

Using Model Local Laws to Increase Resilience

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Integrating Resilience Into Land Use Planning

- Risks from climate change
 - Storm surge
 - Flooding
 - Community services cut off
 - Vulnerable populations
 - Long-term economic impacts



Town of Stony Point, Hudson River, Hurricane Sandy 2012

Integrating Resilience Into Land Use Planning

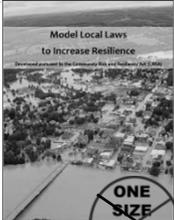
- Resilience - the ability of a system to withstand shocks and stresses while still maintaining its essential functions
- Proactive planning – Establish:
 - Community vision and goals for sustainable growth
 - Framework for enacting local law modifications
- Build on or update existing plans:
 - Comprehensive Plan
 - Hazard Mitigation Plan
 - Local Waterfront Revitalization Program
 - NY Rising Community Reconstruction Plan



Model Local Law Approach – New Tools

Approach Recognizes:

- Risks, challenges, & landscapes vary
- Regulatory culture differs
- Administrative capacity varies



Anticipated Uses:

- Spark discussion
- Inspire solutions
- Adapt for local use
 - Plug in amounts
 - Align definitions
 - Supply section #s

CHAPTERS

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

Assessing What Local Laws Are Needed



Community Resilience: Implementation and Strategic Enhancements (C-RISE) Local Assessment Tool

Can help local government:

- Consider the hazards it faces
- Assess and refine laws and policies to:
 - Improve resilience
 - Help achieve desired community outcomes

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

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Assessment Tool Framework

Resilience Goals	Provided for Each Goal
<ol style="list-style-type: none"> 1. Assess risk 2. Avoid risk 3. Reduce risk 4. Develop safely 5. Manage stormwater 6. Build capacity 7. Build support 	<ul style="list-style-type: none"> • Practical applications • Understanding key challenges • Inventory of local programs, policies, & codes with sample strategies listed • Targeted resources

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1. Know and Understand Hazards and Their Effects

Resilience Goal: Ensure comprehensive understanding of known hazards and their potential effects (physical, economic, social)

Example Checklist Questions:

- ✓ Hazard mitigation/resilience in comprehensive plan?
- ✓ Part of county/regional hazard mitigation plan?
- ✓ Location of socially vulnerable populations identified in plan?
- ✓ Flood maps consider historical & projected flood lines?
- ✓ Coastal setbacks reflect erosion rates known from studies?

Key Challenge: What were the primary physical, economic, and social impacts of recent hazard events?

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DOS OPD Risk Assessment Spreadsheet and Maps

Available at:
<http://opdgig.dos.ny.gov/#/focus/resilience>

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NYSDEC photo

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DOS MODEL LOCAL LAWS TO ASSESS RISK	SECTION
Coastal erosion-based setback	3.2
Special Use Permit Alternatives Analysis	3.4.1
Shoreline reach analysis to designate overlay zones	3.4.2

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Shoreline Reach Analysis

- Study shoreline characteristics
- Establish overlay zones
- Use to guide shoreline management decisions
 - No erosion control structures
 - Permit required to alter existing structures
 - Limited repair of existing structures



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2. Avoid Risk

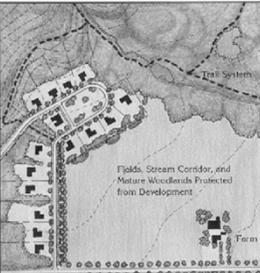
Resilience Goal: Conserve land in critical coastal areas, river corridors, and other flood-prone environments

Example Checklist Questions:

- ✓ Important natural resource areas identified?
- ✓ Plan exists for acquiring priority open space/critical areas? Incentives provided to preserve open land (e.g., PDR?)
- ✓ Tree canopy goal established & street trees considered critical?

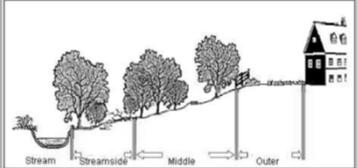
Key Challenge:
Are there key partners you need to help you conserve open space and natural areas?

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Fall 2019		DOS MODEL LOCAL LAWS TO AVOID RISK	SECTION
 <p>Example Cluster Development Randall Arendt</p>	Lot yield calculations	1.5.5	
	Tree & vegetation clearing restrictions	1.5.4	
	Cluster, open space & conservation development	1.5.6	
	Watercourse setbacks & buffers	2.2.1	
	Flood elevation requirements for areas behind levees or below high hazard dams	4.3.7	
	Shoreline Protection Outside	3.1.3	

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Watercourse Setbacks & Buffers



Three-zone stream buffer system (Source: Adapted from Schueler, 1995)

Maintain stream protection buffer to decrease erosion, reduce flood risk, improve water quality, provide wildlife habitat

- Prevent building too close to streams and waterbodies
- Require larger setbacks in environmentally sensitive areas or areas of higher risk

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3. Reduce Risk

Resilience Goal: Reduce risk to people, buildings, and facilities in vulnerable areas

Example Checklist Questions:

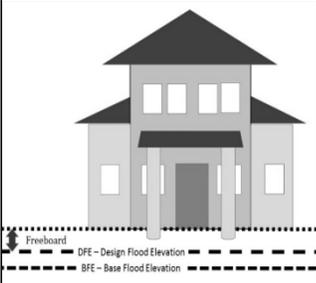
- ✓ Public educated about the risks of developing in environmentally sensitive areas?
- ✓ Participation in the NFIP Community Rating System (CRS)?
- ✓ Alternative parking requirements encourage efficient land use and preservation of trees?

Key Challenge:

Are there specific challenges you've faced in reducing risk to people, buildings, and facilities in vulnerable areas?

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Fall 2019		DOS MODEL LOCAL LAWS TO REDUCE RISK	SECTION
 <p>Town of Dover, Tenmile River floodplain An Office of the New York Department of State</p>	DEC flood damage prevention law	4.3	
	Waterfront bluff overlay district	1.1.3	
	Establish design flood elevation to capture lands outside of floodplains	4.3.2	
	Sale of land in regulated floodplain must disclose environmental constraints	1.5.7	
	Require dry land access to new buildings	4.3.8	

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<h3>Replace BFE with Design Flood Elevation (DFE)</h3>		
	<ul style="list-style-type: none"> • Current freeboard (2 ft.) based on BFE (100 yr FP) • DFE can be <u>higher</u> than BFE 	
	<p>Examples of basis for DFE:</p> <ul style="list-style-type: none"> • 500-yr flood elevation • Extra height added to BFE • Historical deficiencies • Climate-informed science (ex. future conditions hydrology) 	

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<h3>4. Develop Safely</h3>		
<p>Resilience Goal: Plan for and encourage development in safer areas</p>		<p>Key Challenge: Is encouraging development in safer areas a priority for your community?</p>
<p>Example Checklist Questions:</p> <ul style="list-style-type: none"> ✓ Safe areas designated as targeted growth areas? ✓ Hazard info incorporated into capital improvement plans? ✓ Infrastructure investments prioritized in safer growth areas? ✓ Community has planned for managed retreat? ✓ Incentives provided for development in safer growth areas? 		
		<p>Office of Planning and Development</p>

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Town of Saugerties

Zoning District Overlays

Legend

- Roads
- Streams
- Floodplains
- Flood Hazard Overlay
- Flood Hazard Overlay Zone

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DOS MODEL LOCAL LAWS TO DEVELOP SAFELY	SECTION
Prohibit new critical facilities in flood zones	4.3.6
Steep slope protection overlay district	5.1.3
Non-conversion agreements: areas under elevated buildings	1.4.4.2
Safe building envelopes in new subdivision lots	1.5.2
Compensatory storage	4.3.3

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Compensatory Storage in Special Flood Hazard Area

Source: City of Lincoln (NE)

- Add to DEC Flood Damage Prevention Law
- Goal: offset floodwater storage volume lost due to filling
- Provide equal volume of flood storage by excavation or other measures at or adjacent to the development site
- Avoids increase in flood elevations upstream or downstream

- May also prohibit encroachments within floodway unless technical evaluation shows it won't increase flood levels

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5. Manage Stormwater

Resilience Goal: Implement comprehensive stormwater management techniques

Example Checklist Questions:

- ✓ Comprehensive plan goals encourage green infrastructure (GI) in new development?
- ✓ A watershed management plan for stream restoration or protection has been adopted ?

Key Challenge: Do your community's codes and ordinances provide for the protection of natural features with stormwater management benefits?

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Fall 2019	DOS MODEL LOCAL LAWS TO MANAGE STORMWATER	SECTION
	Drainage improvements in a subdivision	1.5.3
	Submission and approval of stormwater site design plans	5.4
	Maximum lot coverage	1.2.3
	Prohibit encroachments on drainage ways (e.g. fences)	1.6.2
	Steep slope and erosion control performance standards	5.1.2
	Establish a stormwater utility program to fund stormwater management	5.5
	Condition new construction on mitigation of amount of excessive of impermeable surfaces	1.3.2
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<p>Mitigation of excessive impermeable surfaces</p> <ul style="list-style-type: none"> • Establish maximum % impermeable surface per lot • Condition redevelopment of legal nonconforming lots or structures on reduction of impermeable surface coverage <p>Town of Skaneateles – requirements by district:</p> <ul style="list-style-type: none"> • <u>Minimum</u> open space 30% - 80% • <u>Maximum</u> impervious surface 10% - 60% • Watershed Overlay District – max. impervious surface 10% (nonconforming structures special consideration) • Off-site mitigation allowed by dedication of land or \$\$ contribution to a fund 	
	

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<p>6. Build Capacity</p> <p>Resilience Goal: Improve the community capacity needed to enhance resilience</p>	
<p>Example Checklist Questions:</p> <ul style="list-style-type: none"> ✓ Certified Floodplain Manager (CFM) is on staff? ✓ Staff trained in long term flood resilience planning and/or implementation? ✓ Local planner or zoning administrator is involved in developing/updating the local hazard mitigation plan? ✓ Local businesses provided help to evaluate their exposure to natural events and take steps to reduce exposure? 	<p>Key Challenge: Does your community have a post-disaster recovery plan?</p>
 Office of Planning and Development	

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DOS MODEL LOCAL LAWS TO BUILD CAPACITY	SECTION		
Beach erosion control districts	3.5	Town of Southampton <i>Bridgehampton & Sagaponack Erosion Control Districts Map</i>	
Stormwater utility	5.5		
County administration of flood damage prevention law	4.3.1		
Phased reconstruction moratorium to address post-disaster situations	1.4.5		

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Phased Reconstruction Moratorium			
<ul style="list-style-type: none"> Proactively sets priorities for Building Department services post-disaster <ul style="list-style-type: none"> Building Permits & Inspections Processing of land use applications (beware default approvals) Adopt now, activated by events later <ul style="list-style-type: none"> Disaster declaration Number of structures damaged 	 <p>Breezy Point, Hurricane Sandy</p> <p><small>NEW YORK STATE</small> Office of Planning and Development</p>		

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7. Build Support			
<p>Resilience Goal: Build support for improving community resilience and remove barriers to implementation</p> <p>Example Checklist Questions:</p> <ul style="list-style-type: none"> Public regularly informed about community resilience efforts? Multilingual outreach provided if needed? Up-to-date inventory of non-conforming structures located in the regulatory floodplain exists? 		<p>Key Challenge: Are there political impediments or community objections to resilience-building efforts in your community?</p>	
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<p>Fall 2019</p> 	<p>DOS MODEL LOCAL LAWS TO BUILD SUPPORT</p>	<p>SECTION</p>
	<p>Allow increased maximum building height</p>	<p>1.2.2</p>
	<p>Allow temporary emergency dwelling permits</p>	<p>1.4.1</p>
	<p>Temporary mobile office units</p>	<p>1.4.3</p>
	<p>Design requirements for elevated buildings</p>	<p>1.4.4.1</p>

<p>Elevated Buildings Provisions</p> <ul style="list-style-type: none"> • 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 variances), grant them Legal Non-Complying Status to allow future additions • Require visual mitigation involving porches, stairs, raised front yards, or landscaping • Require Non-Conversion Agreements 	<p>29</p>  <p>Source: Larry Moss</p>
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<p>Fall 2019</p> <p>REMINDER</p>	<p>Not all Solutions Require Local Laws</p> <ul style="list-style-type: none"> • Acquisition of property • Local home elevation programs • Participation in NFIP Community Rating System (CRS) • Use of green infrastructure • Public education 	<p>30</p>  <p>Vegetated swale at the Village of Greenwood Lake in Orange County.</p>
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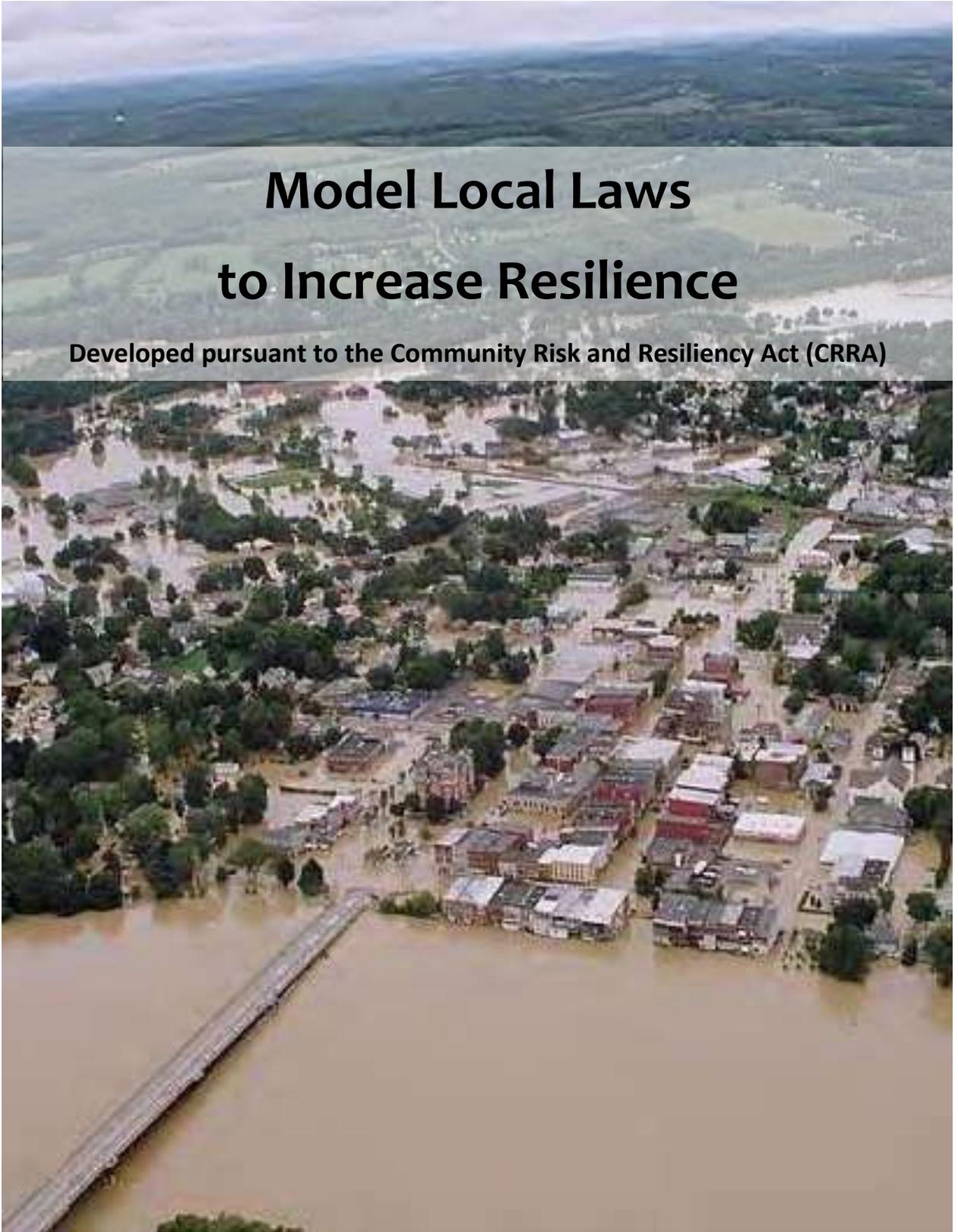
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Model Local Laws to Increase Resilience

Developed pursuant to the Community Risk and Resiliency Act (CRRA)

Rossana Rosado, Secretary of State

Andrew M. Cuomo, Governor



Department
of State



New York State Department of State

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(Not yet available)

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How to use the Model Local Laws

Model local laws should be viewed as examples to help local government officials interested in addressing resiliency issues in their municipal code. The model local laws have been compiled for information purposes and are not intended to be viewed as the only way to address resiliency to climate change and extreme-weather events. Models were developed from a variety of sources, including existing models, existing local laws, and a combination of sections from various laws assembled with professional expertise. Where existing laws have been adapted, that is noted, and endnotes provide links to the laws so they may be seen in context. A range of regulatory choices are provided, with some models consisting of simple changes to enhance resiliency aspects of typical local laws, and others that would constitute a comprehensive approach to a topic that may require more advanced administrative skills to be effective.

Readers are responsible for making their own assessments of the appropriateness of a model for their community, and how that model will be incorporated into their municipal code. These models are not intended to be adopted by a municipality verbatim, instead model local laws should be treated as a starting point for local law provisions that are molded to fit into an existing scheme of land use laws in your community. Local government officials that are considering the adoption of any of these models should seek the advice of their municipal attorney.

Most models are written as the language would appear in a municipal code book, without the trappings of a fully drafted local law. A municipal attorney should be consulted to properly frame the laws with the necessary language for the proper insertion into the municipal code either through amendments, deletions, and/or additions. Additionally, the municipal attorney will need to include an enacting clause, severability clause, and effective date, as well as ensure the municipality follows the proper procedure for adopting the local laws. For more information, refer to the Department of State publication, [Adopting Local Laws in New York State](#).

As most models could be adopted by either a city, town, or village, there is often a choice that is presented in brackets and italicized text [*e.g., city/town/village*]. There may also be blanks to be completed, such as by inserting the name of the local government or of a zoning district. There are other choices to be made, such as who is granted the authority to act (e.g., planning board or zoning board) and the extent to which the local government wishes to regulate something (e.g., setbacks of 50 feet or 100 feet).

To help guide communities in their choices, local law topics are introduced with a brief narrative, and resources that expand upon the topic are provided both in the narrative and in the endnotes. There are also text boxes that expand upon topics in the narrative or in the model local law itself.