

# City of Beacon Climate Smart Planning

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Climate Smart Resiliency Planning Tool is a checklist to identify gaps in a community's planning process.

The Climate Smart Resiliency Planning Tool was used to evaluate opportunities for the City of Beacon to improve its community's resilience to flooding and climate change. The Planning Tool reviews many long- and short- term aspects of storm and climate change preparedness by reviewing City and County planning documents, activities and management. Documents were reviewed, and municipal staff members were consulted in the process of completing the assessment. The assessment and recommendations will be shared through discussions at the Community Resilience Building workshop in conjunction with the town of Fishkill.

Municipal staff engaged in the City Of Beacon Climate Smart Planning assessment:

Anthony Ruggiero, City Administrator  
Reuben Simmons Jr., Working Supervisor  
Tim Dexter, Building Inspector  
John Clarke, City Planner  
Brian DiFeo, Chair, CAC

The completed assessment and recommendations highlight areas of opportunity for the City of Beacon to integrate flood and climate change preparedness into its municipal operations and planning.

## Areas of Strength

- Beacon has made good progress on a Natural Resources Inventory that will be completed this year.
- The City has constructed a solar farm on Denning's Point Landfill to help increase energy resiliency.
- The City has completed the conversion to LED for all of its street lights and signals.
- The City has installed a Solar/Wind LED light at the New Highway Garage.
- The City has constructed a new \$10 million energy efficient Highway Garage.
- The Fishkill Creek Greenway & Heritage Trail is an important asset that encourages responsible use of and engagement with the natural, historical and cultural landscape. When created, factors such as the creek edge and floodplain, surface hydrology and

wetlands, steep slopes, and vegetation were considered. It is an integral part of a broader vision for open space within Beacon and the greater Hudson River valley.

- Approximately half of Beacon’s shoreline is undeveloped and maintained as parkland. The City has approximately 100 acres of its land designated as parkland.
- This year, the City completed the 2018 Comprehensive Water Supply Plan, which contains an extensive evaluation of the water supply, including an analysis of Beacon’s current and future water supply usage and needs.
- The City has completed and updated several other plans that support climate resiliency including the Comprehensive Plan.

## Areas of Opportunity

- Beacon has an active and motivated CAC that is interested in assisting with environmental projects, especially those related to the Climate Smart Communities certification. The city can take advantage of the CAC to propel CSC activities, including the recommendations that are in bold below.
- The City maintains an active and informative website. This website can be expanded to accommodate many of the recommendation listed in Section 3: Public Outreach and Engagement.
- The City’s 2018 Capital Plan commits over \$4.5 million to improve water and sewer infrastructure. The projects have the opportunity to have elements of climate resiliency built into them from the beginning stages.
- Beacon is also looking into creating an Open Space Index. The OSI could potentially create momentum for an Open Space Plan to be considered, and it could be incorporated as an integral part of the plan as well.
- The city has also applied to receive funding through the DEC’s Urban and Communities Forestry Grants.
- The City can leverage completion of this Climate Smart Resiliency Planning Tool for points toward Climate Smart Communities certification. **CSC PE7 Action: Climate Smart Resiliency Planning (6 pts.)**. For more information on the Climate Smart Communities Certification Program and the actions listed in this document, visit the Climate Smart Communities portal: <https://climatesmart.ny.gov/>.

## Recommendations

The following opportunities emerged under each of the sections of the Climate Smart Planning assessment:

### Section 2- Vulnerability and Risk Assessment

- When the Hazard Mitigation Plan is next updated in 2021, consider expanding beyond just mitigation strategies to also include climate adaptation strategies. This

could also potentially be included in the vulnerability assessment: **CSC PE7 Action: Climate Adaptation Strategies (2-8 pts.)**

- Identify and categorize them by type, administration, condition, timing and geography
- Evaluate and prioritize adaptation strategies using metrics, such as strategy cost, feasibility, timing of implementation, efficacy and co-benefits
- Consider using the Community Resilience Building workshop as momentum to conduct a full vulnerability assessment detailing the magnitude of consequences associated with current and future climate hazards that weren't addressed at the workshop. Include how these events will affect internal operations, people, public health, the environment, economy, and capital and operating costs. Consider utilizing the Department of State's Asset Inventory Worksheet and Risk Assessment Tool<sup>1</sup>. **CSC PE7 Action: Climate Vulnerability Assessment (4-16 pts.)**
- Develop staff capacity through trainings to use risk-mapping tools, like flood insurance rate maps (FIRMs) and cumulative risk assessments
- Consider incorporating estimates of future financial losses resulting from flooding into plans

### Section 3- Public Outreach and Engagement

*Any of the information below can also be shared on the City's social media pages, brochures, etc. for CSC points. **CSC PE9 Action: Social Media (3 pts.)***

- Create a webpage on the City's website that is dedicated to storm preparedness and flood mitigation.
  - Add a link directing residents and businesses to the Dutchess County DER's webpage on storm-preparedness<sup>2</sup>
  - Consider publicizing the availability of floodplain information to property owners
  - Add a link directing residents to the Dutchess County DER's webpages<sup>3</sup> that provides information on what to include in an at-home emergency kit, emergency supplies, and evacuation kit (FEMA's Ready.gov checklist).
  - Provide residents with information on expected inundation areas, evacuation routes, and evacuation bus pick-up locations prior to the threat of a storm
  - Share the link from the Dutchess County DER's webpages<sup>4</sup> to the ASPCA's disaster preparedness steps for domesticated animals
  - Share FEMA suggested means<sup>5</sup> to protect homes against storm and wind damage with property owners in the community
  - Inform residents of the NY-Alert program and how they can sign up

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<sup>1</sup> <https://stormrecovery.ny.gov/community-regions/hudson-valley-and-westchester>

<sup>2</sup> <http://www.co.dutchess.ny.us/QuickLinks/17006.htm>

<sup>3</sup> <http://www.co.dutchess.ny.us/QuickLinks/17006.htm>

<sup>4</sup> <http://www.co.dutchess.ny.us/QuickLinks/17006.htm>

<sup>5</sup> <https://www.ready.gov/severe-weather>

- Provide property owners with guidelines to retrofit existing development for flood and wind risks
- Consider including information on the natural and beneficial functions of floodplains, wetlands, and green infrastructure into the NRI that is currently being updated

#### Section 4- Integration of Municipal Plans

- The City could consider adopting an Open Space Plan
- Consider adopting a Stormwater Management Plan with the help of a certified floodplain manager that includes green infrastructure regulations, identifies runoff and drainage problems, strategies to reduce storm water runoff from paved surfaces, identifies constraints for reaching permitted impervious coverage levels, collaborates with neighboring jurisdictions, describes municipal responsibilities for maintaining stormwater structures, and develops a stormwater utility
- When the Capital Improvements Plan is updated and formalized, consider the risk of flooding, coastal hazards, and sea-level rise on proposed infrastructure (over its entire life) and include technical studies and reports
- The next time the LWRP is updated, consider including sea level rise and other climate hazards, including the vulnerability of wildlife and habitat

#### Section 5- Disaster Preparedness and Recovery

- Consider becoming a Storm Ready Community through the National Weather Service
- When updating the Emergency Management Plan, consider adding these suggestions to the Response section:
  - Have emergency responders be aware of real-time ocean and estuarine observing systems and stream gauging information
  - Identify first responders (who they are)
  - Include a list of contacts for municipal facilities
  - Include steps for emergency protective measures
- Develop an evacuation plan or incorporate evacuation elements into the City's existing emergency plan. The evacuation plan could:
  - Clearly define responsibilities for municipal evacuation
  - Identify the necessary time frame for evacuating residents and vacationers from storm-hazard areas
  - Identify which evacuation routes are prone to flooding
  - Identify more than one route to evacuate the community
  - Consider the possibility of evacuation of neighboring jurisdictions occurring simultaneously
  - Identify and provide for groups that rely on public transportation (or lack private vehicles) for emergency evacuations

- Identify conditions that would initiate a traffic lane reversal
- Identify local and state evacuation assistance programs for the following special needs: hospitals, nursing homes, prisons, residents without personal transportation, elderly, disabled and schools
- Consider developing a Community Emergency Response Team (CERT) in addition to the volunteer fire, and career police and fire personnel who already provide emergency services to the community
- Look into the possibility of creating a Continuity of Operations Plan. This plan could include:
  - Guidance on post-disaster waste management and debris removal
  - Whether or not machinery for debris removal is located outside of flood hazard areas
  - If routes to waste-disposal facilities are passable in the event of a flood
  - Whether or not temporary waste-disposal staging areas are identified in the event of a disaster
- Consider developing a Long-Term Recovery Plan or incorporating long-term elements into the Emergency Management Plan. Elements could:
  - Identify redevelopment areas outside of flood hazard areas
  - Advocate the use of advisory flood maps to define post-disaster redevelopment building elevations
  - Identify opportunities to retrofit or relocate existing structures or infrastructure in hazard-prone areas
  - Utilize risk and vulnerability mapping to determine the location of future development
  - Include community identified lines of coordination in transitioning from short-term to long-term recovery
  - Include an organizational framework that facilitates the effective coordination and use of state, federal, and NGOs resources in a manner that provides maximum benefit for the disaster area
  - Include provisions to reduce greenhouse gas emissions from reconstructed areas through improved energy efficiency, use of renewable sources of energy and application of smart-growth principles
- Consider encouraging landowners to install green infrastructure to capture storm water and tolerate inundation, and using land management practices to improve water retention in soil

## Section 6- Hazard Mitigation Implementation

- Consider becoming a certified Climate Smart Community
- Look into developing a Climate Action Plan: **CSC PE2 Action Government Operations Climate Action Plan (12-16 pts.)** or **Community Climate Action Plan (16pts.)**

- Participate in FEMA’s Community Rating System, a voluntary incentive program that recognizes and encourages community floodplain management activities that exceeds the minimum National Flood Insurance requirements. **CSC PE7 Action: National Flood Insurance Program Community Rating System (3-9pts.)**
- Consider expanding utilized tools for managing development in hazard-prone areas to include techniques such as rolling easements or buyouts of vulnerable properties
- Look into using land-acquisition programs to purchase land-conservation easements in hazard-prone areas: **CSC PE7 Action: Restoration of Floodplains and Riparian Buffers (2 pts.)**
- Consider creating a Shoreline Restoration Plan and engaging in wetland or shoreline restoration of local waterbodies. Consider utilizing impact fees, accommodation taxes, or user fees to pay for restoration: **CSC PE7 Action: Restoration of Floodplains and Riparian Buffers (1-10 pts.)**
- Take advantage of federal funding for hazard mitigation programs (mentioned below)

### Additional Recommendations

- Consider hiring new staff to be able to complete the priority recommendations

### Potential Funding Sources

DEC Climate Smart Communities Grant Program: <https://www.dec.ny.gov/energy/109181.html>

DEC Grant Applications: <https://www.dec.ny.gov/pubs/grants.html>

DEC Hudson River Estuary Program Grants: <https://www.dec.ny.gov/lands/5091.html>

FEMA Hazard Mitigation Grant Program: <https://www.fema.gov/hazard-mitigation-grant-program>

FEMA Pre-disaster Mitigation Grant Program: <https://www.fema.gov/pre-disaster-mitigation-grant-program>

FEMA Flood Mitigation Assistance Grant Program: <https://www.fema.gov/flood-mitigation-assistance-grant-program>

HUD Community Development Block Grants:

[https://www.hud.gov/program\\_offices/comm\\_planning/communitydevelopment/programs](https://www.hud.gov/program_offices/comm_planning/communitydevelopment/programs)

NYS Department of State Grants (including Local Waterfront Revitalization Program):

<https://www.dos.ny.gov/funding/>