

**NYSDEC Optional Additional Language  
Model Local Law for Flood Damage Prevention  
Optional Additional Language**

**General Comments.**

The Model Local Law for Flood Damage Prevention contains language that complies with the floodplain management requirements of the National Flood Insurance Program (NFIP) contained in federal regulations 44 CFR 60.3 through 44 CFR 60.6. These requirements are minimum requirements for participation in the NFIP. The Federal Emergency Management Agency (FEMA) has calculated that buildings built to these standards suffer 70% less flood related damage than unprotected buildings. However, they can still suffer damage, so higher protection levels are warranted in most instances. For example, floods can be higher than the base flood elevation for various reasons, including larger storms, downstream obstructions, increased watershed development and floodplain filling. Setting higher standards protects against these risks.

Many of the following techniques result in lower flood insurance premiums either directly or through the Community Rating System (CRS). The CRS is a FEMA program that provides discounts for communities that take measures that are beyond the minimum requirements of the NFIP. CRS certification requires a community to accumulate at least 500 points. Flood insurance policies within communities with over 500 CRS points receive a five percent discount on each individual insurance premium. Flood insurance policies within flood hazard areas in CRS communities receive an additional five percent discount for each additional 500 points. Contact NYS DEC or visit the CRS Resource Center at <http://training.fema.gov/emiweb/crs/> for more information about the Community Rating System.

The following pages contain ideas for options to decrease your community's flood risk. These are all optional. Each page contains an explanation of the measure and language that may be used. Should your community decide to utilize any of these measures, please make sure that any changes are brought to the attention of NYSDEC so that we may review the final language and assure that it is compliant with FEMA's regulations.

For more information about techniques to reduce flood risk in your community, see the publication "No Adverse Impact: A Toolkit for Common Sense Floodplain Management" by the Association of State Floodplain Managers (ASFPM). The Toolkit may be viewed at [http://www.floods.org/NoAdverseImpact/NAI\\_Toolkit\\_2003.pdf](http://www.floods.org/NoAdverseImpact/NAI_Toolkit_2003.pdf) or ordered directly from ASFPM by calling 608-274-0123. Questions about these materials may be addressed to the NYS DEC Floodplain Management Section at 518-402-8185 or [wsnecham@gw.dec.state.ny.us](mailto:wsnecham@gw.dec.state.ny.us).

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**Compensatory Storage.**

Explanation: Riverine floodplains and coastal floodplains inland from the “V” wave runup zone are either approximate “A” zones, which have not had detailed engineering analyses or flood elevations, or detailed “AE” zones or “A” zones with a number attached, that have detailed flood elevation studies. In Riverine floodplains with detailed studies, there is usually also a floodway analysis. Development is excluded from the floodway unless an engineering analysis determines that the development results in no measurable increase in the Base Flood Elevation (elevation of the 100-year flood). However, development, including fill, is allowed in “A” zones outside of floodways.

Flood Insurance Studies assume that when the entire Riverine floodplain is filled outside of the floodway, an increase of up to one foot in the Base Flood Elevation will occur at the location of the encroachment. Some communities may wish to avoid that potential increase, and to also make certain that an encroachment does not result in increased flood elevations upstream or downstream of the development, by requiring developments that encroach into the floodplain to provide compensatory flood storage.

The following language may be used for that purpose. Enforcement of the following policy could result in up to 70 credits towards flood insurance discounts in communities that participate in FEMA’s Community Rating System (CRS).

To provide compensatory storage for any encroachment within a flood hazard area, add the following language to your Local Law for Flood Damage Prevention. Note that your community’s section numbering may be different. Contact NYS DEC for assistance.

Add a new Part (3) to Section 5.1-2: “Encroachments”.

*Whenever any portion of a floodplain is authorized for development, the volume of space occupied by the authorized fill or structure below the base flood elevation shall be compensated for and balanced by a hydraulically equivalent volume of excavation taken from below the base flood elevation at or adjacent to the development site. All such excavations shall be constructed to drain freely to the watercourse. No area below the waterline of a pond or other body of water can be credited as a compensating excavation.*

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**Repetitive Damage.**

Explanation: FEMA’s Increased Cost of Compliance (ICC) flood insurance coverage provides up to \$30,000 towards elevating, floodproofing, demolishing or relocating a structure that has been substantially damaged or repetitively damaged. However, that coverage is only available to a repetitively damaged structure within a community that has adopted an ICC definition in its local law. Should your community wish to add a repetitive damage clause, a change must be made in the “Substantial Damage” definition.

Should you wish to include the definition, an insured structure which has been damaged twice within a ten year period for which the average damage equals or exceeds 25% of the market value of the structure would qualify for up to \$30,000 towards elevating, floodproofing, demolishing or relocating the structure. Even without the repetitive damage clause, an insured structure that has been substantially damaged in a single flood event will qualify for this Aincreased cost of compliance@ coverage.

Note that the \$30,000 in additional insurance coverage is available only up to the total limit of coverage under the National Flood Insurance Program. That limit is \$250,000 for a residential structure and \$500,000 for a non-residential structure. The total insurance claim plus the ICC claim may not exceed the above limits.

Should you decide to include a repetitive damage clause, the municipality will be responsible for keeping track of all flood related structural damages. Also, the requirement to bring a repetitively damaged structure up to the flood code would hold whether or not the property owner carries a flood insurance policy. This would apply to a building whether or not there has been a change in ownership of the building. Should you have questions about this requirement, please contact NYSDEC.

To add the definition, replace the definition on Page 6 of the model local law with the following language:

***Substantial Damage** means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. Substantial damage also means flood-related damages sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.*

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**Cumulative Substantial Improvement.**

Explanation. The NFIP allows improvements valued at up to 50% of the building's pre-improvement value to be permitted without meeting the flood protection requirements. Over the years, a community may issue a succession of permits for different repairs or improvements to the same structures. This can greatly increase the overall flood damage potential for the structure and within a community. The community may wish to define "substantial improvement" cumulatively so that once a threshold of improvement within a certain length of time is reached, the structure is considered to be substantially improved and must meet flood protection requirements.

Enforcement of the following policy could result in up to 110 credits towards flood insurance discounts in communities that participate in FEMA's Community Rating System (CRS).

To add the requirement, replace the definition of "Substantial improvement on Page 6 of the model law with the following language:

*"Substantial improvement" means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. Substantial improvement also means "cumulative substantial improvement." The term includes structures which have incurred "substantial damage", regardless of the actual repair work performed. The term does not, however, include either:*

- (1) any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or*
- (2) any alteration of a "Historic structure", provided that the alteration will not preclude the structure's continued designation as a "Historic structure".*

In addition, there must be a definition for "Cumulative Substantial Improvement" as follows:

*"Cumulative Substantial Improvement" means any reconstruction, rehabilitation, addition, or other improvement of a structure that equals or exceeds 50 percent of the market value of the structure at the time of the improvement or repair when counted cumulatively for 10 years.*

The community may wish to decrease the 50-percent threshold to a lower number, or change the ten-year tracking period. An alternative approach would be to remove the "cumulative substantial improvement" language and instead decrease the 50-percent improvement threshold.

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**Critical Facilities.**

Explanation: Certain special hazard or otherwise critical facilities should not be located within a flood prone area due to the serious danger to life and health and widespread social or economic dislocation that would result when the facility is subjected to flooding. Such facilities either have the potential to create significant environmental or health risk, or are needed for community support services during a disaster.

Requiring protection for critical facilities serves several purposes: it reduces threats to life and health; it reduces damage to vital public facilities; it reduces pollution of floodwaters by hazardous materials; and it ensures that the facilities will be operable during most flood emergencies.

The Community Rating System (CRS) provides 100 points to communities that prohibit critical facilities within the 500-year floodplain.

To add the requirement, add a definition of “Critical Facilities” to page 3 of the Model Local Law as follows:

***Critical facilities means:***

- (1) Structures or facilities that produce, use, or store highly volatile, flammable, explosive, toxic and/or water-reactive materials;*
- (2) Hospitals, nursing homes, and housing likely to contain occupants who may not be sufficiently mobile to avoid death or injury during a flood;*
- (3) Police stations, fire stations, vehicle and equipment storage facilities, and emergency operations centers that are needed for flood response activities before, during, and after a flood; and*
- (4) Public and private utility facilities that are vital to maintaining or restoring normal services to flooded areas before, during, and after a flood.*

Add a new Section 5.6 as follows:

**5.6 Critical Facilities**

*In order to prevent potential flood damage to certain facilities that would result in serious danger to life and health, or widespread social or economic dislocation, no new critical facility shall be located within any Area of Special Flood Hazard, or within any 500-year flood zone shown as a B zone or a Shaded X zone on the Community’s Flood Insurance Rate Maps.*

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**Areas Behind Levees or below High Hazard Dams.**

Explanation: Areas that are protected by levees that provide at least three feet of protection above the 100-year flood are usually not mapped as floodprone on FIRM's. Such levees can fail or overtop. There are also many areas that would be inundated by floodwaters should an upstream dam fail or overtop. While the probability of levee or dam failure is low in most areas, the consequences of such failure are large.

In the case of levees, a community may wish to apply flood elevation requirements to the levee protected area as though the levee was not there. In the case of a dam, the community may have access to an inundation map in the event of a dam failure.

For a community to apply flood protection development standards to areas below dams or behind levees, it must first have a map of the affected area. This process will become easier as FEMA's Map Modernization program provides more communities with digital Flood Insurance Rate Maps. To include these areas, the definition of "Area of special flood hazard" definition would have to be amended to include areas that the community has identified as part of map of levee protected areas and/or dam failure inundation zones. In addition, Section 3.2, which adopts the Flood Insurance Rate Map and Flood Insurance Study for the community, would have to be amended to include the appropriate maps.