

Suffolk County Planning Commission Guidebook

Adopted 8/4/21 ZSR-21-23

New Section: 4.10 Site Specific Policies for Climate Change

4.10 Site Specific Policies for Climate Change

General Policy Goal: *Developing or redeveloping commercial and residential areas to be able to withstand the effects of climate changes that are occurring now and in the future; to enhance any appropriate development of land in a way that promotes health and safety and avoids repetitive economic loss to property and puts people's lives into impending harm. According to the Environmental and Energy Study institute (EESI), climate change is "a rise in the average global temperature due to an increase in the concentration of atmospheric greenhouse gases, resulting in numerous climatic shifts and impacts around the globe." Rising Sea level, more frequent coastal flooding, including sunny day flooding, increased coastal erosion, drought and wildfires, more frequent hurricanes and extreme rain events with local street flooding, severe winter storms, surface water eutrophication, harmful algae blooms and ocean acidification are some climate issues presenting itself on Long Island.*

A. General Policies for Resiliency of Development and Preparation Against the Effect of Climate Change:

- All new and reconstructed residential, commercial and industrial buildings should be designed and constructed to reduce energy consumption, improve environmental quality, and increase the ability of our infrastructure to withstand the impacts of flooding.¹*
- All non-water dependent or related residential, commercial and industrial buildings should be located out of documented flood zones²*
- Encourage the investment in stronger structural materials for homes, office buildings and commercial buildings. Material should be strong enough to withstand potential damages from flying debris, not be severely ruined by fires, and being able to withstand a large coat of wet heavy snow³ (as stated again in Section F). Structures should be built to withstand floods and meet current flood zone standards and be approved by the State Building Code and the Home Renovation Research Lab which has been designated by HUD to develop guidelines for resilient structures.*
- Encourage and incentivize public transit systems, bicycles and pedestrian transport, and employee commute options.⁴*

B. Specific Flood Zone Policies:*

- Flood zones are not compatible with development because they are an unsafe place for people and property to be located. Modifications to critical natural processes are often needed to make flood zones compatible with development, which causes ecological damage. The cumulative result of unlimited modification across the entire flood zone leads to environmental*

¹ ES-2 NYS Climate Action Plan Interim Report

² ES-5 NYS Climate Action Plan Interim Report

³ 6-16, NYS Climate Action Council Interim Report

⁴ 7-26, NYS Climate Action Council Interim Report

*damage. Therefore, a regional view is required to ensure that such modifications are made only where truly necessary and the needs of both people and nature are balanced.*⁵

- *Regional planning should seek to minimize the extent of hardening on the shoreline, and all projects should implement the lowest impact solution possible.*⁶
- *There should be no new development in the flood zone wherever possible. Site plans should strive to keep infrastructure concentrated on the highest elevations of the site.*⁷ *Development in a flood prone area should be required to meet various infrastructure designs such as permeable pavements, rainwater harvesting, downspout redirection, rain gardens, bio-swales, natural vegetation and other measures.*
- *Where development already exists in the flood zone, redevelopment planning should consider whether the development can be moved to a less vulnerable location. Buy-out programs are designed to facilitate this process while protecting the landowner's investments. Owners should be encouraged to accept buy-outs whenever they are available.*⁸
- *Only in cases where the above conditions cannot be met, should development proceed. Where it does, the following hierarchy should be followed.*⁹
 - *Incorporate passive risk reduction: structures should be designed and renovated to accommodate frequent inundation (for example houses should be raised). Shoreline development must leave a buffer of natural vegetation that allows for erosion and sediment transport to proceed naturally.*¹⁰
 - *Where passive risk reduction is insufficient, active risk reduction can be added (for example deployable flood walls) during flooding events.*¹¹
 - *Should the aforementioned measures prove infeasible, engineered structures that interrupt the natural water flow and or sediment movement should be designed to emulate appropriate natural features (e.g. "living shoreline" structures that incorporate shellfish reefs or wetlands*¹²
 - *When all these means prove untenable should existing developments be armored engineered hard structures.*¹³
- *Regional planning should seek to minimize hardening on the shoreline, and all projects should implement the lowest impact solution possible.*¹⁴
- *No new detached residential dwellings or multi-unit residential buildings should be located in a 100-500 year flood zone.*¹⁵ (See GIS link below)
<https://gis.suffolkcountyny.gov/portal/apps/webappviewer/index.html?id=3335037e07594e8aa4462e2978959ba6>
- *No new non-water dependent or non- water related commercial or industrial establishments should be located in a 100-500 year flood zone.*¹⁶

⁵ 11-21 NYS Climate Action Council Interim Report

⁶ 11-21 NYS Climate Action Council Interim Report

⁷ 11-21 NYS Climate Action Council Interim Report

⁸ 11-84 NYS Climate Action Council Interim Report

⁹ 11-23, NYS Climate Action Council Interim Report

¹⁰ Model Local Laws to Increase Resiliency NYS DEPT Of State

¹¹ Suffolk County Climate Action Plan

¹² Model Local Laws to Increase Resiliency

¹³ Suffolk County Climate Action Plan

¹⁴ SCPC Draft Norfolk, VA

¹⁵ 6-16 NYS Climate Action Council Interim Report

¹⁶ NYC Climate Resiliency Design Guidelines

- *Existing structures in flood zones should be raised to be no less than 5 feet above the base flood elevation.¹⁷*
- *Shoreline hardening should be avoided wherever possible to allow natural sediment transport processes to occur.¹⁸*
- *New and reconstructed areas need an operational plan to keep catch basins and stormwater grates clear and functioning.¹⁹ Infrastructure should promote drainage from floods.*
- *Floodplains and wetlands shall be preserved in their natural state to the maximum possible extent practicable to protect water retention, overflow and other natural functions.²⁰*
- *Promote the usage of green methodologies such as rain gardens, permeable pavements and bio-swales to control storm water runoff that exacerbates flooding.²¹*

C. Specific Greenhouse Gas Reduction Policies:

- *All new development with parking lots should have plans for (2%) of off street parking stalls to become future electric vehicle charging stations.²²*
- *All new multi-family dwellings with parking lots must have proposed plans for (10%) of parking spaces to become future electric vehicle charging stations.²³ (CA)*
- *All new development with parking lots should designate a minimum (8%) of parking spaces for clean energy vehicles,²⁴ but should not increase the number of parking spaces beyond the minimum required in order to provide such designations.*
- *All parking lots should meet the requirements above and allow car sharing companies to have designated space for passenger loading zones.²⁵*
- *On-site pedestrian walkways should be provided to abutting roadways to enhance accessibility to nearby public transportation services²⁶*
- *Facilities should be added to local bus stops that includes storage for bikes and scooters.²⁷*
- *Moderate and higher density residential developments should generally be located in close proximity to public transit. It is recommended that such development be sited ¼ mile of Suffolk County Transit bus stops or a Long Island Rail Road (LIRR) station.²⁸*
- *Promote connectivity between developments in order to improve pedestrian access to public transportation sites.²⁹*
- *All development should consider turning driveways and roads from heat absorbers to reflectors such as cool roofs and cool paving surfaces,³⁰ or incorporate permeable pavements.*
- *Parking Stall Demand Reduction, to lessen parked and idling cars, decrease trip generation and avoid unnecessary disturbance to CO2 absorbing vegetation, should be employed.*

¹⁷ 6-16 NYS Climate Action Council Interim Report

¹⁸ 11-82 NYS Climate Action Council Interim Report

¹⁹ 11-70 NYS Climate Action Council Interim Report

²⁰ 11-74 NYS Climate Action Council Interim Report

²¹ See Suffolk County Planning Commission website

²² Chap. 14-16 NYS Climate Action Council Interim Report

²³ <https://www.green-technology.org/gcsummit18/images/CALGreen-Residential.pdf>

²⁴ 6-32 NYS Climate Action Council Interim Report

²⁵ 6.8 pg. 1 Climate Smart Communities

²⁶ 7-26 NYS Climate Action Council Interim Report

²⁷ 41, The Energy to Lead, 2015 NYS Energy Plan

²⁸ 11-73 , NYS Climate Action Council Interim Report

²⁹ 7-26 , NYS Climate Action Council Interim Report

³⁰ 38, Suffolk County Climate Action Plan

D. Specific Renewable Energy & Energy Efficiency Policies: (see also section 4.3 of the SCPC Guidebook)

- *When planning the layout of a development, consideration should be given to providing solar access. This means, where possible, laying out buildings in an East/West direction so that south facing windows and solar collectors, whether to be installed immediately or planned for the future, can get direct sunlight.*³¹
- *New development should be required to install energy efficient appliances using the Energy Star label.*³²
- *Whenever possible all new residential, commercial and industrial buildings should include the use of renewable energy through the utilization of rooftop solar, wind, fuel cells and/or geothermal system and other energy storage devices.*³³

E. Specific Wildland-Urban Interface Policies: (Wildfires)

- *Clear-cutting of trees should be avoided whenever possible in order to preserve mature and healthy vegetation and lessen edge dieback and the creation of wildfire fuel. In addition, measures will be taken to protect and preserve as much mature vegetation as possible on the site, including but not limited to trees of six inches in diameter or more measured at 4 1/2 feet above grade.*³⁴
- *Fuel storage, including but not limited to propane tanks should not be allowed outdoors within range of flammable vegetation.*³⁵
- *Large scale development should incorporate alternate routes for first responders to get to an emergency and for residents to evacuate during an emergency.*³⁶
- *Development should have covenants and restrictions that prohibit the growth of drought-tolerant plants and growth of plants with high live fuel moisture and encourage plants that contain a large amount of water in comparison to their dry weight.*³⁷
- *Development in a wildfire prone area should be required to meet various infrastructure designs as developed by the International Code Council, International Wildland-Urban interface Code.*

F. Specific Extreme Wind, Snow and Heat Event Policies:

- *All new development should be encouraged to use stronger materials to structure homes, office buildings and commercial buildings. Material should be strong enough to withstand potential damages by flying debris, not be severely ruined by fires, and being able to withstand a large coat of wet heavy snow.*³⁸

³¹ 72, NYS Energy Code

³² NYS Climate Action Council Interim Report

³³ 34, Suffolk County Climate Action Plan

³⁴ July 16 Memo, Site Planning

³⁵ How to Prepare For a Wildfire

³⁶ 30, 2012 Wildland-Urban Interface Code

³⁷ 29, 2012 Wildland-Urban Interface Code

³⁸ 2012 Wildland-Urban Interface Code

- *Exterior building materials (i.e. roof shingles, siding, etc.) and other materials to decorate buildings should be affixed to the structure so as not to be dislodged during extreme wind events (hurricanes, tornados, etc.).*³⁹
- *Shade structures should be integrated into new developments via the use of car ports awnings, etc.*⁴⁰
- *Parking Stall Demand Reduction, to lessen the size of asphalt (black) parking lots to reduce heat absorption should be employed.*

**Note: It is the recommendation of the Climate Change Working Group Sub-Committee that referred projects to the Suffolk County Planning Commission that are located within the 100 – 500 year flood plain should be a Regionally Significant project pursuant to Section 1.3 of the Suffolk County Planning Commission Guidebook.*

³⁹ How to Prepare for a Winter Storm

⁴⁰ Climate Smart Communities