

Community Risk and Resiliency Act

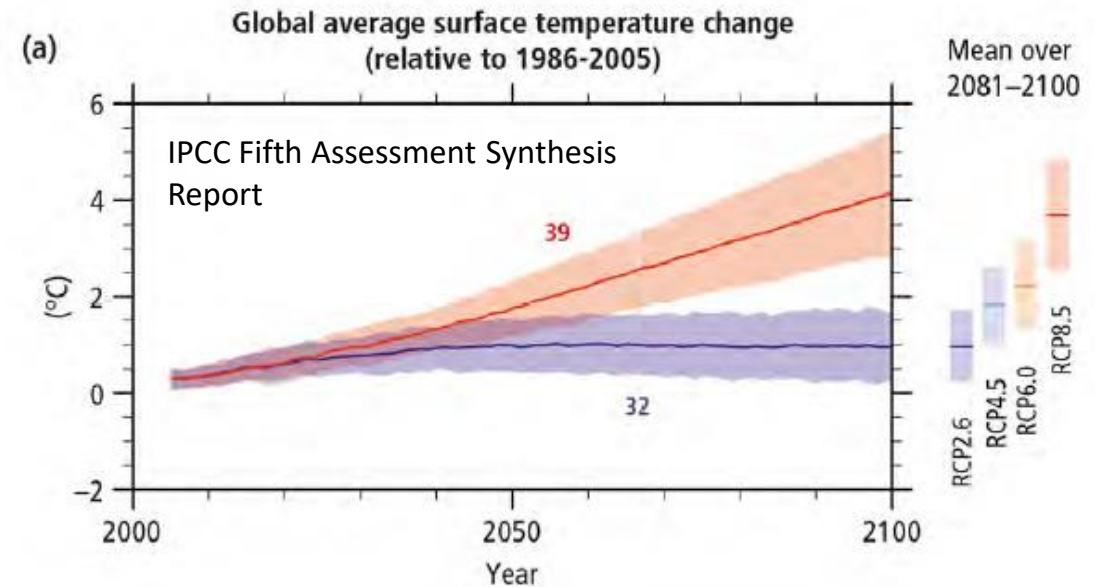
*Mainstreaming climate
change*



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Current Mitigation Commitments are Insufficient to Avert Dangerous Change

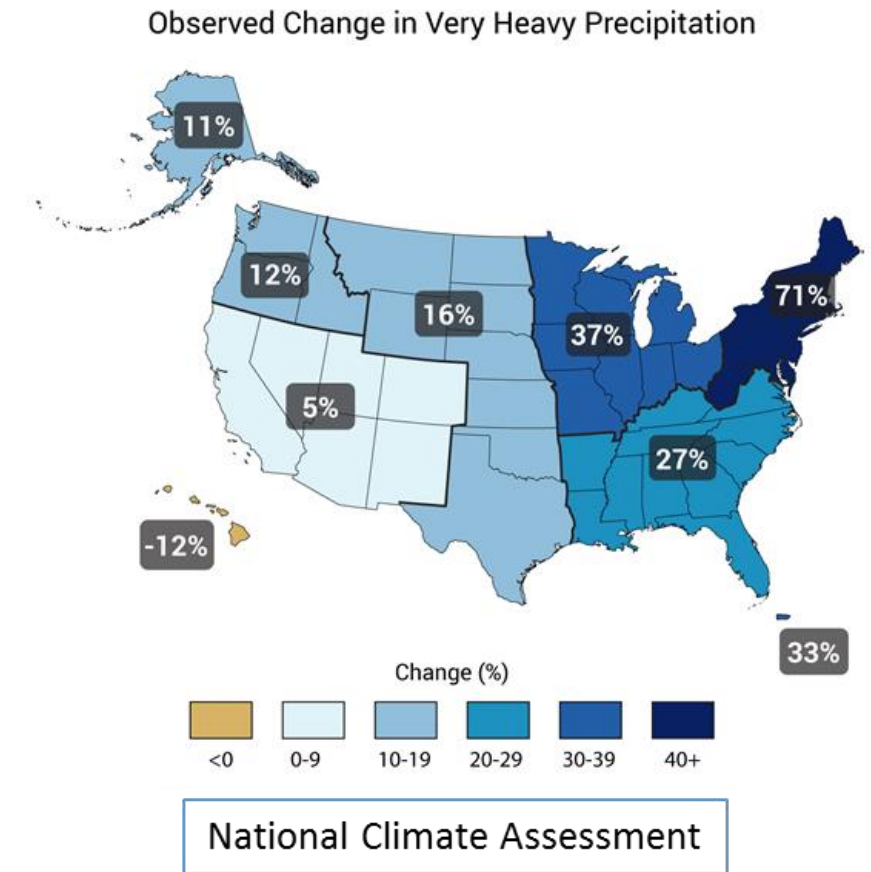
- On track to reach 560 ppm CO₂, mid- to late 21st century => 2 (more likely 3) to 4.5°C
- 3.5°C most likely by 2100 - Up to 5.5°C possible
- COP21 Intended Nationally Determined Commitments => 2.7-3.5°C by 2100



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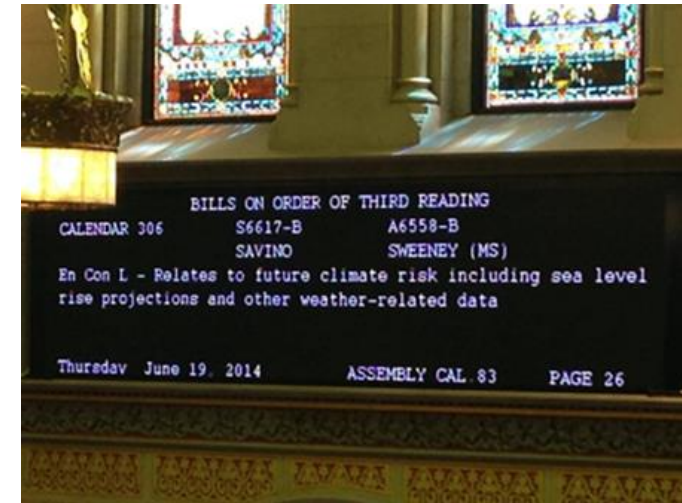
More Extreme Precipitation & Flooding

- Observed: Modest increases in annual precipitation-most regions since 1900
- Projected: Up to 26% increase by 2100 in some regions of NYS
 - Mostly in winter
- Projected increasing frequency, duration, intensity of extreme events



Community Risk and Resiliency Act

- Requires sea-level rise projections (DEC)
- Requires applicant demonstration of consideration of sea-level rise, storm surge and flooding in specified facility-siting regulations, permits and funding programs, and guidance on implementation (DEC, DOS)
- Adds mitigation of sea-level rise, storm surge and flooding to Smart Growth Public Infrastructure Policy Act criteria (DEC,DOS)
- Requires model local laws to enhance resiliency (DOS,DEC)
- Requires guidance on use of natural resiliency measures to reduce risk (DEC, DOS)



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Regulatory Programs Covered by CRRA

DEC Permits

- Oil and natural gas wells
- Major projects:
 - Protection of waters
 - Freshwater wetlands
 - Tidal wetlands
 - Coastal erosion hazard areas
 - Mined land reclamation
 - Sewerage service
 - Liquefied natural gas and liquefied petroleum gas facilities

DEC Facility-siting Regulations

- Hazardous waste transportation, storage and distribution facility siting
- Petroleum bulk storage (including conformity with the uniform fire prevention and building code)
- Hazardous substance bulk storage



Funding Programs Covered by CRRA

- Water Pollution Control Revolving Fund (EFC)
- Drinking Water Revolving Fund (DOH, EFC)
- Local waterfront revitalization (DOS)
- Open space acquisition (DEC, OPRHP)
- Agricultural and farmland protection (DAM)
- Landfill closure assistance (DEC)
- Coastal rehabilitation project assistance (DEC)
- Open space project operation and maintenance agreements (OPRHP)



CRRA's Benefits

- Greater resiliency for communities, infrastructure and ecosystems
- Greater public and staff awareness of climate hazards and risk-reduction practices
- Written standards and guidance
- Inter-regional and cross-program consistency for standards and permit requirements
- Standardization of data sources, decision-support tools



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CRRA Implementation 1

Promulgate 6NYCRR Part 490, Projected Sea-level Rise

Inches of rise relative to 2000-2004 baseline

	Region	Long Island					New York City/Lower Hudson					Mid-Hudson				
	Descriptor	Low	Low-medium	Medium	High-medium	High	Low	Low-medium	Medium	High-medium	High	Low	Low-medium	Medium	High-medium	High
Time Interval	2020s	2	4	6	8	10	2	4	6	8	10	1	3	5	7	9
	2050s	8	11	16	21	30	8	11	16	21	30	5	9	14	19	27
	2080s	13	18	29	39	58	13	18	29	39	58	10	14	25	36	54
	2100	15	21	34	47	72	15	22	36	50	75	11	18	32	46	71



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CRRA Implementation 2

Issue State Flood Risk Management Guidance

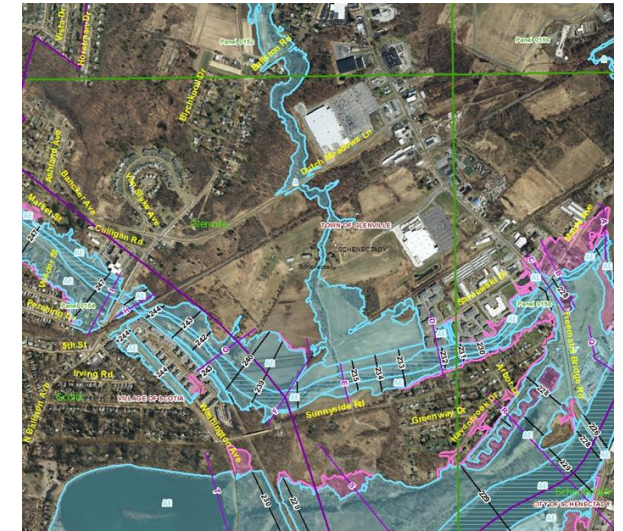
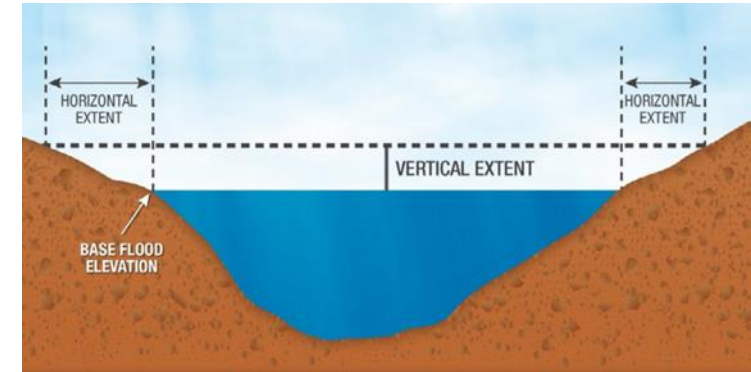
Available for incorporation into

- CRRA topical guidance and CRRA program-specific guidance, regulations, etc.
- Programs not covered by CRRA
- 6 NYCRR Part 502
- DEC's model local law for flood damage prevention, optional additional language
- Uniform Fire Prevention and Building Code



State Flood Risk Management Guidance

- General Guidance for All Flood Risk Areas
 - Avoid FEMA mapped 1% flood risk zone if possible
 - Site and design to the most restrictive of the following:
 - The elevation and horizontal flood hazard area resulting from adding an additional 2 ft. to the base flood elevation (BFE + 3 ft. for critical facilities)
 - The area and elevation of the 0.2% annual chance flood (500-year flood)
 - Climate informed science approach where applicable
- Specific criteria for by structure type, tidal/nontidal



CRRA Implementation 3

Issue Additional Required Guidance

- Model Local Laws
- Smart Growth Public Infrastructure Project Assessment Guidance
- Use of Natural Resiliency Measures Guidance



CRRA Implementation 4

Issue Associated Guidance

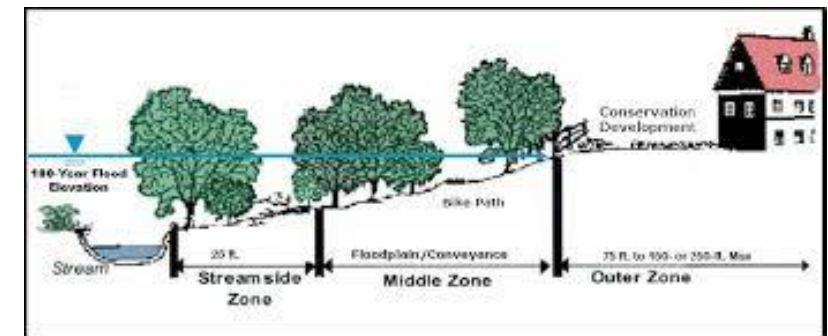
- Observed and Projected Climate Change in New York
- ECL Article 15/CWA Section 401 Guidance
- Tidal Wetland Migration Guidance
- Mitigation of Floodplain Encroachment
- Coastal Consistency Review Guidance
- Living Shorelines in the Marine District Guidance



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Article 15/Section 401 Guidance

- I. Guidance for review of bridges, culverts and other structures
 - a. General and specific design requirements
 - b. High-risk areas
 - i. conditions requiring larger structures
 - c. Low-risk areas
 - i. conditions where smaller structure, smaller height or less embeddedness may be allowed
- II. Streamway setback recommendations



Natural Resilience Measures Team Charge

Develop “guidance on use of resiliency measures that use natural resources and natural processes to reduce risk.”

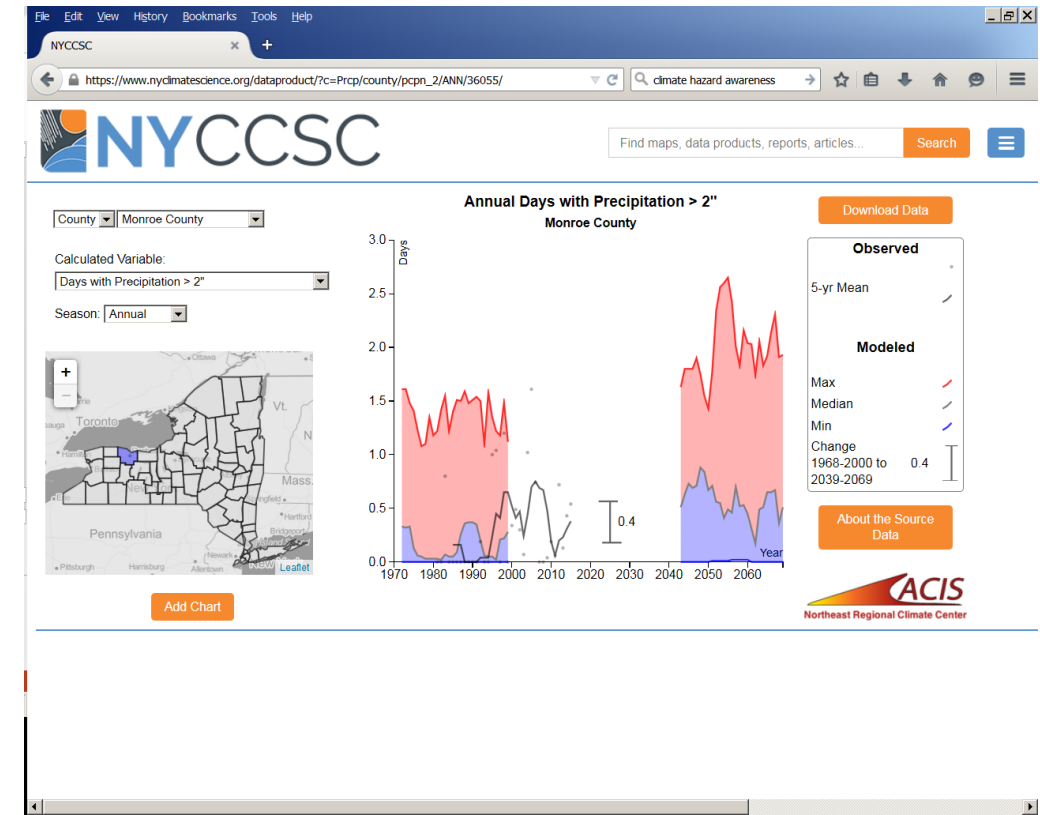
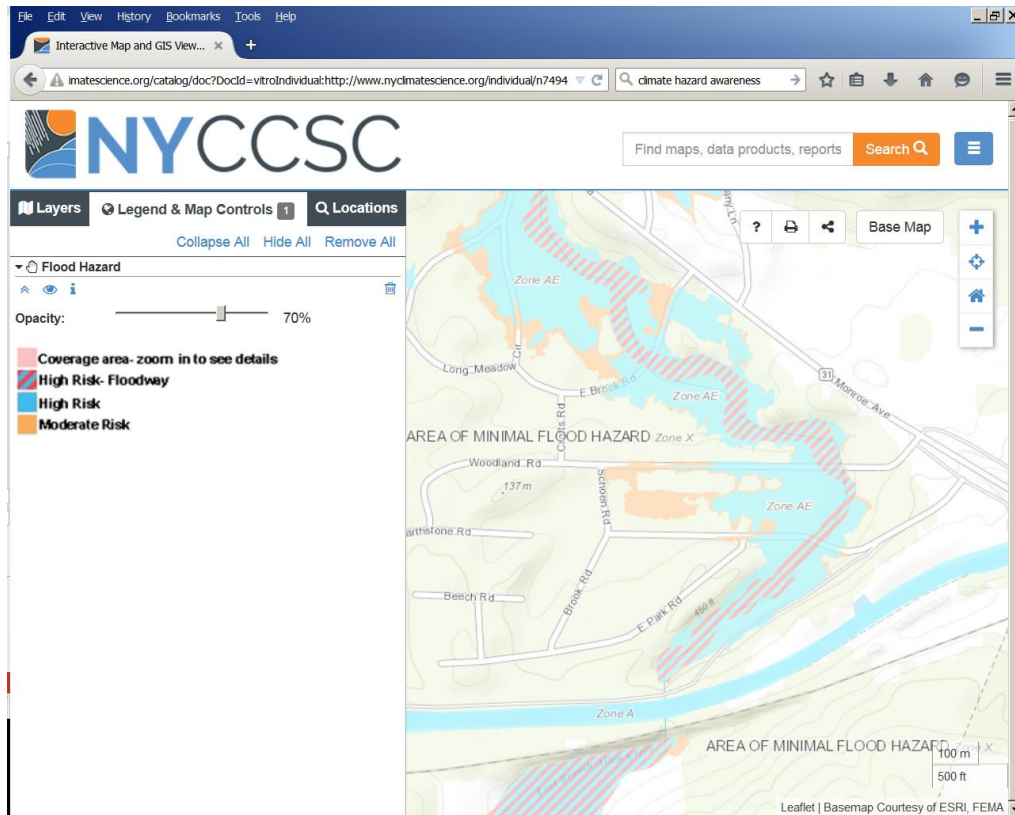
- Principles for use of natural resiliency measures
- Recommended practices
- Protective feature summaries



Climate Change Science Clearinghouse

Maps, data and documents

Designed for agency and municipal decision makers



<https://www.nyclimatescience.org>

Thank You

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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
- Twitter: twitter.com/NYSDEC
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