



SUSTAINABILITY, CLIMATE CHANGE AND FLOOD RESILIENCY RESOURCES

INTRODUCTION

Sustainability, climate change and resiliency have become common terms in our collective vocabulary when discussing the state of the planet, how to improve our living conditions and adaptation to significant storm events. But what does this all really mean?

There is a wide variety of resource materials available to the public, municipal officials and policy makers on these important topics.

Following is a list of resources, compiled by the Dutchess County Environmental Council, to help the reader better understand sustainability, climate change and resiliency, and to guide future discussion and decisions.

A. A Sample Of Available Reference Documents

- Creating EV-Ready Towns and Cities: A Guide to Planning and Policy Tools, November 2012 - New York State Energy Research and Development Authority (NYSERDA)
- Designing For Flood Risk Report, June 2013 - New York City Planning
- Developing Green Building Programs: A Step by Step Guide for Local Governments - Global Green USA
- Energy Action Consortia: Moving Municipalities Toward Collective Sustainability - Center for Research, Regional Education and Outreach (CRREO) State University of New York at New Paltz, Fall 2013

- Mid-Hudson Regional Sustainability Plan, May 2013 - Hudson Valley Regional Council
- Neighborhood Development Floating Zone: A Model Ordinance to Foster Green Community Development Using the LEED for Neighborhood Development Rating System, 2013 - U.S. Green Building Council & Land Use Law Center, Pace University
- The President's Climate Action Plan - Executive Office of the President, June 2013
- Technical Guidance Manual for Sustainable Neighborhoods, 2013 - U.S. Green Building Council & Land Use Law Center, Pace University
- Tompkins County, New York Comprehensive Plan - 2015
- Envision Cortlandt, 2016 Sustainable Comprehensive Plan, Town of Cortlandt, NY

NEW YORK STATE PROGRAMS

B. Climate Smart Community

Climate Smart Communities (CSC) is an unprecedented state-local partnership to reduce greenhouse gas emissions, save taxpayer dollars and advance community goals. Any town, city, village or county can join Climate Smart Communities, without cost. To join, the municipality must pass a resolution adopting the CSC Pledge and submit a certified copy to the New York State Department of Environmental Conservation (DEC). More information can be found here:

<http://www.dec.ny.gov/energy/50845.html>





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Climate Smart Resiliency Planning:

A Planning Evaluation Tool for New York State Communities, Climate Smart Resiliency Planning is a self-administered planning assessment tool based on Getting to Resilience: A Coastal Community Resilience Evaluation Tool, developed by the New Jersey Department of Environmental Protection (NJDEP) Coastal Management Office and funded by the National Oceanic and Atmospheric Administration (NOAA) through a Coastal Zone Management Grant. The planning tool can be found here: http://www.dec.ny.gov/docs/administration_pdf/csrptool.pdf

C. Cleaner, Greener Communities Program

A program to empower regions to create more sustainable development and encourage smart-growth practices. As part of this program the 10 regions in New York State, as defined by the Regional Economic Development Council (REDC), created comprehensive sustainability plans for smart growth and sustainability. Dutchess County is part of the Mid-Hudson Region. The initiative is described here:

<http://www.nyserda.ny.gov/All-Programs/Programs/Cleaner-Greener-Communities>

The Mid-Hudson Region Sustainability Plan can be found here:

<http://www.nyserda.ny.gov/All-Programs/Programs/Cleaner-Greener-Communities/Regional-Sustainability-Plans/Mid-Hudson>

Guidance on how to develop a sustainability plan can be found here:

<http://www.dec.ny.gov/energy/76910.html>

NATIONAL/GLOBAL ORGANIZATIONS

D. ICLEI—Local Governments For Sustainability

The International Council for Local Environmental Initiatives (ICLEI) is the leading global network devoted to local governments engaged in sustainability, climate protection, and clean energy initiatives. In the United States, ICLEI USA is the recognized leader in its field, creating cutting-edge tools and establishing national standards.

ICLEI Resources Include:

- Preparing for Climate Change: A Guidebook for Local, Regional and State Governments
<http://icleiusa.org/wp-content/uploads/2015/06/Preparing-for-Climate-Change-Adaptation-Guidebook.pdf>
- Five Milestones of Emissions Management
<http://www.icleiusa.org/programs/emissions-management/5-milestones/>
- How Self-Reliant Cities Can Use Raw-Materials
<http://ilsr.org/self-reliant-cities-raw-materials>

EXAMPLE: In Poughkeepsie, the city is providing four acres to Greenway Environmental Services, a composting company, which will create the foundation for an intensive urban agriculture sector. Urban agriculture is essential for sustainable cities.

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E. National Flood Insurance Program Community Rating System

The Federal Emergency Management Agency (FEMA) National Flood Insurance Program (NFIP) Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements.

As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from community actions meeting the three goals of the CRS:

1. Reduce flood damage to insurable property.
2. Strengthen and support the insurance aspects of the NFIP.
3. Encourage a comprehensive approach to floodplain management.

<http://www.fema.gov/national-flood-insurance-program-community-rating-system>

F. Resilient Communities For America (RC4A)

RC4A is an organization that champions the leadership of hundreds of local elected officials who commit to creating more prepared communities that can bounce back from extreme weather, energy and economic challenges.

<http://www.resilientamerica.org>

G. Regional Climate Change Projections

- NYC Panel on Climate Change: Climate Risk Information

http://www.nyc.gov/html/om/pdf/2009/NPCC_CRI.pdf

H. Adaptation Strategies And Planning

- Rising Waters Project: Helping Hudson River Communities Adapt to Climate Change, Scenario Planning 2010 – 2030 Executive Summary

http://www.nature.org/media/newyork/rw_070509_exec.pdf

- Addressing Climate Change at the Municipal Level - Cornell Climate Change

<http://climatechange.cornell.edu/addressing-climate-change-at-the-municipal-level/>

<http://climatechange.cornell.edu>

Examples of Resiliency and Sustainability Plans in New York State

- Climate Change Adaptation in New York City: Building a Risk Management Response
<http://www.nyas.org/publications/annals/Detail.aspx?cid=ab9d0f9f-1cb1-4f21-b0c8-7607daa5dfcc>

- PlanNYC: New York City Local Law 84 Benchmarking Report, September 2014
http://www.nyc.gov/html/planyc/downloads/pdf/publications/2014_nyc_ll84_benchmarking_report.pdf





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- Town of Pleasant Valley Code Chapter 50: Flood Damage Prevention
<http://ecode360.com/7088369>
- City of Kingston Resiliency and Sustainability Initiatives
<http://www.scenichudson.org/sites/default/files/kingston-waterfront-flooding-plan.pdf>
- City of New Rochelle Sustainability Plan
<http://www.newrochelleny.com/DocumentCenter/Home/View/444>
- Village of Tarrytown Riverwalk
<http://www.scenichudson.org/aboutus/pressroom/tarrytown-groundbreaking>
- Sustainable Westchester
<http://www.sustainablewestchester.org/>
- Westchester Power (part of the national Community Choice Aggregation [CCA]) is a community-based bulk energy purchasing program intended to lower costs and increase the use of renewable energy in Westchester County. Westchester Power is a program initiated and implemented by Sustainable Westchester Inc. on behalf of member municipalities that have chosen to participate in the program.
<http://www.westchesterpower.org/>

Examples of Adaptation Plans from Around the Country

- Keene, New Hampshire - ICLEI Case Study: Keene, NH Leading on Climate Preparedness
http://www.mayorinnovation.org/images/uploads/pdf/4-ICLEI_case_study_Keene_adaptation.pdf
- Adapting to Climate Change: Planning a Climate Resilient Community, November 2007
http://www.ci.keene.nh.us/sites/default/files/Keene%20Report_ICLEI_FINAL_v2_0.pdf
- Homer, Alaska - ICLEI Case Study
http://research.fit.edu/sealevelriselibrary/documents/doc_mgr/415/ICLEI_Homer,Alaska_Adaptation_Case_Study.pdf
- Center for Clean Air Policy Urban Leaders Adaptation Initiative Ask the Climate Question: Adapting to Climate Change in Urban Regions, June 2009

I. Web-Based Toolkits

- The Climate Adjustment Tool, in addition to other tools in the President's Climate Action Plan Virtual Climate Resilience Toolkit, can help users make planning, analysis and design decisions that will guard against the impacts of climate change. Using these tools to choose the best adaptation options is an innovative and efficient way to promote healthy waters and support more sustainable communities.
<http://toolkit.climate.gov/tools>



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- U.S. Environmental Protection Agency (USEPA) Stormwater Calculator (desktop application) is a tool that can be used by homeowners, landscapers and developers to estimate the amount of rainwater and frequency of runoff on a specific site based on local soil conditions, land cover, historic rainfall records and climate change scenarios.

<http://www2.epa.gov/water-research/national-stormwater-calculator>

- Scenic Hudson Sea Level Rise Mapper is a tool that allows users to create visualizations of future scenarios of sea level rise.

<http://www.scenichudson.org/slr/mapper>

- NOAA Office for Coastal Management's Digital Coast Website provides communities with the data, tools and training they need to address coastal issues.

<https://coast.noaa.gov/digitalcoast>

- CAKE - Climate Adaptation Knowledge Network provides links to tools and mapping resources as well as case studies.

<http://www.cakex.org/>

J. New York State Initiatives For Preparing For Climate Change

- NYS Climate Action Council
<http://www.climatestrategies.us/>
- NYS Sea Level Rise Task Force
<http://www.dec.ny.gov/energy/45202.html>

- ClimAID: Responding to Climate Change in New York State

<http://www.nyserda.ny.gov/climaid>

K. Articles On Climate Resiliency

- Campaign for Climate Resilience Spreads Across U.S., June 2013
<http://www.climatecentral.org/news/campaign-for-climate-resilience-spreads-at-local-level-16135>
- Storm-Ready Cities: How Climate Resilience Boosts Metro Areas and the Economy, October 2013
<http://www.americanprogress.org/issues/green/report/2013/10/22/77660/storm-ready-cities/>
- U.S. Conference of Mayors Adopts Resolution Supporting and Advancing Resilient Communities, June 2013
<http://worldwildlife.org/blogs/wwf-climate-blog/posts/u-s-conference-of-mayors-adopts-resolution-supporting-and-advancing-resilient-communities>

L. Other Resources

- Pace Land Use Law Center
<http://www.law.pace.edu/landuse>
- Regional Plan Association
<http://www.rpa.org/>
- International Economic Development Council Restore Your Economy.org: A Disaster Recovery Web Portal
<http://restoreyoureconomy.org/>



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- Climate Change and Adaptation Planning Resources
<http://trnerr.org/wp-content/upload/2013/04/Wed-Resources-Adaptation-Planning.pdf>
- Cornell University Hudson Estuary Watershed Resilience Project: Building Long-term Resilience to Extreme Weather and Climate Change in the Hudson River Estuary Watershed
<http://blogs.cornell.edu/estuaryresilience/resources/>
- Flood Preparedness & Response: A Guide for Municipalities
<http://blog.cornell.edu/estuaryresiliemce/files/2013/10/Flood-Guide-2014-vfinal-228xnb.pdf>
- One New York: The Plan for a Strong and Just City
<http://www1.nyc.gov/html/onenyc/index.html>
- PlaNYC on Resiliency
<http://www.nyc.gov/html/planyc/html/resiliency/resiliency.shtml>
- Smart Growth: U.S. Environmental Protection Agency
http://www.epa.gov/smartgrowth/about_sg.htm
- Climate Change Program for the Hudson River Estuary, New York State Department of Environmental Conservation
<http://www.dec.ny.gov/lands/39786.html>

M. Some Potential Funding Options

- FEMA - The Federal Emergency Management Agency has five grant programs to help communities reduce loss of life and property: Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM), Flood Mitigation Assistance (FMA), Repetitive Flood Claims (RFC), and Severe Repetitive Loss (SRL).
- NYS EFC - The Environmental Facilities Corporation offers the Green Innovation Grant Program (GIGP), which provides money for projects that utilize unique stormwater infrastructure design and create cutting-edge green technologies.
- SU EFC - Syracuse University Environmental Finance Center offers a variety of grant opportunities; the publication, Funding Guide for Capital Projects in Sustainable Materials Management; and links to other resources.
- NWF - National Wildlife Federation Conservation Funding has offered grant money for habitat and natural resource restoration.
- U.S. Climate Resilience Toolkit: Funding Opportunities
<http://toolkit.climate.gov/content/funding-opportunities>



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CLOSING

For more information on these subjects please contact the Dutchess County Environmental Management Council:

Postal Address:

Dutchess County EMC
c/o Cornell Cooperative Extension
Dutchess County
Environment and Energy Program
2715 Route 44
Millbrook, NY 12545

Phone:

(845) 677-5253 x 153

E-Mail:

dutchessemc@gmail.com
or
john.degilio@marist.edu

Note: Web-based resources change often. All information presented herein was available as of July 15, 2016.

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