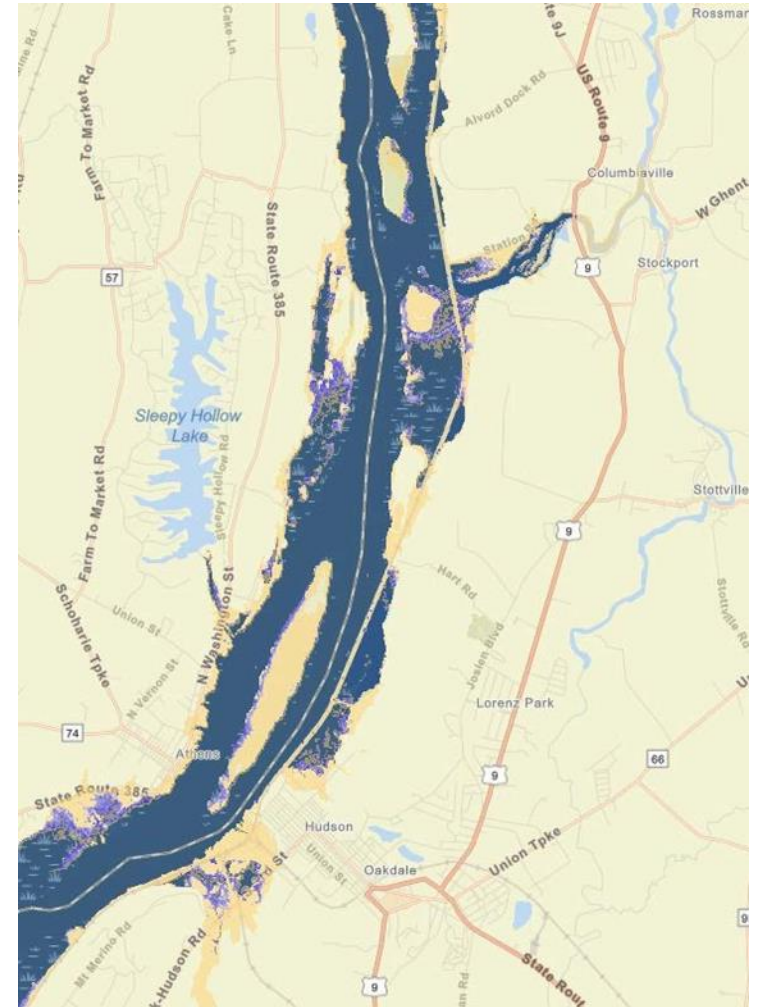


# Sixteen Planning Actions

- Renewable Energy Feasibility Studies
- Green Economic Development Plans
- Planning for Biking & Walking
- Organics Management Plan
- Watershed Plan for Water Quality
- Watershed-based Flood Mitigation Plan
- Comprehensive Plan with Sustainability Elements
- Natural Resources Inventory
- Climate Vulnerability Assessment
- Evaluate Policies for Climate Resilience
- Climate Adaptation Plan
- Climate-resilient Hazard Mitigation Plan
- Heat Emergency Plan
- Government Operations Climate Action Plan
- Community Climate Action Plan
- Updates to Strategies & Plans

# What did we have to start with?

- Columbia County:
  - GIS Database and Data Portal
  - Natural Resources Inventory
  - Hazard Mitigation plan (2018, and currently being updated)
- Local Municipalities had or may have had:
  - Comprehensive Plans
  - Open Space plans
  - Local Waterfront Revitalization Plans



Scenic Hudson Sea Level Rise Mapper

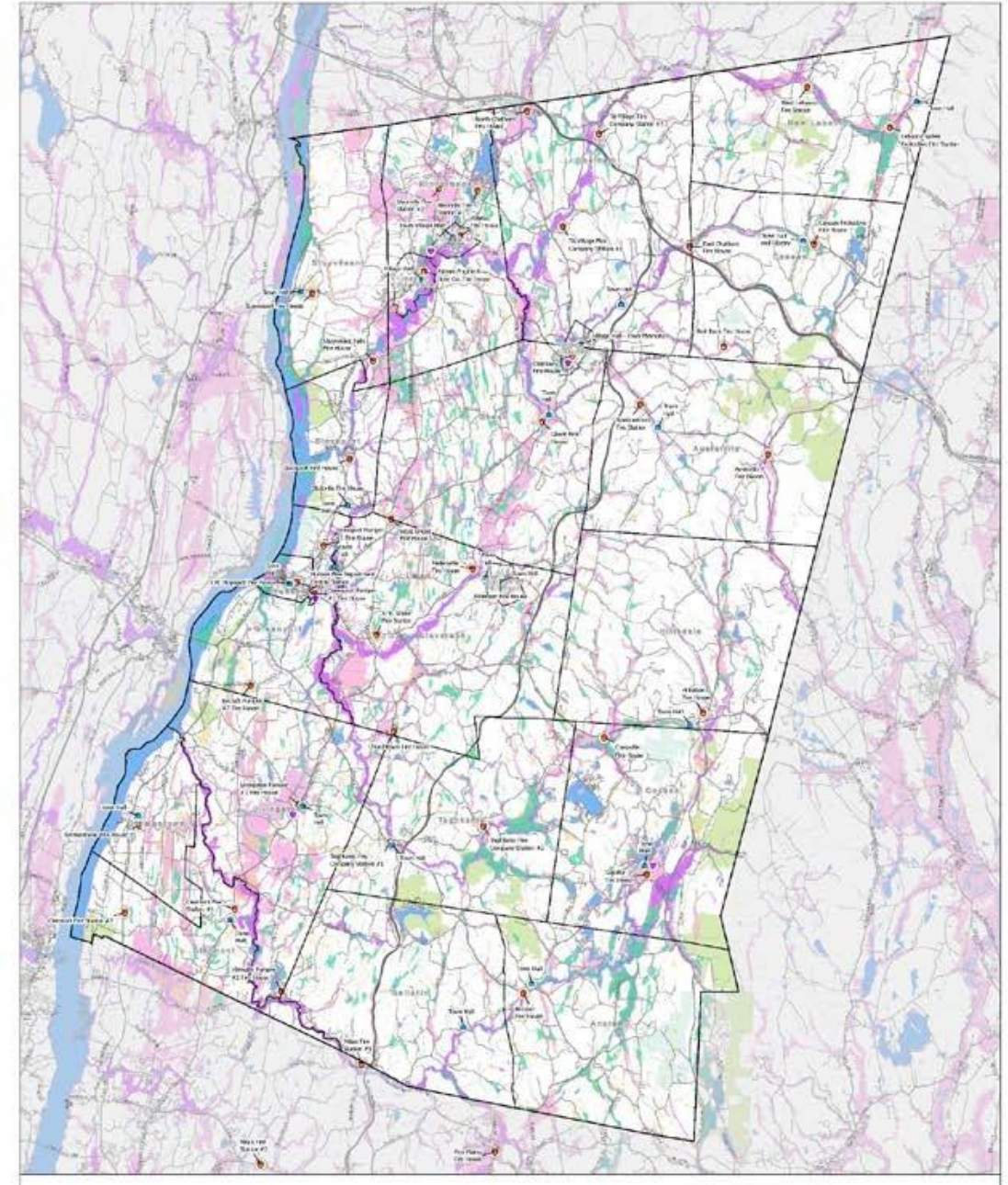
# Columbia County's Climate Planning Strategy:

- Renewable Energy Feasibility Studies
- Green Economic Development Plans
- Planning for Biking & Walking
- Organics Management Plan
- Watershed Plan for Water Quality
- Watershed-based Flood Mitigation Plan
- Comprehensive Plan with Sustainability Elements

- **Natural Resources Inventory**
- **Climate Vulnerability Assessment**
- **Evaluate Policies for Climate Resilience**
- **Climate Adaptation Plan**
- Climate-resilient Hazard Mitigation Plan
- Heat Emergency Plan
- Government Operations Climate Action Plan
- Community Climate Action Plan
- Updates to Strategies & Plans

# NRI & GIS Database

- Municipal Boundaries
- Roads, Water, Streams
- Town Halls and Municipal Buildings
- Firehouses
- EMS/Rescue Squad Locations
- State Owned Lands
- Preserved and Conserved properties
- Critical Environmental Areas
- NYS and NWI Wetlands
- Current & Future Flood Risk
- Sea Level Rise






# Vulnerability Assessment and Survey

## 668 Surveys Completed by Columbia County Community Members

Responses were received from all 22 municipalities within Columbia County.

**Columbia County is Creating  
a Climate Change Adaptation  
and Resilience Plan**



**> > > HAVE YOUR VOICE HEARD < < <**


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**TAKE THE PUBLIC SURVEY!**

TELL US about what community assets and environmental impacts are important to you, what hazards you have experienced, and what is at risk in your community.


To participate scan QR code or go to  
<https://ccecolumbiagreene.org/Columbia-survey>

This survey will be active until September 4, 2023

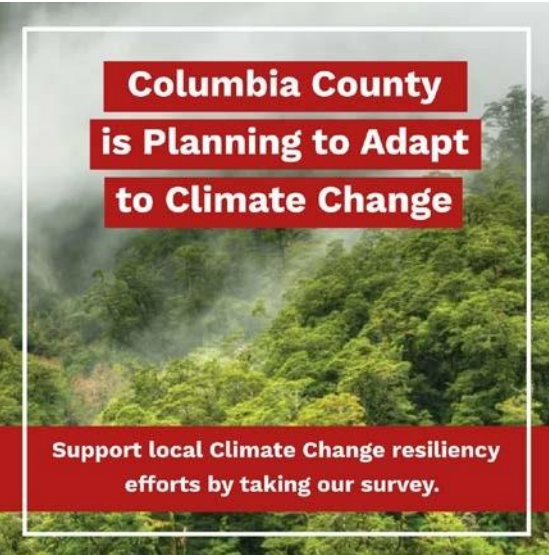


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**Columbia County  
is Planning to Adapt  
to Climate Change**



**Support local Climate Change resiliency  
efforts by taking our survey.**

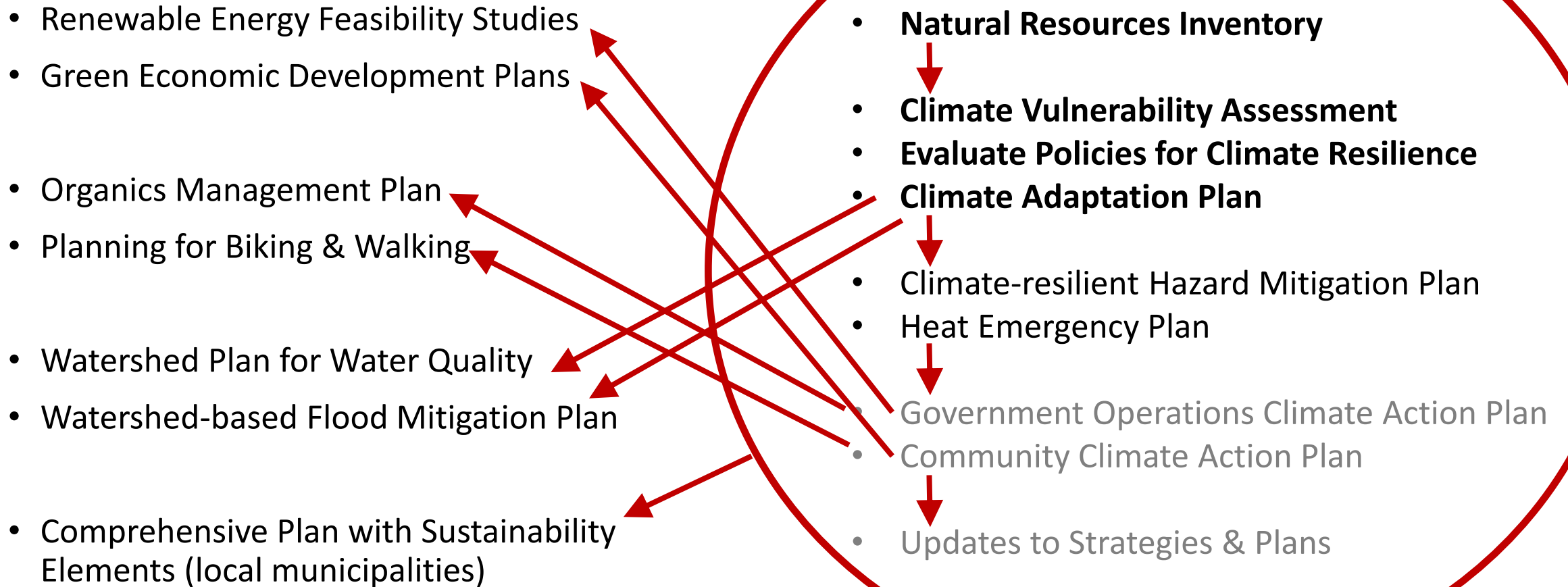
1. Ancram	73
2. Austerlitz	28
3. Canaan	15
4. Chatham	39
5. Claverack	55
6. Clermont	13
7. Copake	6
8. Gallatin	46
9. Germantown	10
10. Ghent	13
11. Greenport	4
12. Hillsdale	48
13. Hudson	21
14. Livingston	2
15. New Lebanon	29
16. Philmont	25
17. Stockport	7
18. Stuyvesant	13
19. Taghkanic	48
20. Town of Kinderhook	100
21. Village of Kinderhook	18
22. Valatie	48

# Projected Climate Change and Impacts

- Annual Temperature Change
- Increased Precipitation
- Sea Level Rise
- Extreme Weather
- Ecosystem Change
  - Invasive Species
  - Water Resources



# Planning “Inter”-Actions





# The CARP >>> Policy & Implementation Actions

- Conserve Natural Areas
- Riparian Buffers
- Source Water Protection
- Nature-Based Shorelines
- Green Infrastructure
- Green Parking Lots
- Climate Change Education & Engagement
- Social Media
- Cooling Centers
- Shade Structures Policy
- Policies for Local Food Systems
- Water Conservation and Reuse
- Water Smart Landscaping
- Culverts and Dams
- Strategic Relocation

# The CARP - The CAP - The HMP

- CARP - An Adaptation Plan
  - Looks at current and future vulnerabilities caused by climate change
  - Proposes a set of strategies to minimize the impact and adapt to a changing climate
- HMP - A Mitigation Plan or an Adaptation Plan?
  - Looks at current and future vulnerabilities caused by all hazards including climate change
  - Proposes a set of strategies that will either reduce the likelihood of a hazard, or minimize the impact of a hazard
- CAP - A Mitigation Plan
  - Starts with an inventory of Greenhouse Gas Emission sources
  - Proposes a set of strategies to reduce those GHG emissions

