

Energy Efficiency and Housing Advisory Panel

December 9, 2020
Meeting 6



**Climate Action
Council**

Meeting Procedures

Before beginning, a few reminders to ensure a smooth discussion:

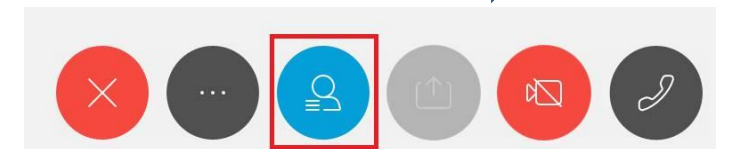
- > Panel members should be on mute if not speaking.
 - > If using phone for audio, please tap the phone mute button.
 - > If using computer for audio, please click the mute button on the computer screen (1st visual).
- > Video is encouraged for Panel members, in particular when speaking.
- > In the event of a question or comment, please use the hand raise function (2nd visual). You can get to the hand raise button by clicking the participant panel button (3rd visual). The chair will call on members individually, at which time please unmute.
- > If technical problems arise, please contact Guy Rice
Guy.Rice@cadmusgroup.com



You'll see  when your microphone is muted



Hand Raise

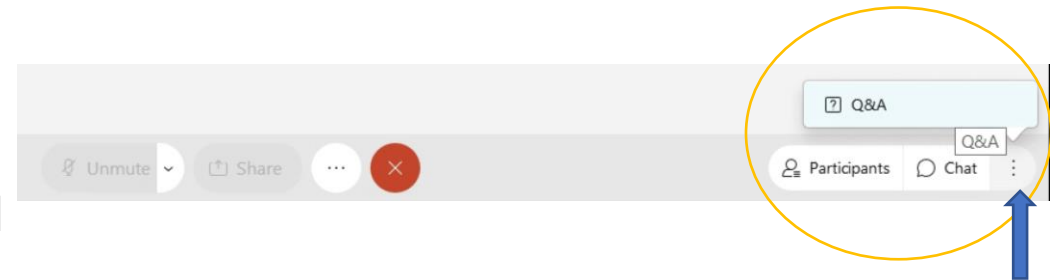


Procedure for Public Input

The Advisory Panel welcomes public comments and questions both during and in between its meetings

- > To submit feedback to Panel Members and agency staff during the meeting, members of the public can use the WebEx Q&A function located in the right bottom corner.
 - Comments and questions submitted through WebEx will be aggregated and submitted to panel members to be included in deliberations.

- > To submit feedback between Advisory Panel meetings, please email eehpanel@nyserda.ny.gov



Agenda

- > Welcome (5 minutes)
- > Recap from November CAC Report-Out (5 min)
- > Focal discussion: Insights from Existing Policies and from the Stakeholder Input Survey (55 min)
 - Presentation with clarifications and questions (30 min)
 - Discussion: What have you learned, and how should this inform our work? (25 min)
- > Focal discussion: Resilience and Climate Adaptation (45 minutes)
 - Presentation from DEC, DOS, and NYSERDA (30 min)
 - Questions and discussion (15 min)
- > Updated work plan and schedule for 2021 (5 min)
- > Wrap Up

Recap from CAC Report-Out

CAC Feedback for EE&H Advisory Panel

Differentiate new recommendations from ongoing NYS activities

- > NYS is already doing a lot but needs to scale up. Panel should consider how to differentiate between what the State is already doing and recommendations for new activities/policies or different or scaled-up versions of existing activity.

Considerations for Disadvantaged Communities

- > Processes for asking and understanding what disadvantaged communities want and see as benefits, to shape the Panel's strategies and recommendations

Place emphasis on Consumer Protections and Commitment to MWBEs

COVID-19 considerations in buildings

- > Maintain consideration of ASHRAE recommendations for delivery of fresh air and how infection control measures might interface with the Panel's recommendations

In the recording of the November 24, 2020 Climate Action Council Meeting, discussion of the EE&H Advisory Panel starts @ minute 51:20. Available at: <https://climate.ny.gov/Climate-Action-Council/Meetings-and-Materials>

Cross-Panel Highlights

Land Use and Local Government Topics

- > Increase coordination with EE&H to promote coordinated regional approaches to meet climate goals in a manner that integrates housing needs
- > Address how to properly site renewable resources on buildings
- > Strategy under consideration:
 - Establish statewide higher energy codes, benchmarking, building performance standards, and PACE financing

Insights from Existing Policies & the Stakeholder Input Survey

Objective: Share the big take-aways from the Existing Policy listing and from the Survey

- **Summary of Existing Policy listing**
 - Policies to study more and build upon
 - Reflection
- **Summary of Survey**
 - Process, and responses
 - Reflection
- **Key Themes**
- **Summary and Discussion**
 - What have we learned about concerns/interests/potential?

Existing Policies

Excel | Advisory Panel Members > Energy Efficiency and Hou... 201109 Existing Policies - Saved

Home Insert Formulas Data Review View Help Tell me what you want to do Bruce, Rachel (NYSHCR) is also editing

fx

B	C	D	E	F
Recommend or More Research Needed	Inter	Location/name	Link	brief description
Recommend		Portland, OR	https://www.portland.gov	Effective on and after January 20, 2020 permit applications for demolition of a h or earlier will be required to deconstruct using a Certified Deconstruction Contra treduciton in carbon.
Recommend	#	Marin County CA - Embodied carbon initiative	https://www.marincount	The coolest implemented policy thing I know about on this front is the Marin Co concrete initiative -
Recommend	#	UN SDGs	https://sdgs.un.org/goals	Several UN SDGs speak to our built environemnt. Although not specific, these r articles and processes that may be of use.
	#	Nudging for reduced GHG	https://www.ideas42.org	"The Power of Nudging: Using Feedback, Competition and Responsibility Assignr Non-Residential Setting"
	#	Baltimore, MD - deconstruction	https://associationsnow.c	Investing in deconstruction

>

Policy List

Gut Check

+

Four Main Subject Ranges

behavior change (info to increase market adoption, nudges)

market development & transformation (info to increase market adoption, aspirational goals, governance, workforce training)

financial approaches (carrots including financing and incentives, technology innovations, training and education, resilience and **Climate Adaptation**)

enforceable requirements and restrictions (sticks including regulations, bans, embodied carbon)

Keep all these active even if we focus our recommendations in one or two of the approaches.

Implementation needs to seek to understand the ripple effects and be crafted to ensure those ripples are positive.

Specific Policies

**...for
additional
research
and to
potentially
build from**

- **UN SDGs (aspirational goals in use by many SUNY campuses)**
- **Oregon Point-of-Sale (one working example of point-of-sale ratings and process)**
- **CA Gridworks (suite of local and statewide policies)**
- **Carbon Neutral Cities Alliance (50 existing policies from cities, including ease and efficacy info)**
- **Toronto Zero Emissions Buildings Framework (tiered iterative approach to near ZNE)**
- **Rewiring America (inspirational guide to full electrification)**
- **NY City LL97 (can be a tool for developing a market carbon cost)**

Specific Policies

**...for
additional
research
and to
potentially
build from**

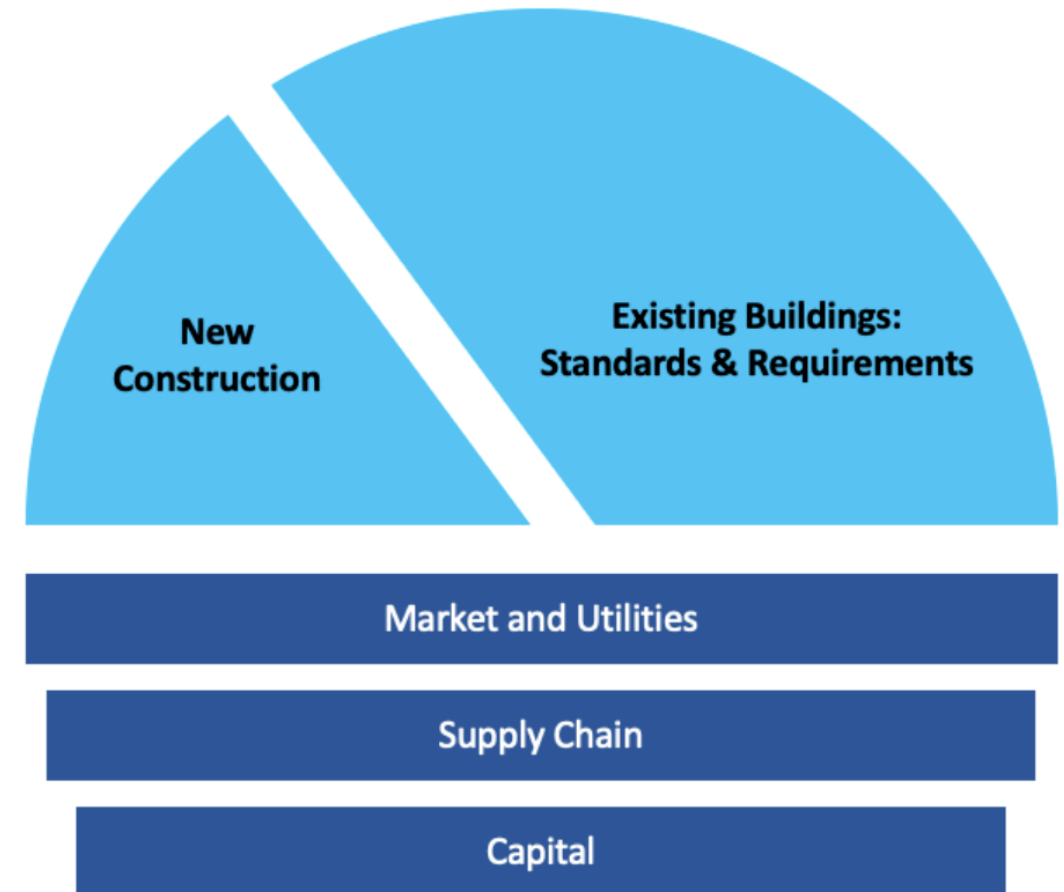
- **Marin County CA low-carbon concrete (see GreenNY specs in process for concrete and insulations)**
- **Gas Ban (health and safety-based decarbonization strategy)**
- **Portland Deconstruction (an approach to reduce embodied carbon waste)**
- **California Storage (creative up-front investment in energy storage for benefit to bill)**
- **Maine heat pump incentives (100,000 heat pumps by 2025...inc. training)**
- **CA weatherization incentives (achieves substantial savings, aware of hazmat and systems)**

A New Resource

Building Decarbonization Roadmap produced for the United States Climate Alliance (USCA)

USCA commissioned Rocky Mountain Institute (RMI) to produce a Building Decarbonization Roadmap. The Roadmap was prepared with contributions from the USCA Building Transformation Working Group, which includes staff from various state government agencies and offices. This Roadmap is a tool designed to summarize and help prioritize the highest-impact actions that states can take to decarbonize buildings.

BUILDING TRANSFORMATION PATH



Clarifications and Questions



Stakeholder Input Survey Summary

Motivations for Stakeholder Survey

- CLPCA invites significant and frequent public input to the decision-making process.
- In addition to the Advisory Panel member input and thoughts, developed this tool to elicit responses from stakeholders
 - Top ideas or recommendations for public policy/action
 - What promising models from other jurisdictions, analogous industry or policy experiences (i.e. approaches, policies, programs) should the panel consider
 - What potentially unintended consequences should the panel be aware of and seek to mitigate?
 - What actions should we be considering to reduce greenhouse gas emissions? Has the approach/thinking changed in light of the COVID-19 pandemic?



Survey Responses

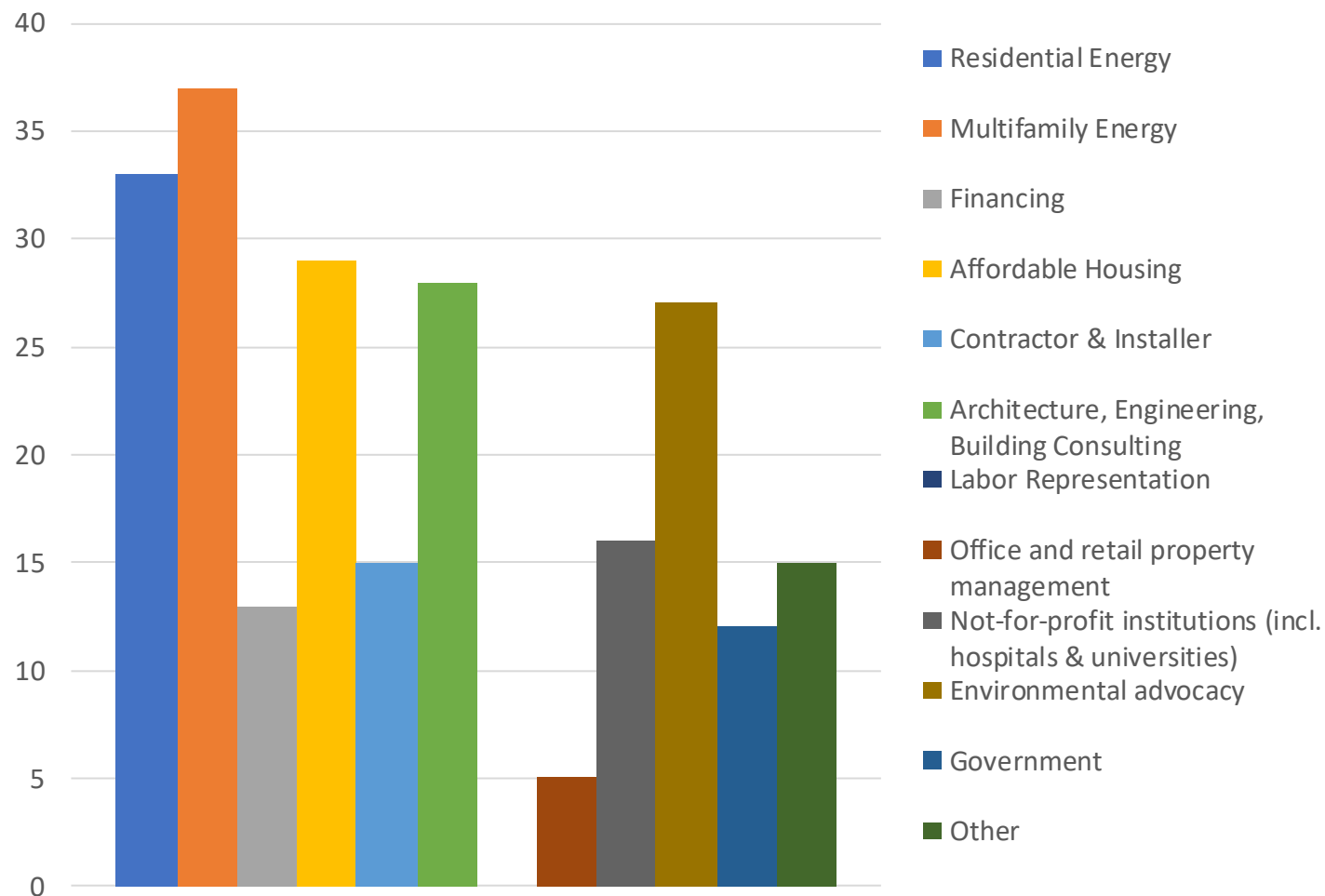
Demographic information

- Survey was open from 10/30/2020 to 12/2/2020
- Asked Advisory Panel members to circulate survey as an additional way to elicit recommendations from stakeholders
- Total of 68 responses, with 65 unique respondents
- Respondents report working in all REDCs of the State of New York
 - 45 reporting working statewide
 - 12 report they are based in New York City

Demographic information

Respondents' self-identified perspectives

Question: Please choose which of the following perspectives most align with your experience.*



*Respondents could choose more than one perspective

Demographic information

Sector of respondents' organizations

Public/Private	Industry	Count
Public	Education	1
Public	Infrastructure	2
Public	Local Government	4
Non-profit	Advocacy	5
Non-profit	Energy Efficiency & Clean Heating	9
Non-profit	Housing	6
Non-profit	General Climate Issues	2
Private	Consulting Services	12
Private	Design/Architecture	4
Private	Energy Installation/Provider	8
Private	Energy Solutions	1
Private	Engineering	4
Private	Finance	1
Private	Housing	2
Private	Technology & Innovation	2
Private	Transportation	1
Other	Other	1
TOTAL		65

Survey Questions

- Top ideas or recommendations for public policy/action (up to 5)
- What promising models (i.e. approaches, policies, programs) should the EE&H Advisory Panel consider that are underway in other jurisdictions, or from analogous industry or policy experiences?
- In developing its recommendations, what potentially unintended consequences should the EE&H Advisory Panel be aware of and seek to mitigate?
- What actions is your industry/stakeholder groups considering to reduce greenhouse gas emissions? Has the approach/thinking changed in light of the COVID-19 pandemic?

Policy Action Responses

Categorical Summary

“Please briefly describe the action. Identify what market barriers and/or other policy objectives it will help to address. If available, please provide backup materials (by including web links).” (up to 5 answers permitted)

- Regulations
- Financing and Incentives
- Training and Education
- Information to Increase Market Adoption
- Technology Innovation
- Resilience and Climate Adaptation
- Cross Panel topics
- Embodied Carbon
- Strategies for Governance
- Equity in Planning and Implementation

Regulations

Includes codes, appliance standards, building performance standards, mandates, rate changes

- Phase out fossil fuel burning appliances and fossil fuels in buildings, with requirements to meet emissions goals and deadlines in legislation/code
- Stricter building codes (e.g., toward net-zero emissions, electrification)
- GHG emissions targets for buildings with deadlines for required compliance
- Planning for gas industry transition away from natural gas and the transition to electrification
- Rates – special heat pump/all electric rate, expanded low-income rate
- Pass a statewide existing building decarbonization law to support local govt action and a "building decarbonization authority" able to raise capital through debt obligation issuance (comparable to clean water services)
- Add'l input on carbon: value of carbon, creation of a carbon tax and/or trading system

Equity in Planning and Implementation

Includes LMI and Disadvantaged Communities focus

- Equitable electrification, reduce energy burden, and more "equitable" rate design
- Institute equity audits to identify institutional practices that produce discriminatory practices
- Economic support for just and equitable transition
- Examine program eligibility parameters for LMI and definition of "affordable housing"
- Funding: Provide funding for remediation and deferred maintenance, fuel oil replacement, coordinated grants, massive funding for lowest-income owners
- Workforce: Encourage job growth by training in communities with high % of LMI and people of color
- Focus on health of LMI residents in rental housing for Indoor Environmental Quality, condition of unit
- Inclusion of LMI Communities in CAC subcommittees

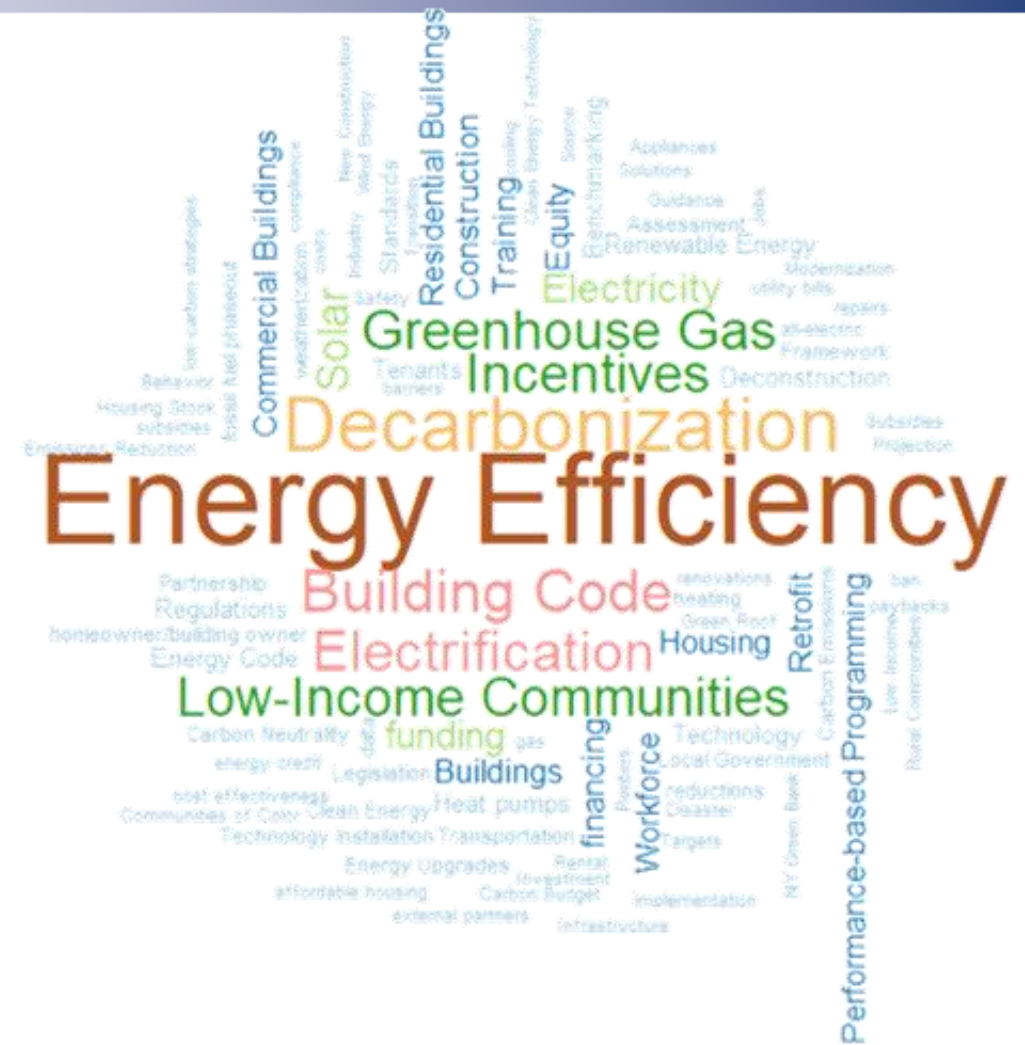
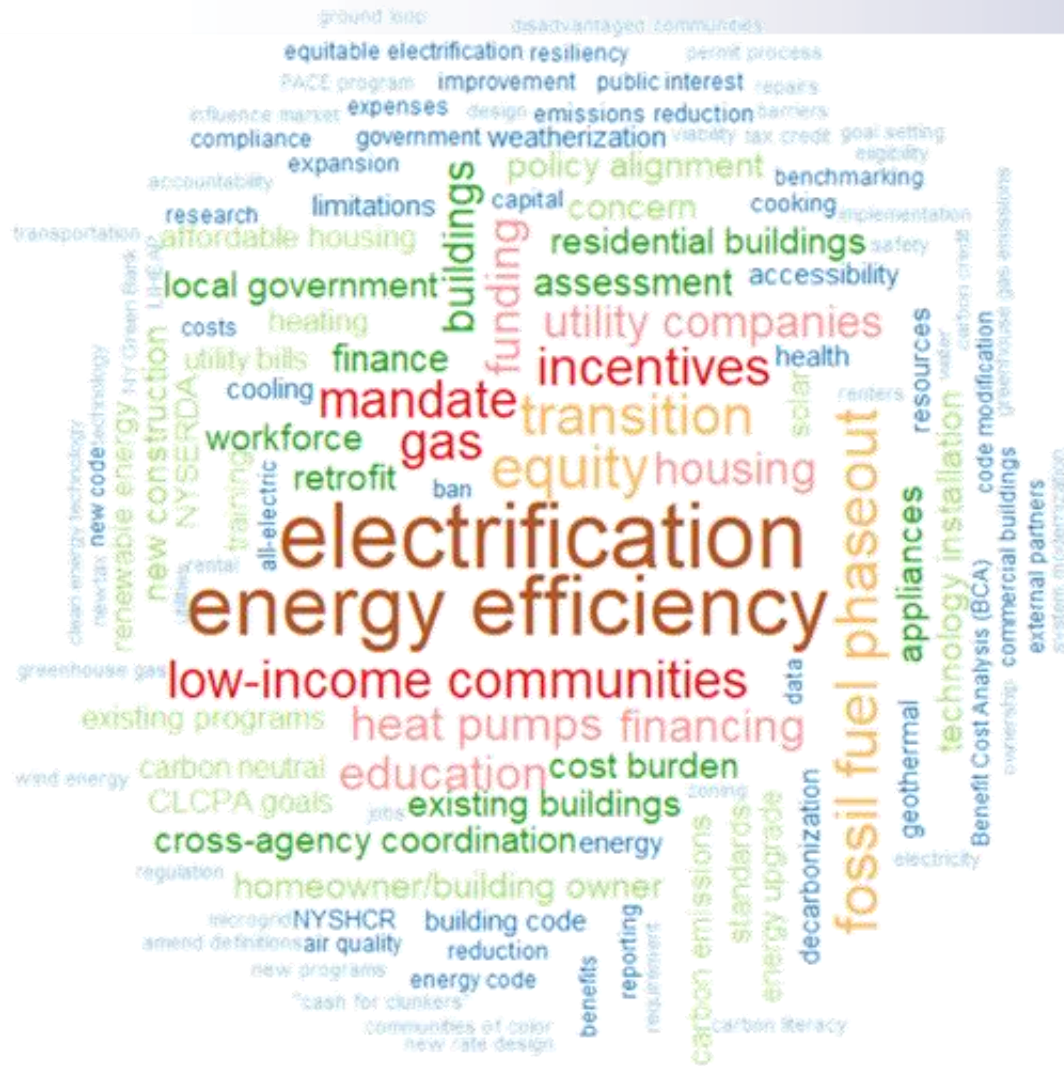
Clarifications and Questions

Frequently appearing themes

between policy action responses from survey and existing policy listing

Frequent themes from Survey responses

Frequent themes from Existing Policy listing



25 Minutes - Clarifications, Questions and Discussion

**What have you learned, and how
should this inform our work?**

Resilience and Climate Adaptation

Objective: Understand Resilience and Climate Adaptation Strategies for Buildings...

... to inform alignment and incorporation with building decarbonization strategies

- **Overview Presentations**

- Mark Lowrey (DEC) - flood risk and Community Risk and Resiliency Act guidance documents
- Barbara Kendall(DOS) - voluntary model local laws
- Amanda Stevens (NYSERDA) - building design for an adapting climate

- **Q&A and Panel Discussion**



Department of
Environmental
Conservation

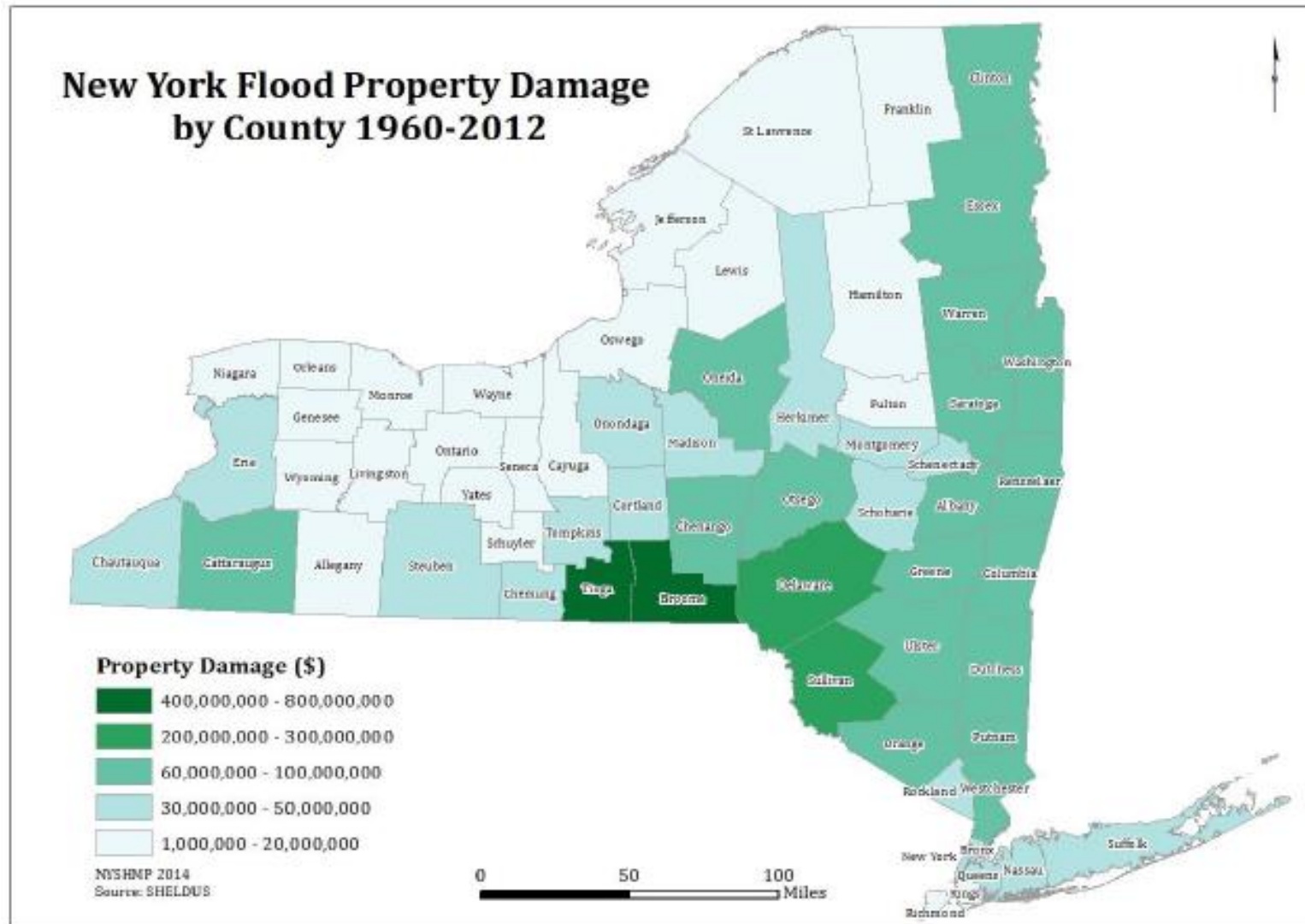
Community Risk and Resiliency Act



Mainstreaming consideration of climate change

Mark Lowery
Assistant Director
Office of Climate Change
New York State Department of
Environmental Conservation

Flood Risk in New York



NYS Insured Losses

Decade	Losses (millions)
1950s	\$44
1960s	\$37
1970s	\$866
1980s	\$152
1990s	\$757
2000s	\$762
2010s	\$11,547



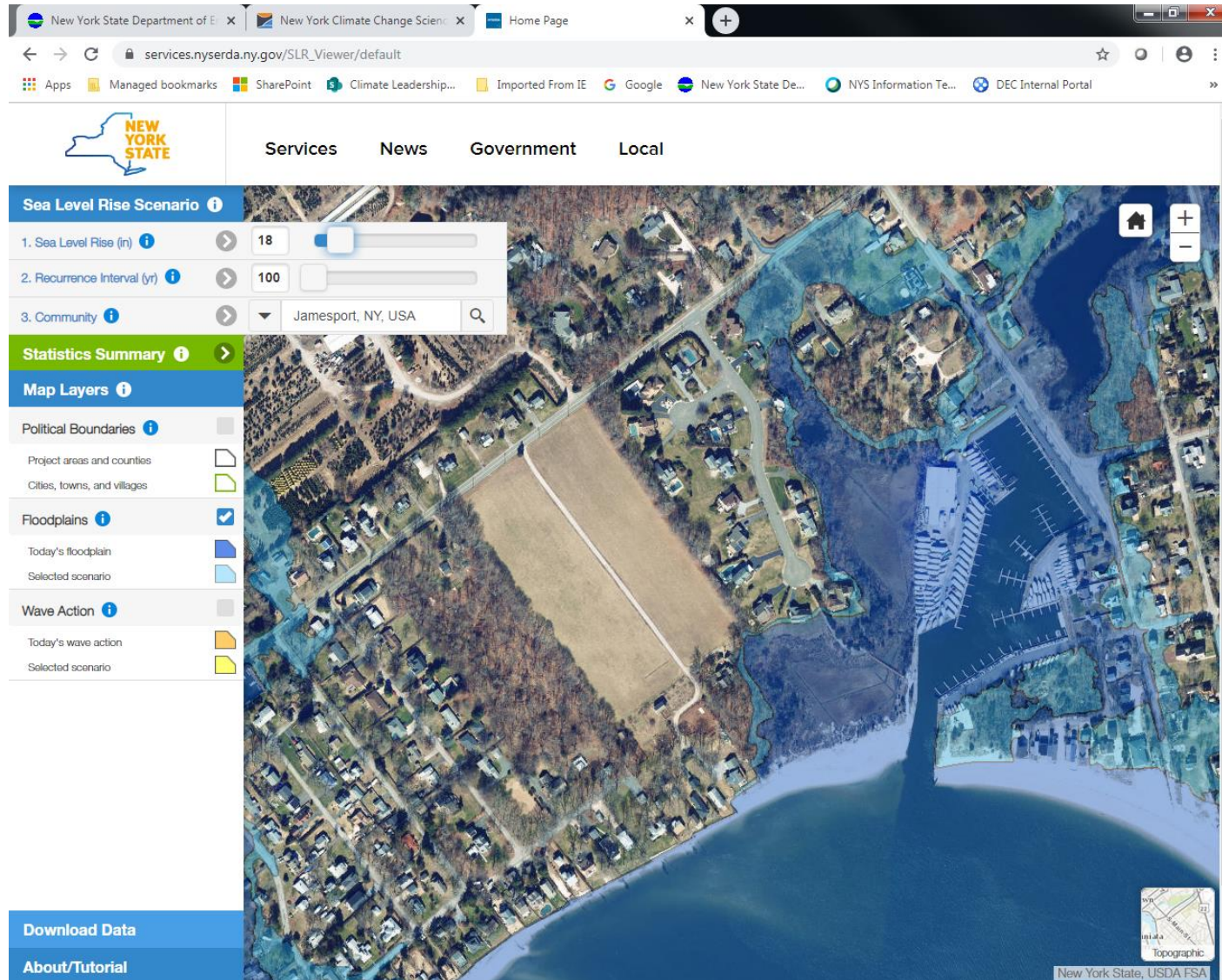
Department of
Environmental
Conservation

Unstoppable Sea-level Rise

- Loss of populated areas
- Loss of tidal ecosystems
- Threats to infrastructure
- Salt-water intrusion

Projected Sea-level Rise, Long Island
(inches of rise relative to 2000-2004 baseline)

	Low	Low-medium	Medium	High-medium	High
2020s	2	4	6	8	10
2050s	8	11	16	21	30
2080s	13	18	29	39	58
2100	15	21	34	47	72



Too Much Water When We Don't Want it, Too Little When We Do

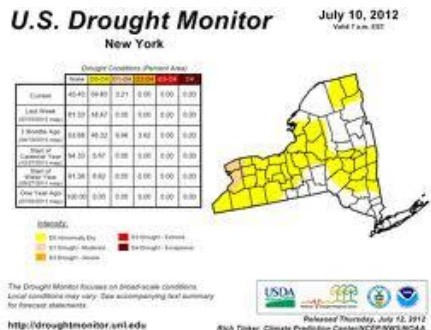
- Reduced summer rainfall may affect supply
- Reduced flows on larger rivers
- Flooding potential to increase water pollution
- Changes in accretion and scour
- Landslides

Increase in extreme precipitation events since 1950s.

1958–2016



- Capital Region Projected Annual Precipitation:
 - up to 15% increase by 2050s
 - Up to 26% increase by 2100



Community Risk and Resiliency Act (2014)

as amended by the Climate Leadership and Community Protection Act (2019)

- Requires sea-level rise projections (DEC; adopted 2017)
- Requires model local laws to increase resilience (DOS, DEC; released 2019)
- Requires consideration of climate change by applicants for major permits and in DEC facility-siting regulations
- Requires applicants demonstrate consideration of sea-level rise, storm surge and flooding in specified funding programs
- Adds mitigation of sea-level rise, storm surge and flooding to Smart Growth Public Infrastructure Policy Act criteria
- Authorizes DEC to 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>



Department of
Environmental
Conservation

CRRA Guidance Documents

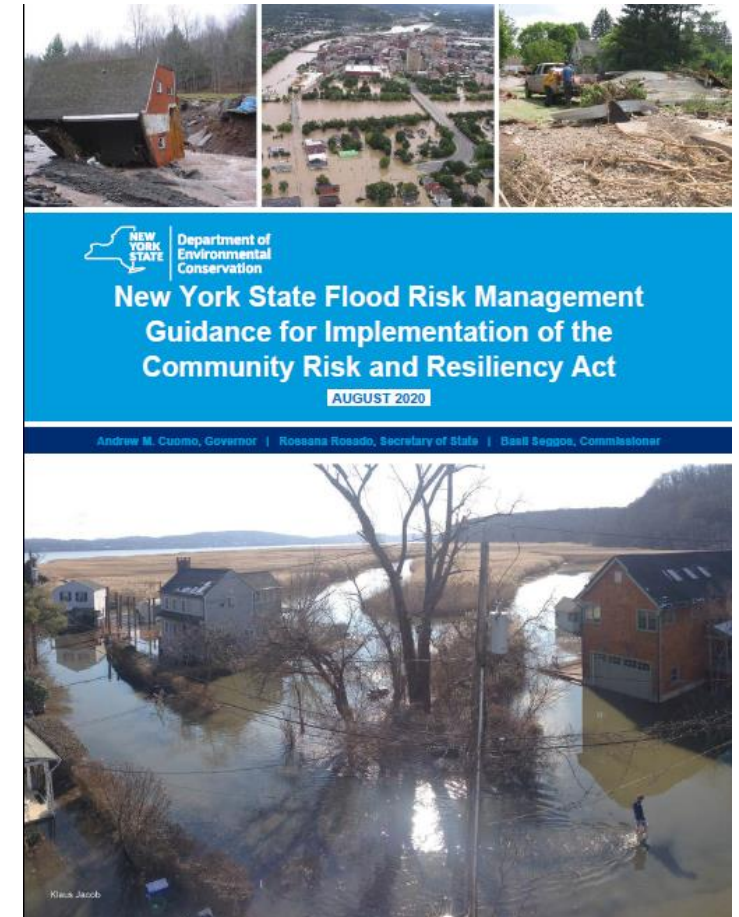
- New York State Flood Risk Management Guidance (SFRMG)
- Guidance for Smart Growth Public Infrastructure Assessment (SGG)
- Using Natural Measures to Reduce the Risk of Flooding and Erosion (NRMG)
- Estimating Guideline Elevations (EGE)



<https://www.dec.ny.gov/energy/102559.html>

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.



General Flood-risk Management Guidelines

- The vertical flood elevation and corresponding horizontal floodplain determined by a climate-informed science approach in which adequate, actionable science is available.
- The vertical flood elevation and corresponding horizontal floodplain that result from adding two feet (three feet for critical facilities) of freeboard to the base flood elevation and extending this level to its intersection with the ground.
- The vertical flood elevation and corresponding horizontal floodplain associated with the 0.2-percent annual chance flood.



CRRA and the Flood Risk Management Guidance do not

- require any municipal action,
- provide funding,
- directly affect flood insurance premiums,
- directly amend the building code,
- directly establish permit issuance or design standards,
- address coastal or riverine erosion hazards,
- provide a comprehensive flood-risk management or climate adaptation program.



Options for Local Adoption of SFRMG Guidelines

Adopt greater freeboard requirement

- NYS Uniform Code requires 2 feet
- Codes Council approval required

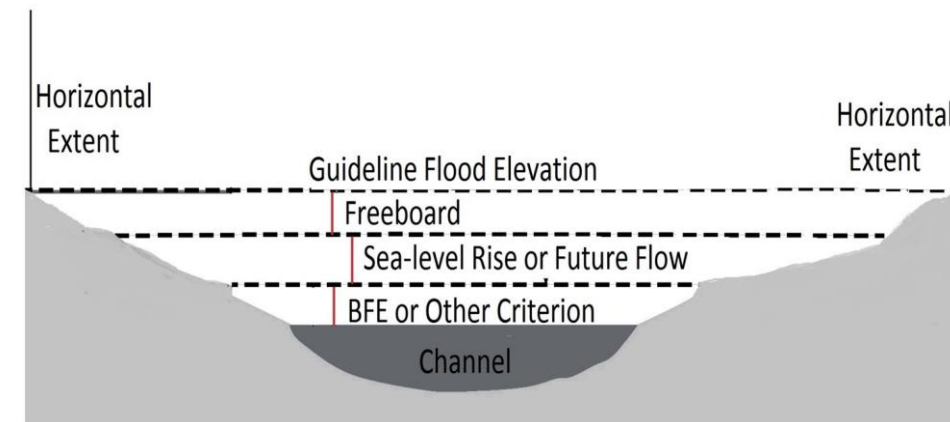
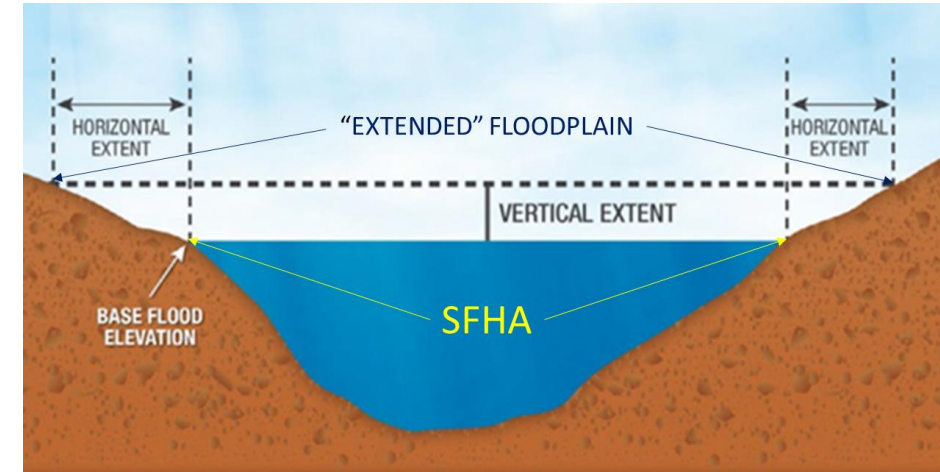
Extend area of freeboard requirement

- DOS Model Local Law 4.1
- Overlay district
 - 0.2% floodplain
 - Extension of BFE plus freeboard
 - future 1% floodplain (climate-informed science)

Adopt design flood elevation greater than base flood elevation

- DOS Model Local Law 4.3.2
- Overlay district
 - 0.2% floodplain
 - future 1% floodplain (climate-informed science)

See climatesmart.ny.gov, PE7 actions



Department of
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Conservation

Thank You

Mark Lowery

Assistant Director

Office of Climate Change

New York State Department of
Environmental Conservation

625 Broadway

Albany NY 12233-1030

Mark.Lowery@dec.ny.gov



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
- Flickr: www.flickr.com/photos/nysdec



**Office of Planning
and Development**

Using Model Local Laws to Increase Resilience

Climate Act Panel on Energy Efficiency and Housing

Barbara Kendall, Coastal Resources Specialist

An Office of the New York Department of State

December 2020

Model Local Laws: Local Implementation of CRRA

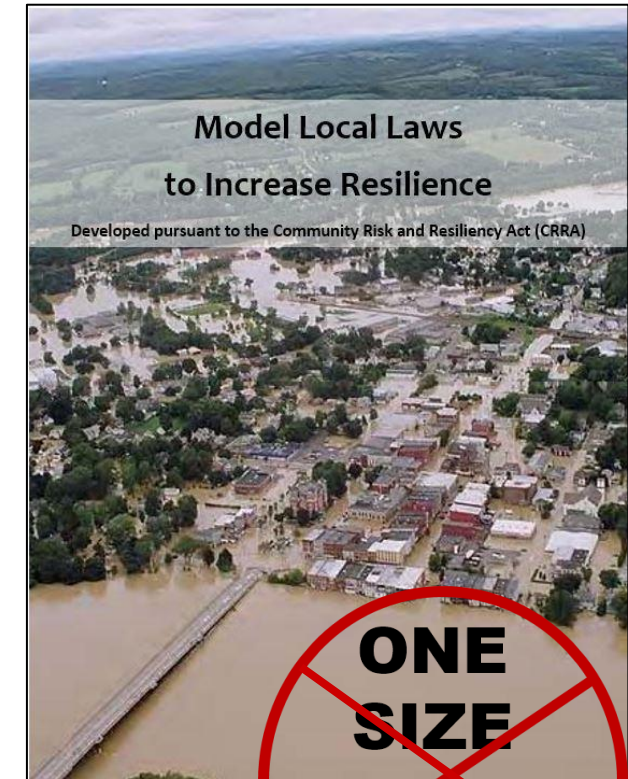
Importance of local government

Models created from:

- Existing model laws
- Good examples of current local laws
- Combining sections from various laws using professional expertise

Adapt for local use

- Plug in sections to update existing laws *OR*
- Use entire model law for topics not currently addressed



**ONE
SIZE
FITS
ALL**

December

CHAPTERS

1

Basic Land Use Tools for Resiliency

2

Wetland and Watercourse
Protection Measures

3

Coastal Shoreline
Protection Measures

4

Management of Floodplain
Development

5

Stormwater Control Measures

Go to: www.dos.ny.gov/opd/programs/resilience



**DOS MODEL LOCAL
LAWS (MLLs) TO
ENCOURAGE
BUILDING
ELEVATION**

**MLLs
SECTION**

Allow increased
maximum building
height

1.2.2

- Adapted from the Town of Islip (Long Island)
- Provide an alternative way to measure height when an existing building in the 100-year floodplain is being elevated
- Allow elevation of existing homes even where it would create a non-compliance to height and setback
- No zoning variance needed - eliminates a step in the approval process



Source: Larry Moss

DOS MODEL LOCAL LAWS (MLLs) REQUIREMENTS FOR ELEVATED BUILDINGS	MLLs SECTION
Design requirements for elevated buildings	1.4.4.1

- Require visual mitigation involving porches, stair direction, raised front yards, or landscaping
- Model adapted from NYC Zoning Article VI, Special Regulations, Ch. 4



DOS MODEL LOCAL LAWS (MLLs) REQUIREMENTS FOR ELEVATED BUILDINGS	MLLs SECTION
Non-conversion agreements	1.4.4.2

- Require signed non-conversion agreements for areas under elevated buildings
- Adapted from Village of Freeport, Long Island



Town of Stony Point, Hudson
River Hurricane Sandy 2012

DOS MODEL LOCAL
LAWS (MLLs) TO
MITIGATE
NONCONFORMING
USES

MLLs
SECTION

Prohibit substantial
improvements to non-
conforming uses or
structures

1.3.1

- Model adapted from the City
of Utica Zoning code

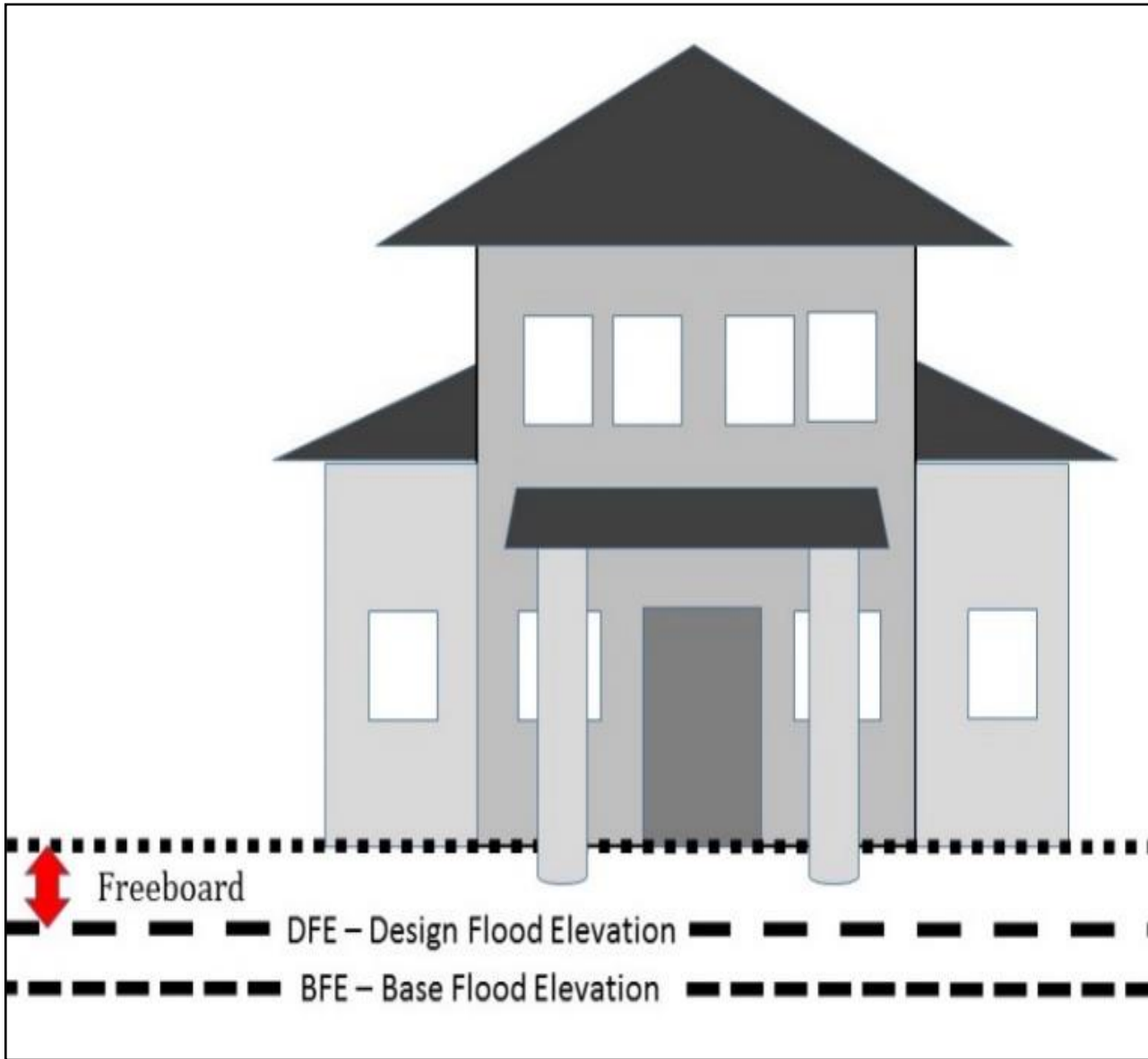


Town of Dover, Tenmile River floodplain

DOS MODEL LOCAL LAWS (MLLs) TO IMPROVE FLOOD DAMAGE PREVENTION LAW	MLLs SECTION
Establish design flood elevation to capture lands that flood adjacent to 100-yr floodplains	4.3.2
Repetitive damage provision	4.3.4
Cumulative substantial improvement	4.3.5

- Models from NYS DEC – show how to amend the standard Flood Damage Prevention Law to incorporate these provisions

Replace BFE with Design Flood Elevation (DFE)



- Current freeboard (2 ft.) based on BFE (100 yr FP)
- DFE can be higher than BFE

Examples of basis for DFE:

- 500-yr flood elevation
- Extra height added to BFE
- Historical deficiencies
- Climate-informed science (ex. future conditions hydrology)



DOS MODEL LOCAL LAWS TO ALLOW FOR TEMPORARY STRUCTURES

MLLs SECTION

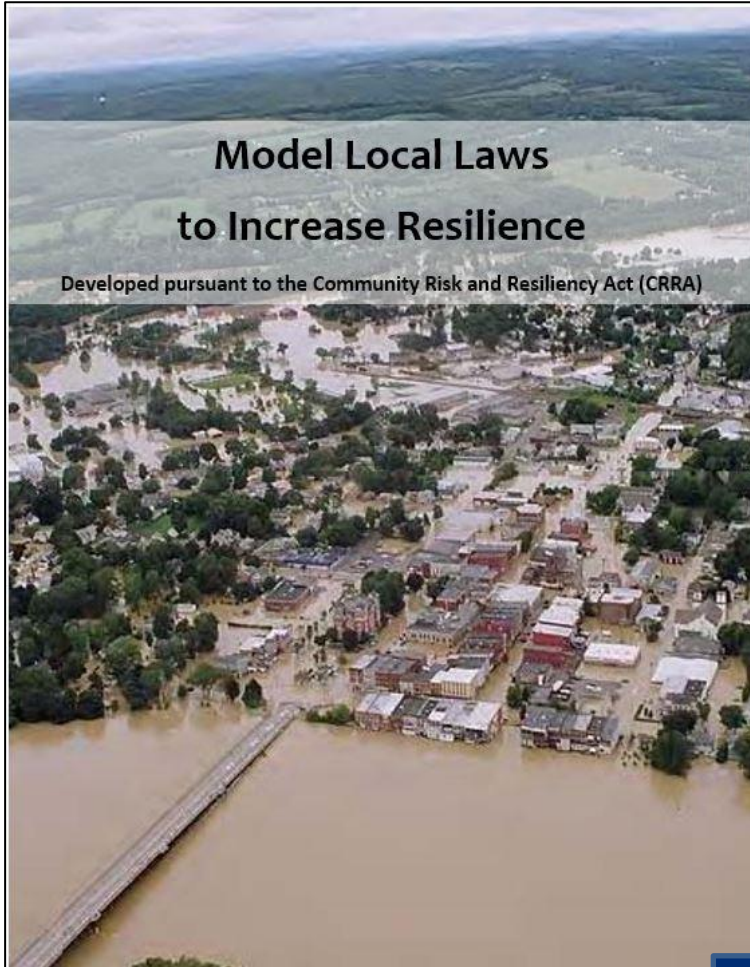
Allow temporary
emergency dwelling
permits

1.4.1

Temporary mobile
office units

1.4.3

- 1.4.1 - Adapted from the Town of Aurora, NY Zoning Law
- 1.4.3 - Adapted from Nags Head, North Carolina (Islip, Warwick, and Brockport in NY have similar provisions)
- Both include requirements for property setbacks, utilities, and time frame for removal



Office of Planning, Development & Community Infrastructure

**www.dos.ny.gov/opd
(518)474-6000**

Division of Local Government Services

**www.dos.ny.gov/LG
(518)473-3355**

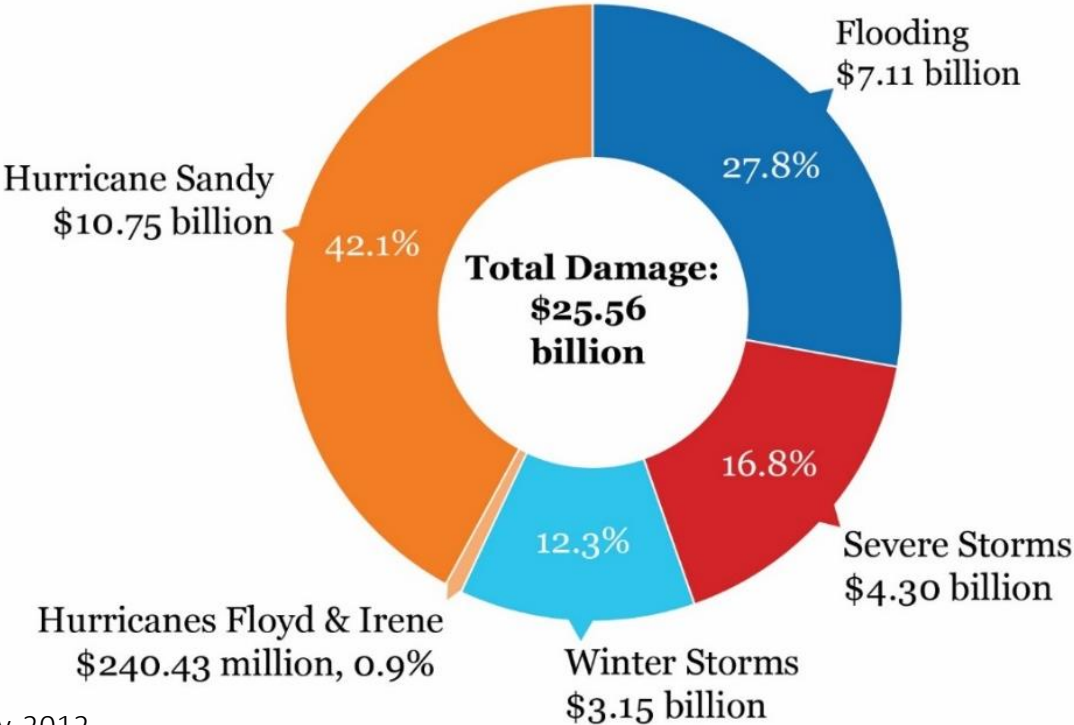
www.dos.ny.gov/opd/programs/resilience

Adapting Buildings for a Changing Climate

Amanda Stevens
Project Manager, Environmental Research



Estimated Total Statewide Building Damage, 1960-2014 (2014 USD)



Source: FEMA; Breezy Point, NY after Hurricane Sandy, 2012



Source: Duane Warren; Buffalo, NY after Snowvember, 2014



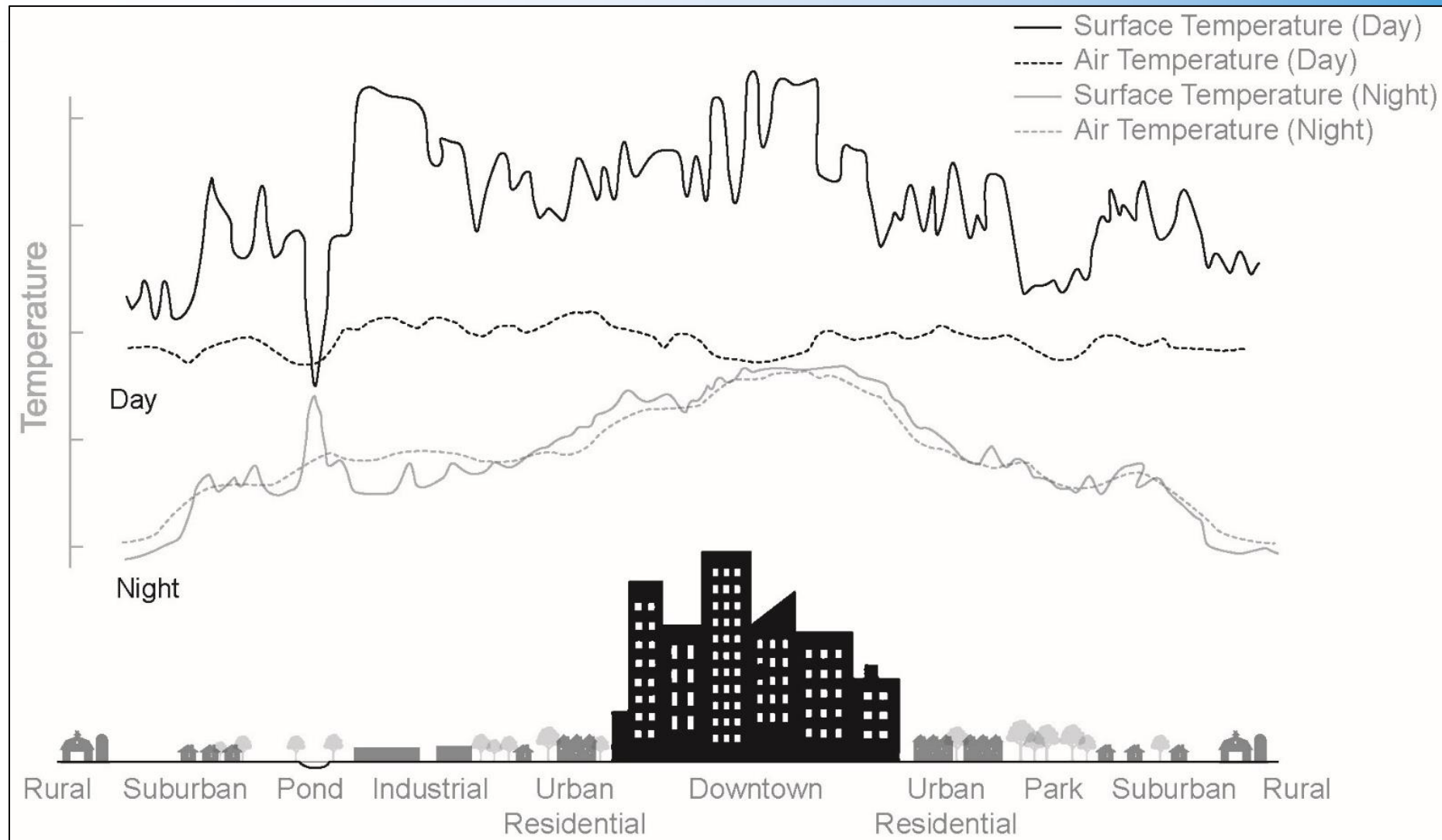
Impacts of Extreme Temperatures

- > The number of days over 90°F is projected to increase for every region in the state.
- > The frequency and duration of heat waves (defined as three or more consecutive days with maximum temperatures at or above 90°F) are also expected to increase.

Energy Efficiency / Climate Resilience Nexus

- > Any measure that reduces load on the grid has resilience co-benefits
 - For example, reducing strain on the grid during a heat wave will lessen the potential for a power outage
- > Solar + storage reduces emissions while also potentially supplying power to critical systems during an outage

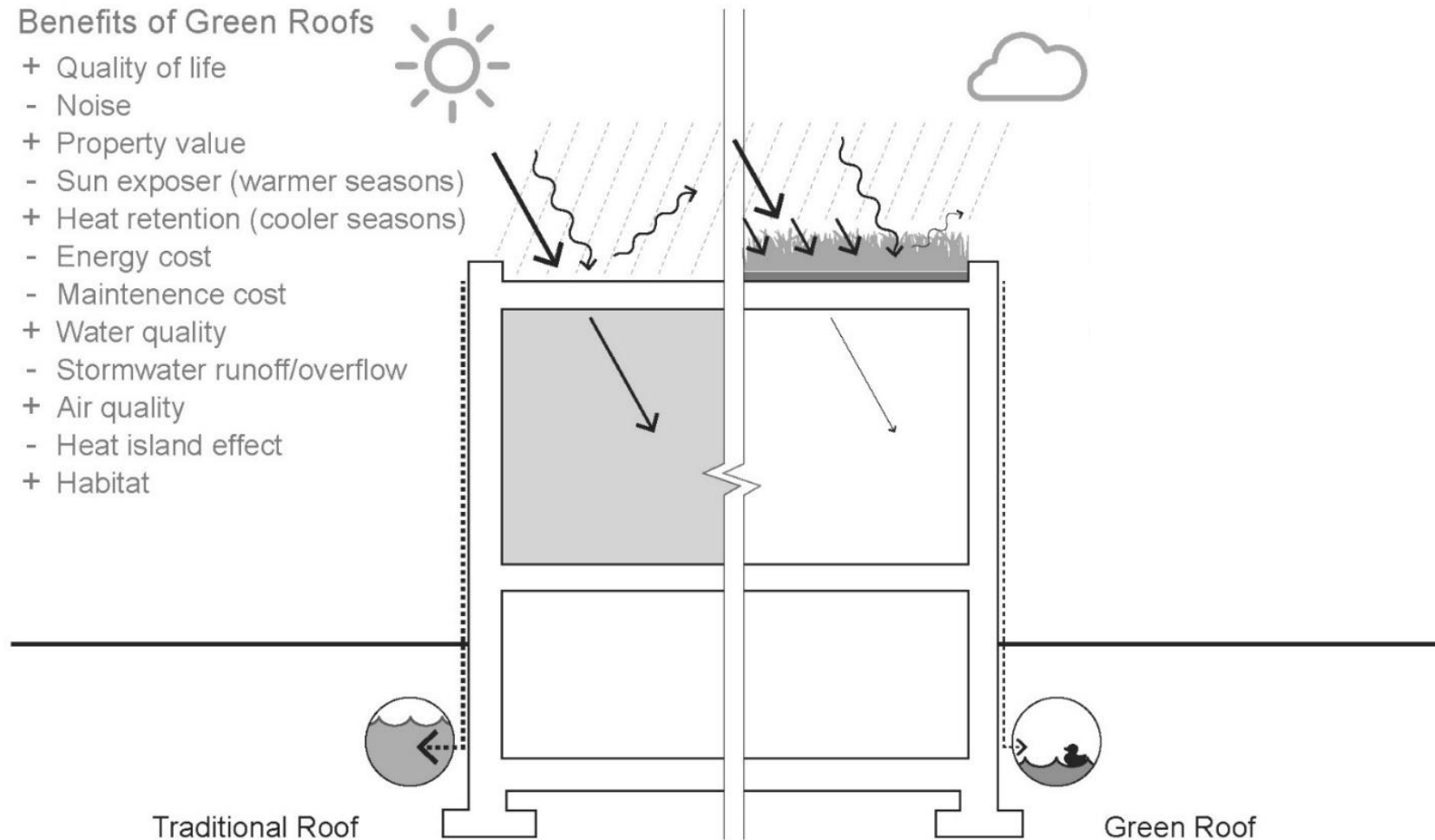
Urban Heat Island



Green Infrastructure – Green Roofs

Benefits of Green Roofs

- + Quality of life
- Noise
- + Property value
- Sun exposure (warmer seasons)
- + Heat retention (cooler seasons)
- Energy cost
- Maintenance cost
- + Water quality
- Stormwater runoff/overflow
- + Air quality
- Heat island effect
- + Habitat



Impacts of Extreme Temperatures

- > Most heat-related illness and death occurs indoors.
- > By 2050, the total heat-related deaths in NYC are projected to be between 204 and 268 per year.
- > This could have an annual economic impact of between \$1.51 to \$1.98 billion in NYC alone.

Passive Survivability

Passive Survivability calls for design to allow continued livability without power, fuel, and/or water for an extended period of time.

Cooling Load:

- Orient buildings on EW axis
- Minimize windows on E and W sides
- Use reflective roofs
- Incorporate built and vegetative shading techniques

Maintain Temperature:

- Ensure well sealed and highly insulated envelopes
- Incorporate thermal mass

Ventilation:

- Incorporate passive ventilation without fans or with fans powered by solar energy or batteries
- Include operable windows
- Include solar chimneys

Lighting:

- Incorporate daylighting strategies: skylights, clerestory windows
- Ensure proper glazing: high visual light transmittance, low SHGC

Food:

- Store food that doesn't require cooking
- Store stoves and fuel

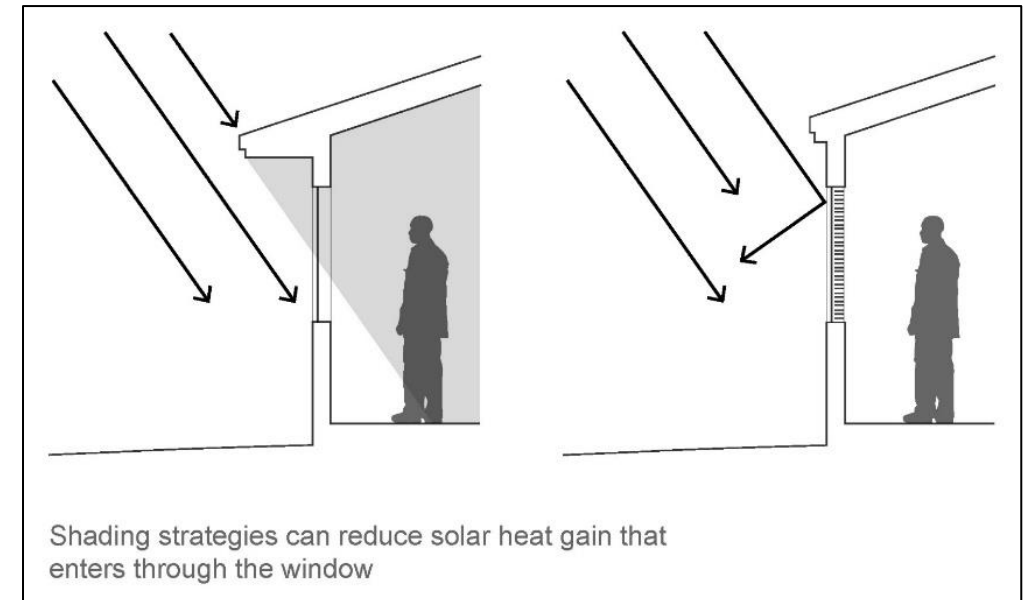
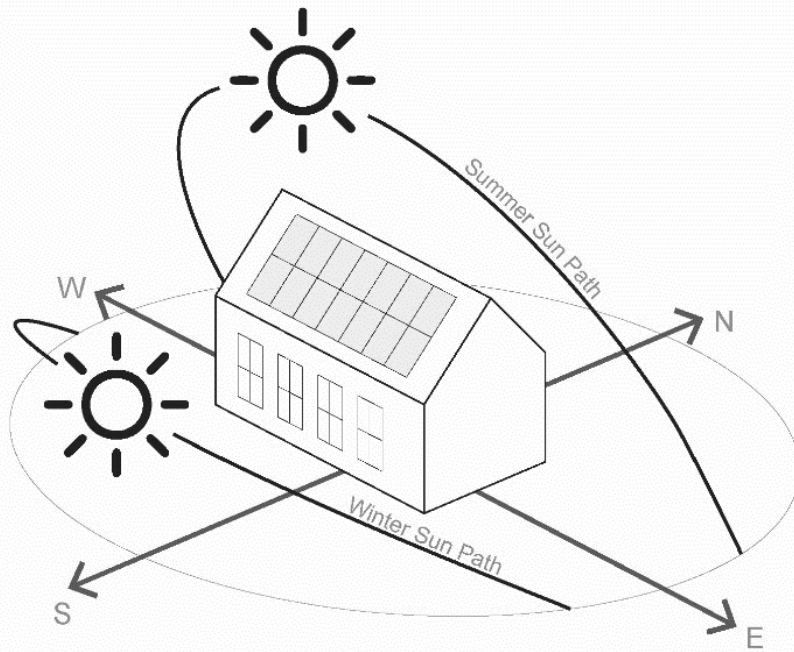
Water:

- Store drinking water
- Collect/store rainwater (non-potable uses)
- Use low-flow or composting toilets
- Use low-flow showerheads



Passive Strategy Examples

The sun can be harnessed for passive or active systems, such as heating or daylighting.



Take Lifespan into Account

- > Orientation of the Building (50+ years)
- > Foundation (50+ years)
- > Walls and Floors (50+ years)
- > Envelope (insulation, façade, etc.) (50+ years)
- > Ductwork and Piping (50 years)
- > Roofing (10 to 40 years)
- > Windows and Doors (10 to 30 years)
- > Interior Finishes (5 to 20 years)
- > Mechanical and Electrical Equipment (5 to 20 years)
- > Appliances (5 to 10 years)

Key Takeaways

- > Energy conservation measures and adaptation to climate change can be complementary strategies
- > Building improvements should explore passive survivability measures; ensuring natural ventilation potential is critical for heat waves.
- > Building adaptation measures should account for the expected life of the system

Learn more at: <http://ap.buffalo.edu/adapting-buildings>

Rajkovich, Nicholas B., Michael E. Tuzzo, Nathaniel Heckman, Krista Macy, Elizabeth Gilman, Martha Bohm, and Harlee-Rae Tanner. 2018. ***Climate Resilience Strategies for Buildings in New York State***. New York State Energy Research and Development Authority (NYSERDA), Albany, New York.

Summary/Q&A

Work Plan Updates and Schedule for 2021

December Schedule

- > Subgroups:
 - Week of December 9: staff cleans up policy options document and performs gap analysis
 - Week of December 14: continue discussion of how survey input, roundtables, and policy examples inform the work
 - *Holiday break last two weeks of December*
 - Week of January 4: Reconvene to tee up process to assess and prioritize policy options
- > Climate Justice Working Group
 - Meeting on December 16 with delegations from Advisory Panels
 - EE&H delegation: RuthAnne, Sadie, Jamal, Bill, Janet
- > Climate Action Council Meeting: December 15 at 2pm to 5pm
 - For awareness; option to attend or to watch the recording via <https://climate.ny.gov/>



Overview of January through March 2021

	Jan. 2021	Feb. 2021	Mar. 2021
Milestones	Prioritize strategies and policy options under consideration (through Q1 2021)	Public forum on strategies and policy options under consideration	Recommendations to CAC
EE&H Panel Meeting(s)– Anticipated Areas of Focus	<ul style="list-style-type: none"> • Consultant presentation on initial impact and cost analysis for regulatory policy options • Joint subgroup working session to advance policy assessment based on criteria: GHG impact, knowable costs, benefits/costs for building owners and users, impact to disadvantaged communities, workforce needs and impacts, implementation factors 	<ul style="list-style-type: none"> • Digest insights from public input session • Continue policy assessment and prioritization • Topical discussion: HFCs 	<p>Two panel meetings:</p> <ul style="list-style-type: none"> • Finalize recommendations to CAC
Cross-panel collaboration	Collaborate and seek input on priority policies/strategies under consideration		

Wrap Up and Reminders

- > Subgroups will meet week of December 14, no meetings last 2 weeks of December
- > Staff will be sending out calendar holds for upcoming meetings through March 2021

