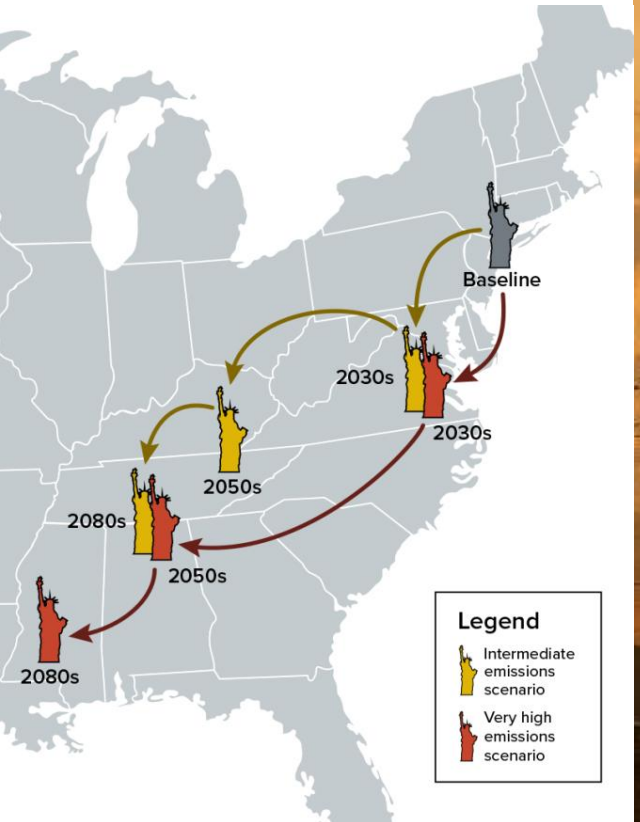
NEW YORK STATE | Department of Environmental Conservation

Advancing Climate Action in New York State

Leo Matteo Bachinger, Program Manager, Office of Climate Change

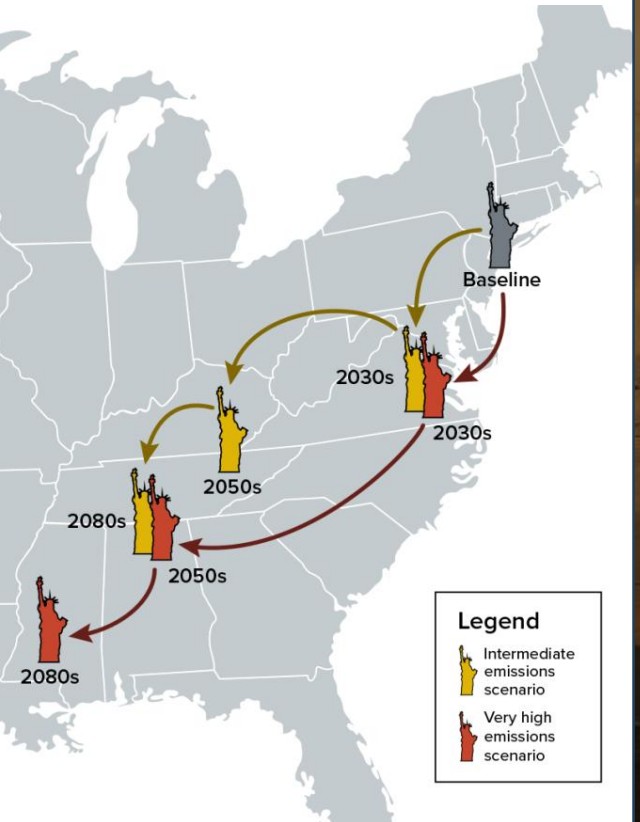
UNDERSTANDING THE CHANGES



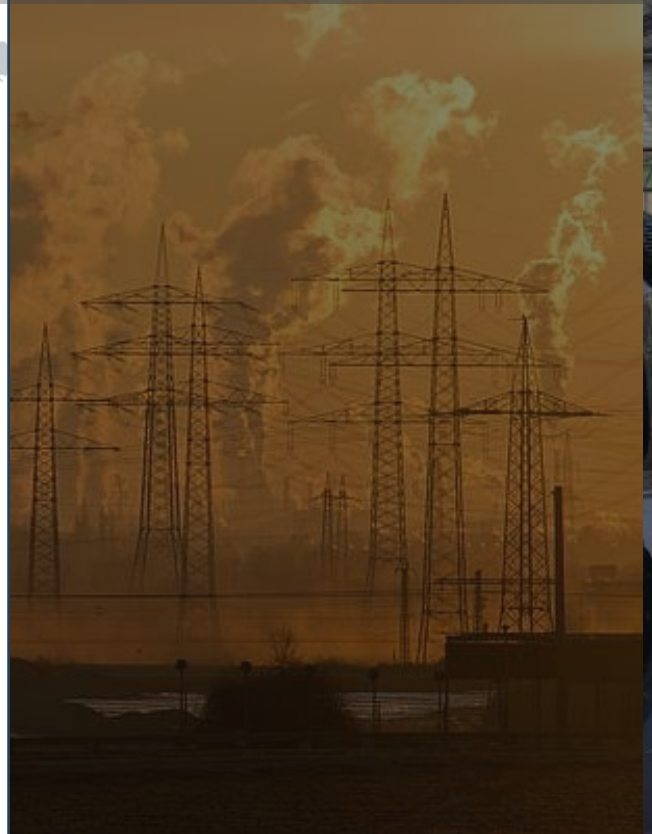
REDUCING EMISSIONS

ADAPTING TO THE IMPACTS

UNDERSTANDING THE CHANGES

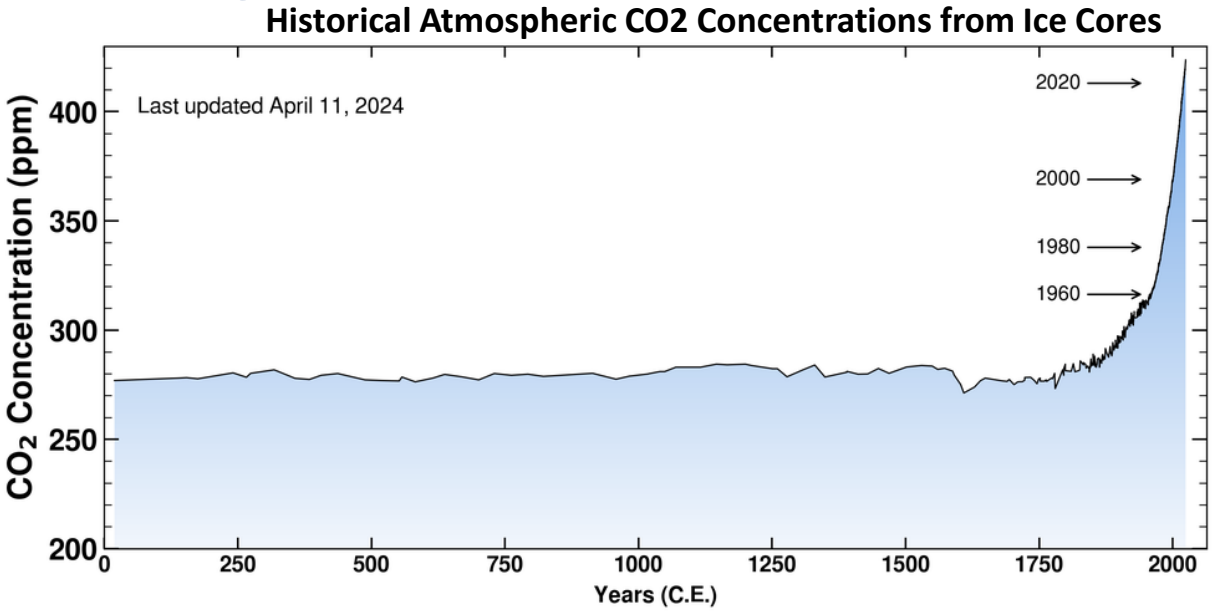


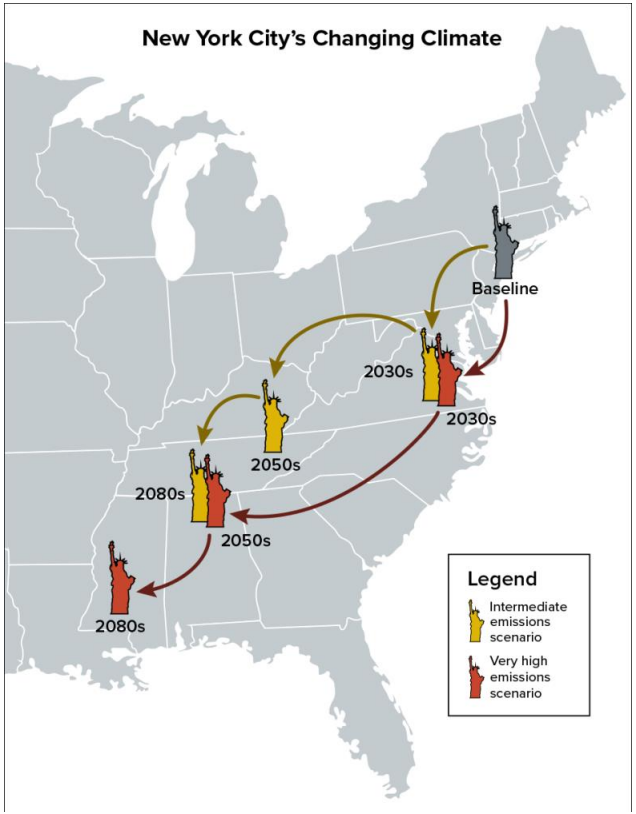
REDUCING EMISSIONS



ADAPTING TO THE IMPACTS

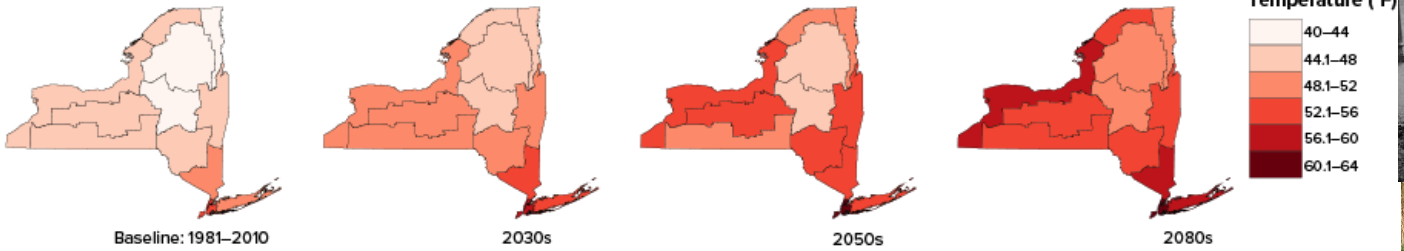
Background



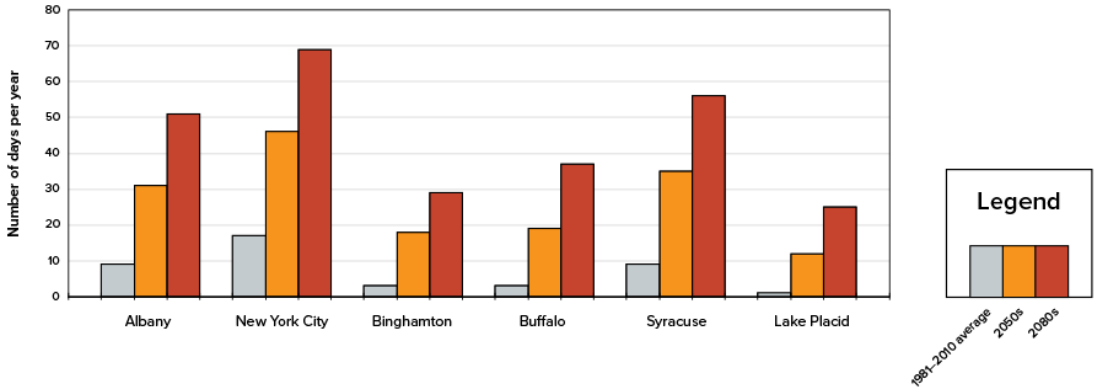


Source: Ice Cores, Mauna Loa data starting in 1958, https://keelingcurve.ucsd.edu/

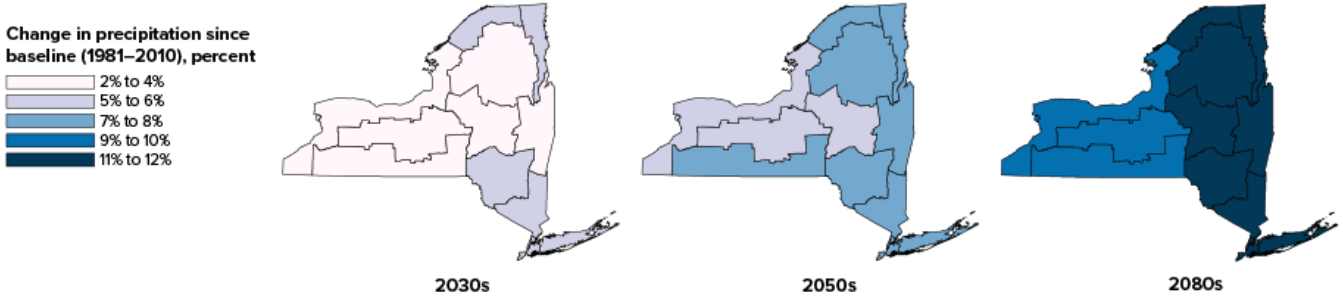
Projected Annual Average Temperature in New York State During the 21st Century

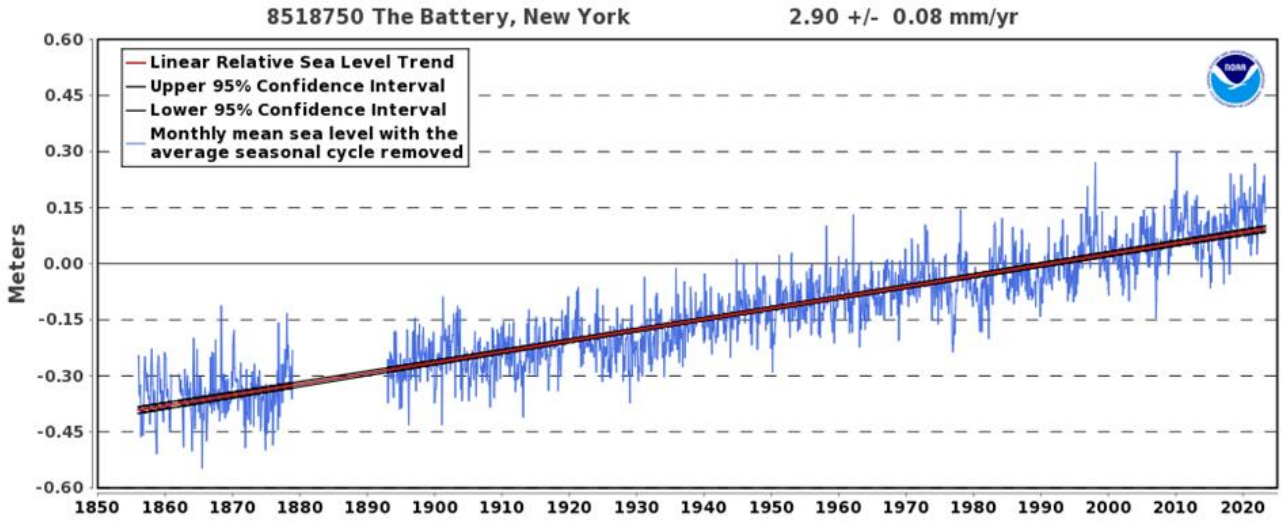


Number of Days with Temperatures Above 90°F in New York State



Projected Annual Precipitation in New York State During the 21st Century





Understanding Our Changing Climate

NEW YORK STATE CLIMATE IMPACTS ASSESSMENT

NYS Climate Impacts Assessment

Released in January 2024 - https://nysclimateimpacts.org/

New York's Changing Climate

See how the state's climate has changed and is projected to change through this century.

Case Studies

Explore stories on climate impacts and adaptations from New York State communities.

Explore by Sector

Learn about climate impacts on each of the assessment's eight sectors.

Explore by Region

Learn about impacts on twelve climate regions.

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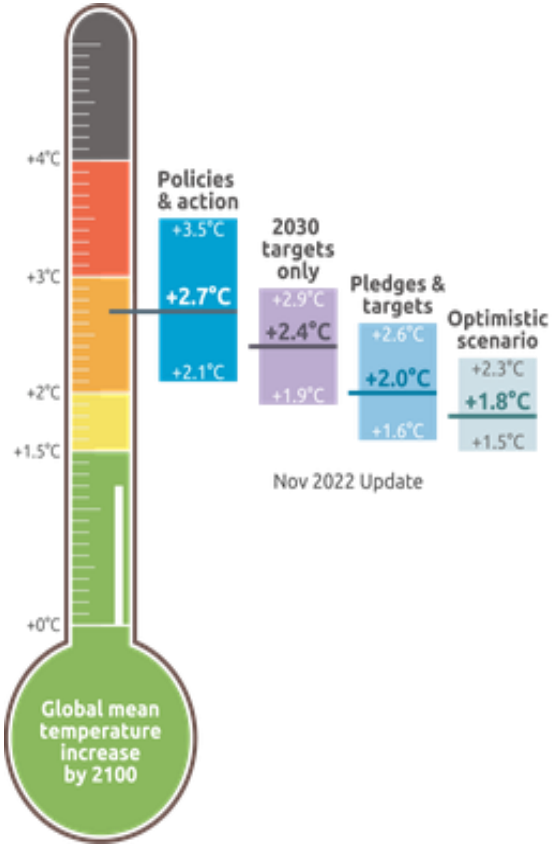
National Pledges

- 1.5ºC warming could trigger feedback loops with the potential to cause runaway warming.(IPCC, 2018)
- Risks substantially higher at 2ºC warming. (IPCC, 2018)
- Policies actually in place would allow 2.1- to 3.5 ºC. (Climate Action Tracker)
- Current commitments would likely lead to a 2.0ºC and up to 2.6 ºC rise by 2100
- The Gap: On current track we will emit enough GHGs by 2030 to make holding warming to 1.5ºC impossible. (IPCC, 2018)



Climate Action Tracker

TRACKING GLOBAL CLIMATE ACTION SINCE 2009

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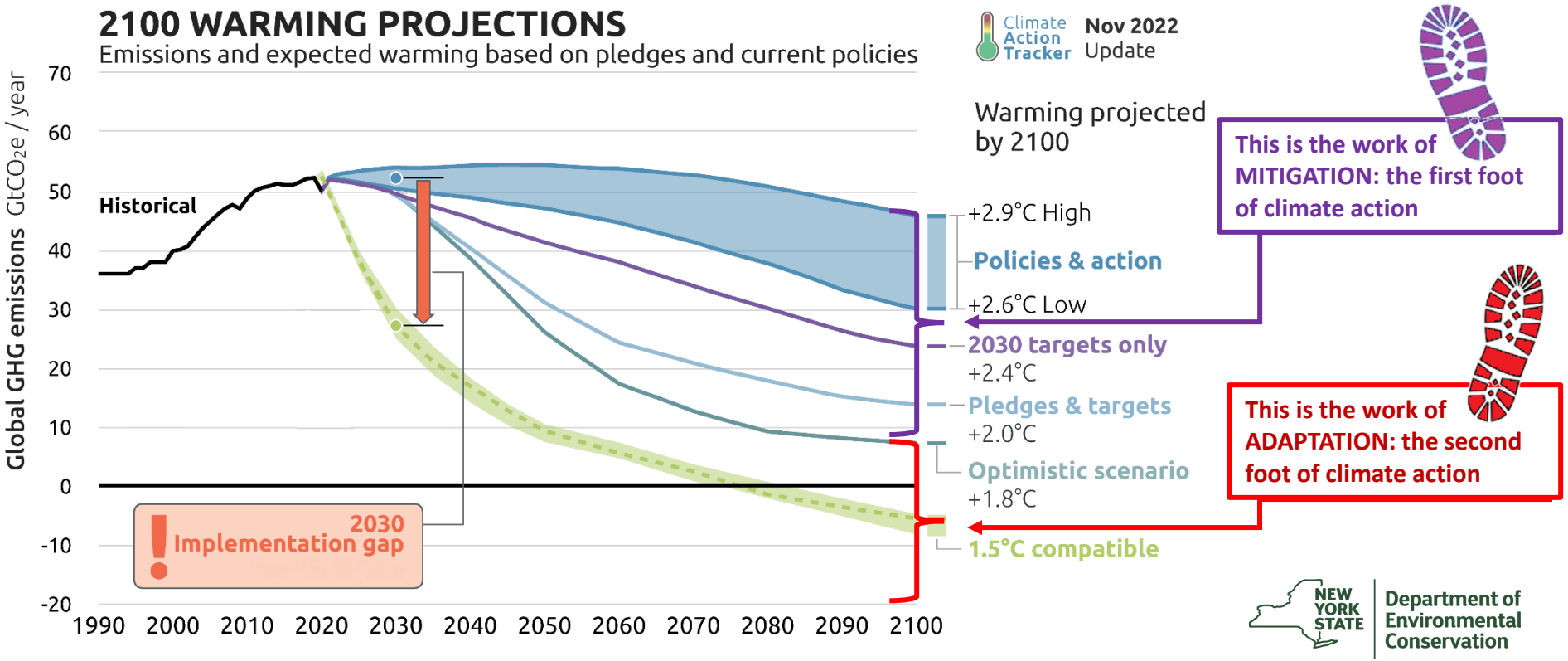
Both mitigation *AND* adaptation actions are essential



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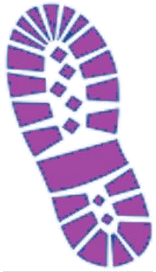
Responding to Climate Change

Responding to climate change requires taking actions that moves us forward towards becoming more resilient.

How do we move forward? - With both feet!

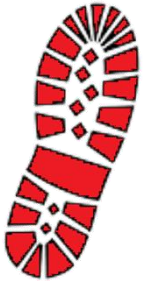


MITIGATION: the first foot of climate action

Mitigation cuts greenhouse gases to reduce the likelihood of future climate impacts.

ADAPTATION: the second foot of climate action

Adaptation reduces the severity and damage from climate impacts already underway and anticipated in the future.



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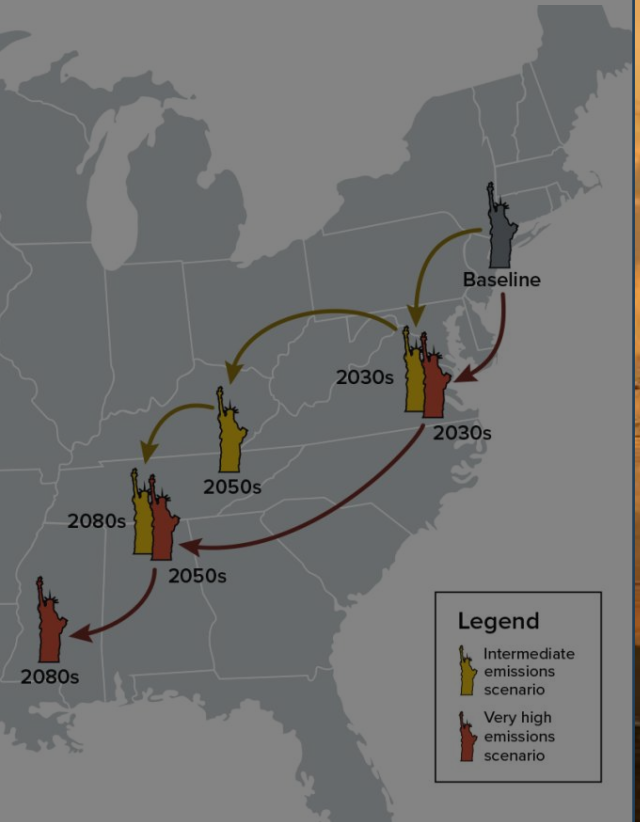
UNDERSTANDING THE CHANGES



REDUCING EMISSIONS

ADAPTING TO THE IMPACTS

Emissions Reduction Requirements

Carbon neutral economy, mandating at least an 85% reduction in emissions below 1990 levels

New York State is required to reduce GHG emissions:

- **40% by 2030**, from 1990 levels (40x30)
- **85% by 2050**, from 1990 levels (85x50)

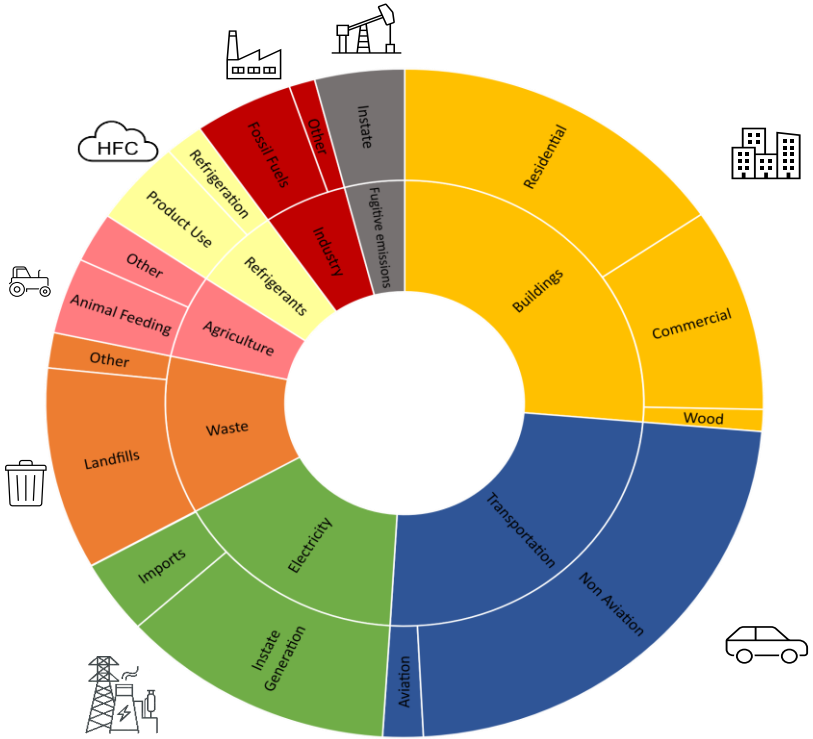
To achieve a goal of:

- **Net zero emissions by 2050**

Reference: NYS Environmental Conservation Law Section 75

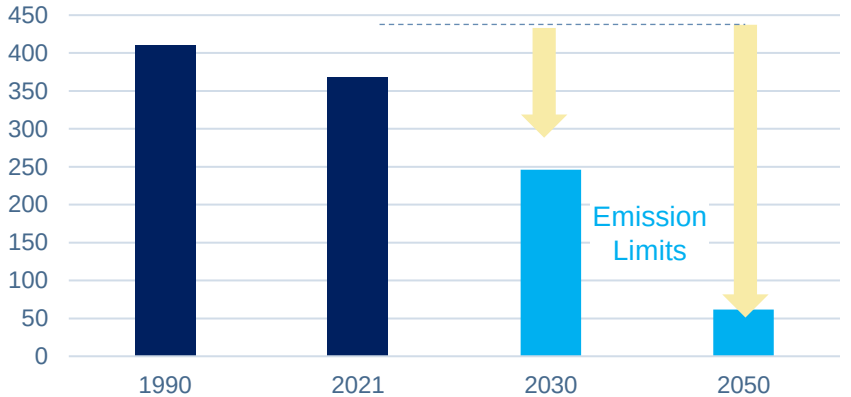
Greenhouse Gas Emission Reduction Requirements

Current Estimated Greenhouse Gas Emissions by Sector



2021 Calendar Year Emissions: Based on 2023 Statewide Greenhouse Gas Emissions Report.

New York State Greenhouse Gas Emissions
($MMtCO_2e$)



Sources: New York State Greenhouse Gas Inventory; § 496.4 Statewide Greenhouse Gas Emission Limits

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Scoping Plan climate.ny.gov

Climate Action Council + 7 Advisory Panels

- Transportation
- Buildings
- Electricity
- Industry
- Agriculture and Forestry
- Waste
- + Cross Sector Strategies

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New York's Climate Action Progress

Buildings

> New Efficiency: New York
> Carbon Neutral Buildings Roadmap
> Advanced Building Codes, Appliance and Equipment Efficiency Standards Act
> All-Electric Building Act

Leadership by Example

> BuildSmart (EO88)
> Sustainable Operations (EO22)
> Climate Change and DEC Action (CP-49)

Transportation

> EVolveNY
> Charge Ready NY
> Drive Clean Rebate
> Municipal Clean Vehicle Rebates

Resilience

> Community Risk and Resiliency Act
> Resilient New York
> CWCACJ Bond Act

Electricity

> Climate Leadership and Community Protection Act
> Regional Greenhouse Gas Initiative
> Clean Energy Standard
> NY-Sun

Climate Justice

Disadvantaged Community Investments

Local Governments

> Climate Smart Communities
> Clean Energy Communities

Short-Lived Climate Pollutants

> Methane Reduction Plan
> HFC Reduction Strategy and Regulations

… and more!

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Advance an economywide cap-and-invest program that establishes a declining cap on greenhouse gas emissions, limits potential costs to economically vulnerable New Yorkers, invests proceeds in programs that drive emission reductions in an equitable manner, and maintains the competitiveness of New York industries.

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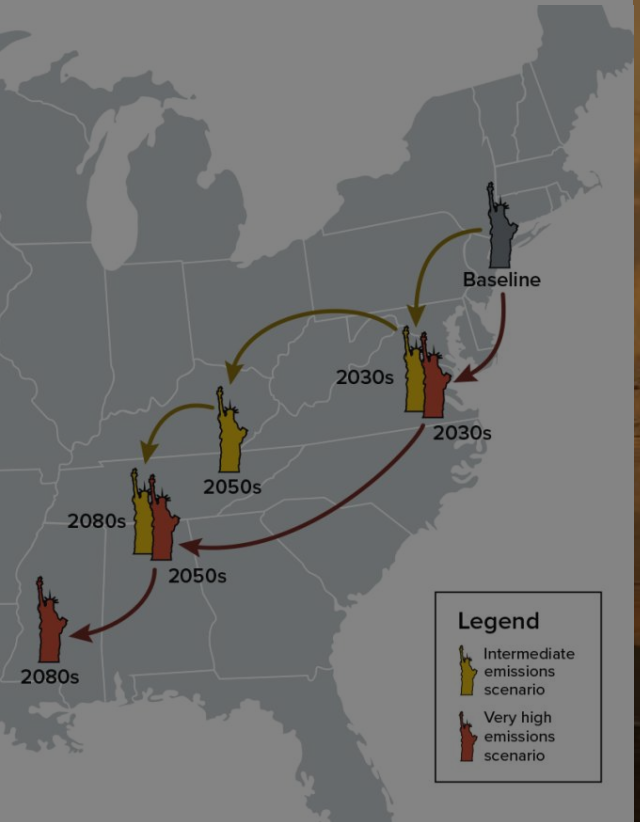
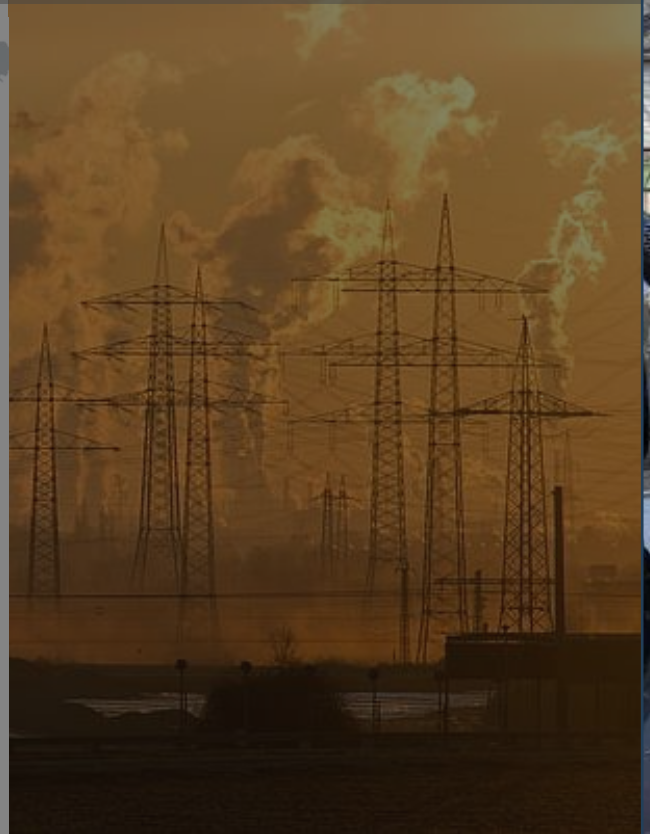
UNDERSTANDING THE CHANGES



REDUCING EMISSIONS



ADAPTING TO THE IMPACTS

NYS Adaptation and Resilience Plan

SOTS 2024 directive for
DEC, NYSERDA, and DOS […] **to develop a comprehensive climate change adaptation and resilience plan**.

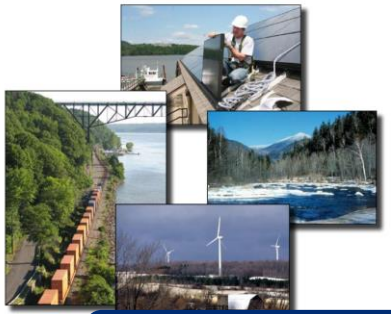
This statewide planning effort will **supplement ongoing work** to collect information and develop the resources needed **to support the design and implementation of cost-effective strategies to reduce current and future climate risks** – leveraging federal dollars and Environmental Bond Act investments to undertake dam removals, repairs to aging flood control structures, and advance green infrastructure projects."

Past Climate NYS Adaptation "Planning"

2010

State Sea Level Rise Task Force

2010



Climate Action Plan Interim Report

2013

NYS 2100 Report

2023

CLCPA Scoping Plan

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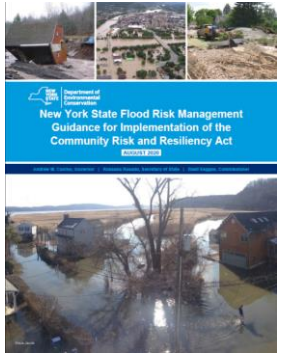
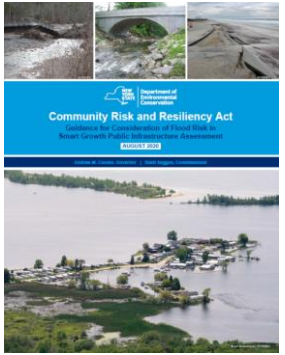
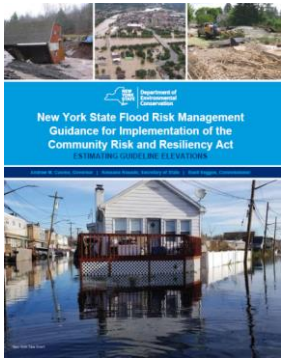
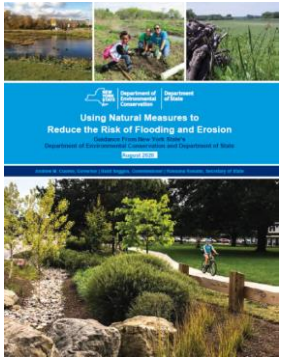
Community Risk and Resiliency Act

- Requires applicants for **major permits to consider climate change impacts**
- Adds mitigation of sea-level rise, storm surge and flooding to **Smart Growth Public Infrastructure Policy Act** criteria
- Authorizes DEC **require mitigation of significant climate risks** to any natural resource, public infrastructure or services, disadvantaged communities, or private property not owned by the applicant.
- Requires **guidance on implementation** (DEC, DOS)
- Requires **guidance on use of natural resilience measures** to reduce risk (DEC, DOS)









http://www.dec.ny.gov/energy/102559.html

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P6 NYCRR Part 490, Projected Sea-level Rise

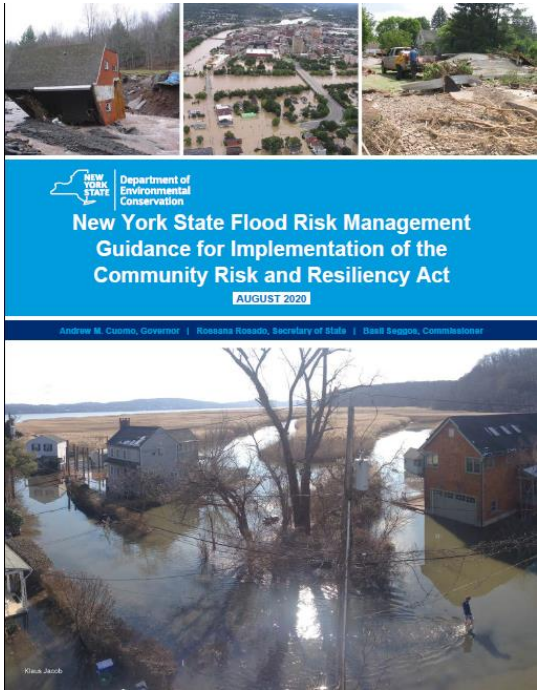
	Region	Long Island						New York City/Lower Hudson						Mid-Hudson					
	Descriptor	Low	Low-medium	Medium	High-medium	High	RIM	Low	Low-medium	Medium	High-medium	High	RIM	Low	Low-medium	Medium	High-medium	High	RIM
Time Interval	2030s	7	8	10	12	14	NA	6	7	9	11	13	NA	5	7	8	10	12	NA
	2050s	13	15	18	21	25	NA	12	14	16	19	23	NA	11	12	14	17	21	NA
	2080s	23	26	32	41	48	83	21	25	30	39	45	83	18	21	26	35	41	83
	2100	27	32	39	54	69	114	25	30	36	50	65	114	21	25	32	46	60	114
	2150	42	50	63	94	185	NA	38	47	59	89	177	NA	32	41	52	82	171	NA

Inches of rise relative to 1995-2014 baseline

NEW YORK STATE Department of Environmental Conservation

State Flood Risk Management Guidance

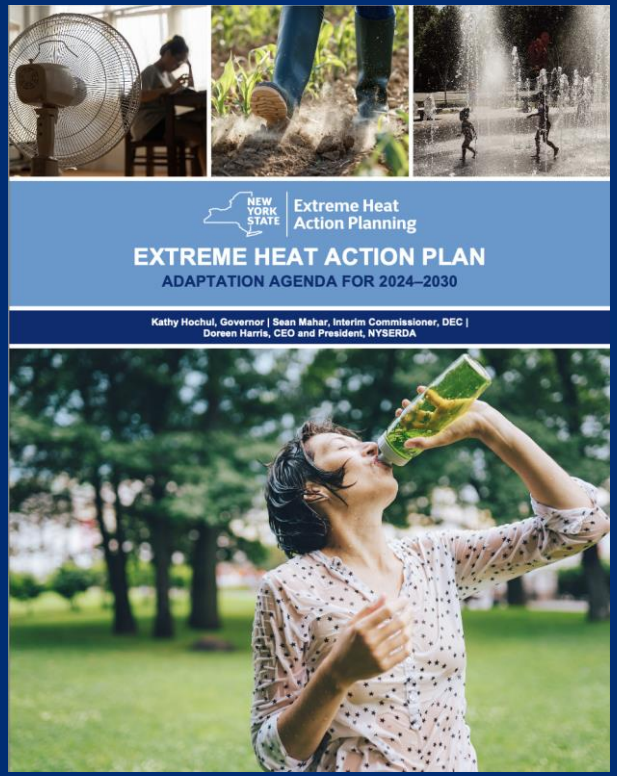
- Non-binding technical guidance to agencies.
- Guideline design elevations by structure type, tidal/nontidal.
- Available for incorporation into
  - CRRA topical guidance and CRRA program-specific guidance, regulations, etc.,
  - programs not covered by CRRA.



[CRRA Flood Risk Management Guidance (ny.gov)]

NEW YORK STATE Department of Environmental Conservation

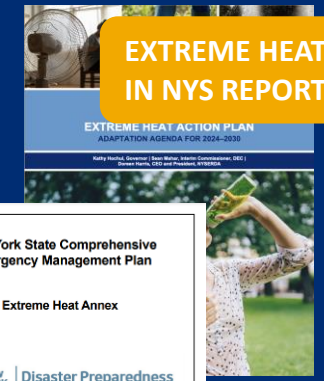
EXTREME HEAT ACTION PLAN

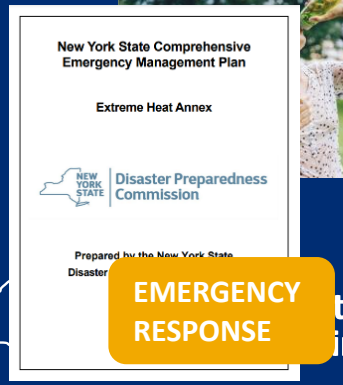


Putting Adaptation into Action

- Missions, goals, and principles
- 49 strategies in four action tracks
- Short- and mid-range goals
- Implementation and evaluation

LEARN MORE: on.ny.gov/extremeheat





EXAMPLE ACTIONS

BUILDING CAPACITY, SUPPORTING LOCAL ACTION

- Pilot programs for resilience hubs, community resilience networks
- High-resolution exposure maps, HVI updates

SUPPORT LONG-TERM COMMUNITY PREPAREDNESS

- Enhance access to cooling (cooling centers, at home, swimming)
- Support workers' health and safety

SUPPORT RESILIENT BUILDIGNS AND INFRASTRUCTURE

- Fund facility upgrades (community centers, anchors, educational facilities)
- Support resilience in congregate settings, facility planning

PRIORITIZENATURE-BASED SOLUTIONS

- Green infrastructure solutions, training programs, forsters

UHI MAPPING

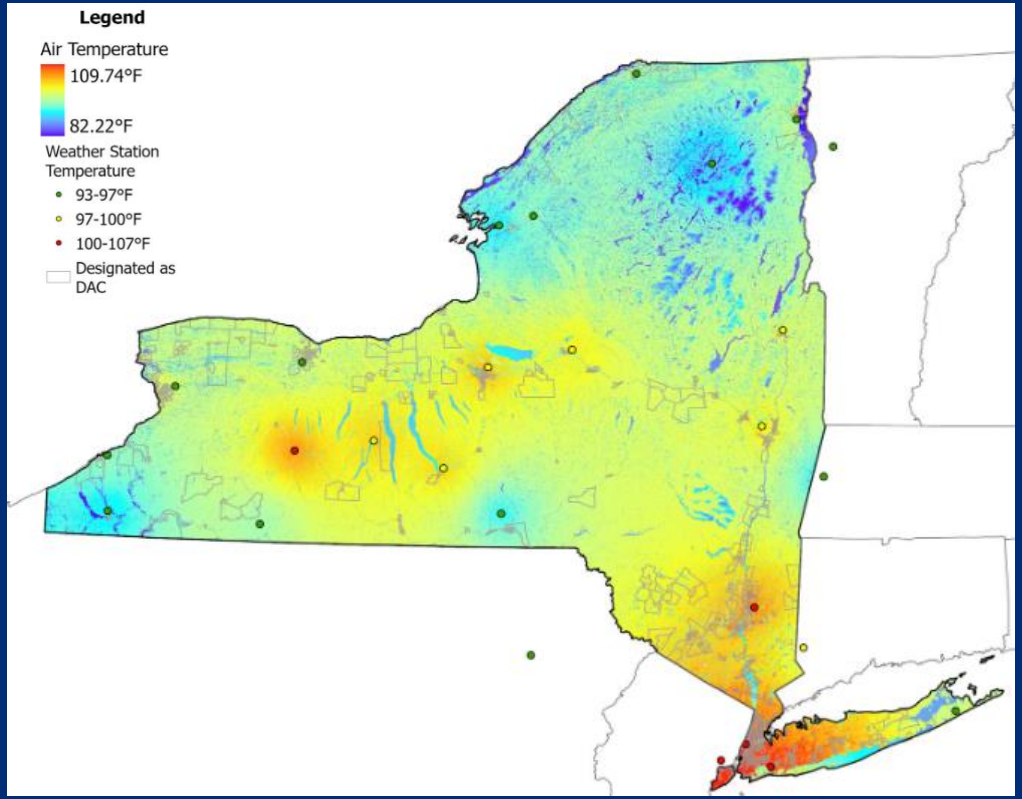
Identify urban disadvantaged communities with UHIs

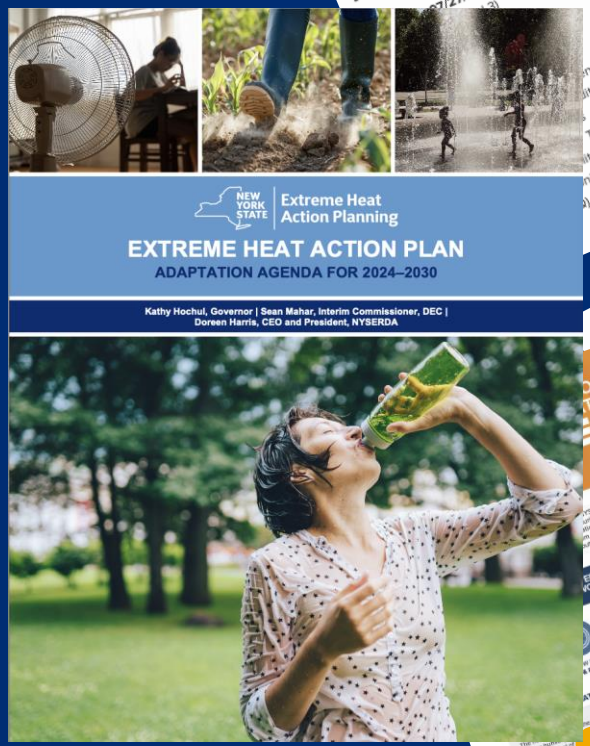
Statewide mapping

Statewide extreme-heat exposure maps (air temperature, wind chill, land-cover, solar radiation)

- Model exposure as a function of land cover, evaporation/energy balance, WBGT, components of anthropogenic heat
- Future climate change, land-use change pressures

Assessment of mitigation actions





CONNECT

EXTREME-EHAT@DEC.NY.GOV
ON.NY.GOV/EXTREMEHEAT

What is the Bond Act?

$4.2 BILLION

- Climate Change Mitigation
- Restoration & Flood Risk Reduction
- Open Space Land Conservation & Recreation
- Water Quality Improvement & Resilient Infrastructure

NEW YORK STATE

Clean Water, Clean Air & Green Jobs Environmental Bond Act

NEW YORK STATE | Climate Smart Communities

State Support for Local Climate Action

Assistance to communities to:

- Reduce greenhouse emissions
- Adapt to climate change

Voluntary. No fees. Sponsored by 7 NYS state agencies.

Comprehensive. Flexible.

NEW YORK STATE | Department of Environmental Conservation

CSC Coordinators: **Building Capacity in Communities**

NYS DEC Hudson River Estuary Program

Free assistance with

- Low-emission transportation planning
- Clean energy
- Climate adaptation and resilience planning
- Building relationships with state agencies and local governments

CSC Coordinators

NEW YORK STATE | Climate Smart Communities

Climate Smart Communities | About | Actions & Certification | Support | DASHBOARD | SIGN OUT

- About
- Actions & Certification
- Support
  - **CSC Coordinators**
  - CSC Scorecard
  - Regional Greenhouse Gas Inventories in NYS
  - Webinar Presentation Archive

Find a Coordinator in Your Region

Climate Smart Communities Coordinators are available to provide free support services to municipalities across the state as part of the Climate Smart Communities program. Coordinators assist and support local governments in taking action to reduce greenhouse gas emissions and adapt to climate change through outreach, planning, education, and capacity building.

CAPITAL REGION

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CENTRAL NEW YORK

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FINGER LAKES

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Thank You

Leo Matteo Bachinger

Program Manager

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Connect with us:

- DEC: www.dec.ny.gov
- Community Risk and Resiliency Act: www.dec.ny.gov/energy/102559.html
- Climate Smart Communities: www.dec.ny.gov/energy/76483.html
- Facebook: www.facebook.com/NYSDEC
- X (formerly Twitter): https://x.com/NYSDEC
- Flickr: www.flickr.com/photos/nysdec

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