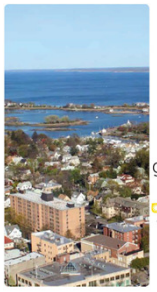
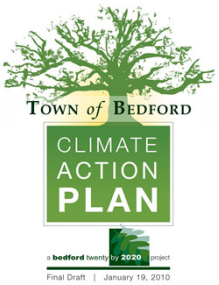
Sustaining Sustainability: The Next Little Thing

Pace Land Use Law Center Annual Conference * December 5, 2014





CLEANER GREENER COMMUNITIES

The New NY WORKS for Business

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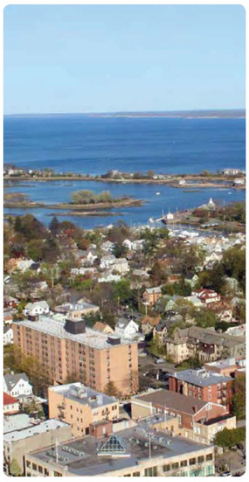
WMPF Planning Achievement Award 2011



greeNR
The New Rochelle Sustainability Plan 2010 - 2030
Vision and Action for a Healthier Community

Sustaining Sustainability: The Next Little Thing

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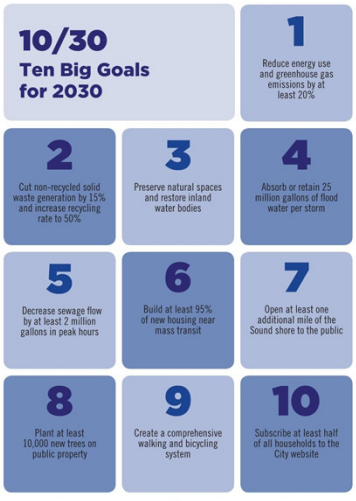

greeNR
The New Rochelle Sustainability Plan 2010 - 2030

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greeNR
The New Rochelle Sustainability Plan 2010 - 2030

Action Plan Summary:

Energy & Climate

Reduce local energy consumption and greenhouse gas emissions while transitioning to renewable sources of energy and adapting to probable climate changes.

GOALS BY 2030:

- **Reduce annual per capita energy consumption by at least 20%, from 125 MMbtus to 100 MMbtus**
- **Reduce annual per capita CO_2e emissions by at least 20%, from 9.0 metric tons to 7.2 metric tons.**
- Reduce municipal energy use, GHG emissions, and costs for lighting by at least 40% and for buildings by at least 15%.
- Increase the average gas mileage of the municipal fleet by 50% from 10 mpg to 15 mpg.
- Align with New York State objectives to obtain at least 30% of energy from renewable sources.

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The New Rochelle Sustainability Plan 2010 - 2030

Action Plan Summary:

Resource Conservation & Waste Reduction

Cut waste generation, improve recycling rates, encourage conservation and efficient use of water and other natural resources.

GOALS BY 2030:

- **Reduce annual per capita non-recycled solid waste by at least 15% from 777 pounds to 660.5 pounds and increase recycling rate to 50%.**
- **Reduce daily peak non-storm wastewater generation by at least 2 million gallons from 20.5MGD to 18.5 MGD.**
- Reduce daily per capita water use by at least 15% from 159 gallons to 135 gallons.
- Cut municipal waste generation by at least 20%, while increasing the municipal recycling rate from 50% to 75%.
- Achieve near universal household participation in recycling.
- Reduce annual municipal water consumption by at least 10%, from 8.57MG to 7.71MG.
- Encourage at least 500 families to compost their organic waste.

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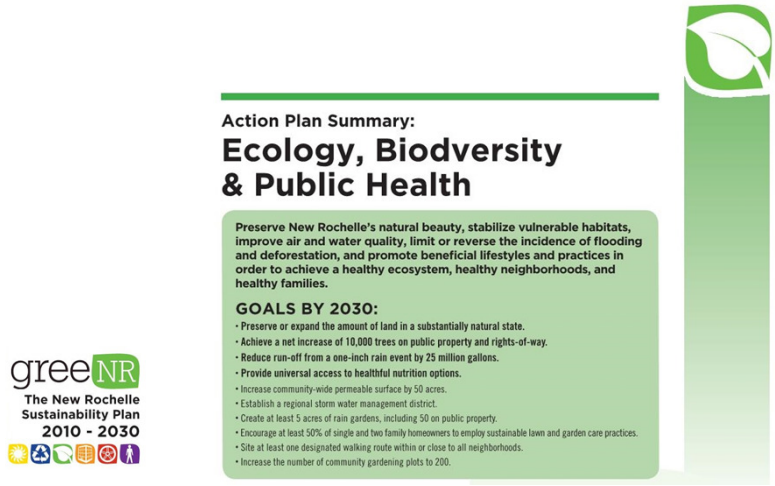

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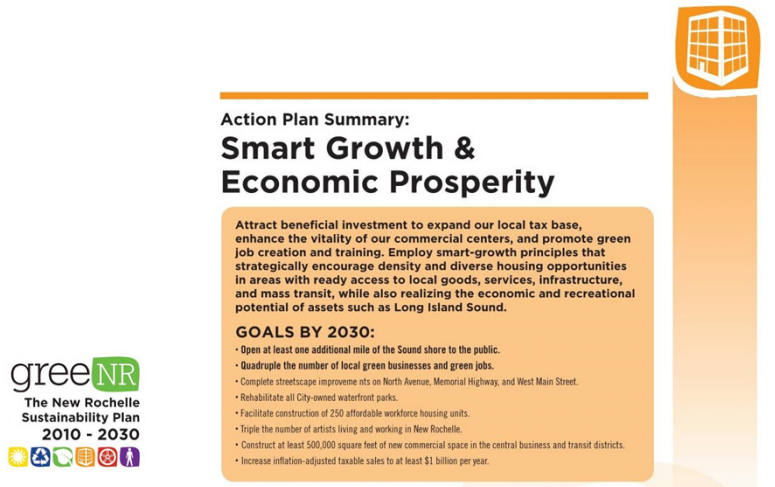

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http://www.newrochelleny.com/DocumentCenter/Home/View/2054

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The New Rochelle Sustainability Plan 2010 - 2030

Action Plan Summary:

Transportation & Mobility

Facilitate and encourage the use of sustainable transportation options, including walking, bicycling, carpooling and mass transit, while also reducing traffic congestion and enhancing the safety and efficiency of transportation routes.

GOALS BY 2030:

- **Create a comprehensive, safe, continuous and community-wide walking and bicycling system.**
- **Achieve at least a 50% increase in the number of commuters who walk or bike, from 3,300 to 5,000.**
- Increase the miles of local sidewalk in good repair from 136 to at least 195.
- Establish at least 350 bicycle parking spaces along at least 30 miles of designated bicycle routes.
- Cut by 25% the peak hour travel time from Eastchester Road to Huguenot Street, from 4 minutes to 3 minutes.
- Reduce the rate of single-vehicle occupancy commutes to City Hall by at least 15%, from 96% to 81%.

http://www.newrochelleny.com/DocumentCenter/Home/View/2054

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The New Rochelle Sustainability Plan 2010 - 2030

Action Plan Summary:

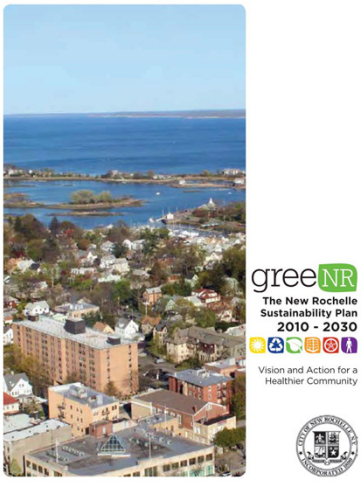
Public Participation & Awareness

Empower all residents to obtain information about local challenges and issues, make sensible choices about individual lifestyles and practices, and participate fully in community activities and decision-making.

GOALS BY 2030:

- **Subscribe at least half of all households to the official City website.**
- **Achieve near-universal English-language proficiency.**
- **Achieve near-universal awareness of the GreeNR logo and its meaning.**
- Restore distribution of a semi-annual City newsletter.
- Reduce by 7.2 million the number of non-biodegradable plastic shopping bags used annually in New Rochelle.

WMPF Planning Achievement Award 2011



WMPF Special Regional Planning Award 2013

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Mid-Hudson Regional Sustainability Plan

Sustaining Sustainability - Pace Land Use Law Center Conference

December 5, 2014

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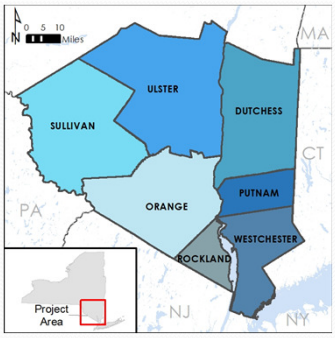
What is the Mid-Hudson Regional Sustainability Plan?

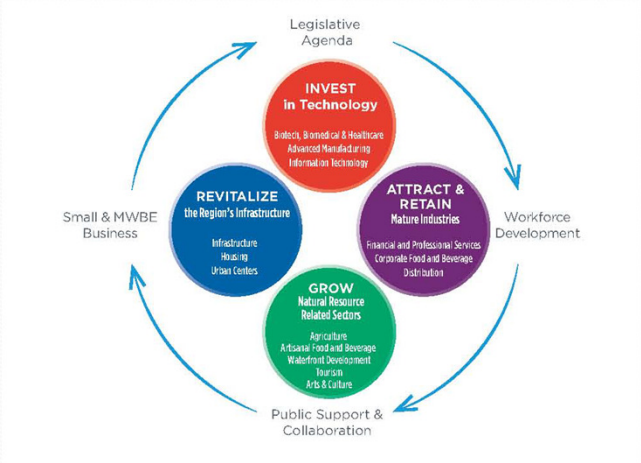
A long-term vision and plan for sustainable development in the **Mid-Hudson Region**



- Environmental sustainability
- Quality of life
- Economic development

Mid-Hudson Regional Sustainability Plan

Align with the Regional Economic Development Strategy



Mid-Hudson Regional Sustainability Plan

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REDC Vision Statement

Transforming the Hudson Valley into the country's most diverse, sustainable and nurturing pro-business community by fostering growth through targeted investments in key industries such as:

- Information technology,
- Biotechnology
- Healthcare
- Agriculture
- Distribution and tourism

- Resulting in broad economic expansion and employment opportunities for the benefit of all New Yorkers.

Mid-Hudson Regional Sustainability Plan

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Plan Layout

Where are we?

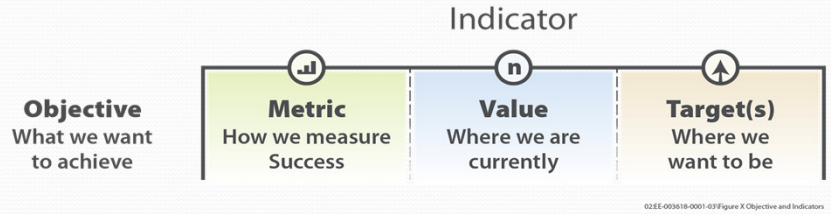
- Baseline Conditions

Where do we want to go?

- Objectives and Indicators

How do we get there?

- Implementation "Project" Priorities
- Enabling Strategies



02.EE-003618-0001-03\Figure X Objective and Indicators

Mid-Hudson Regional Sustainability Plan

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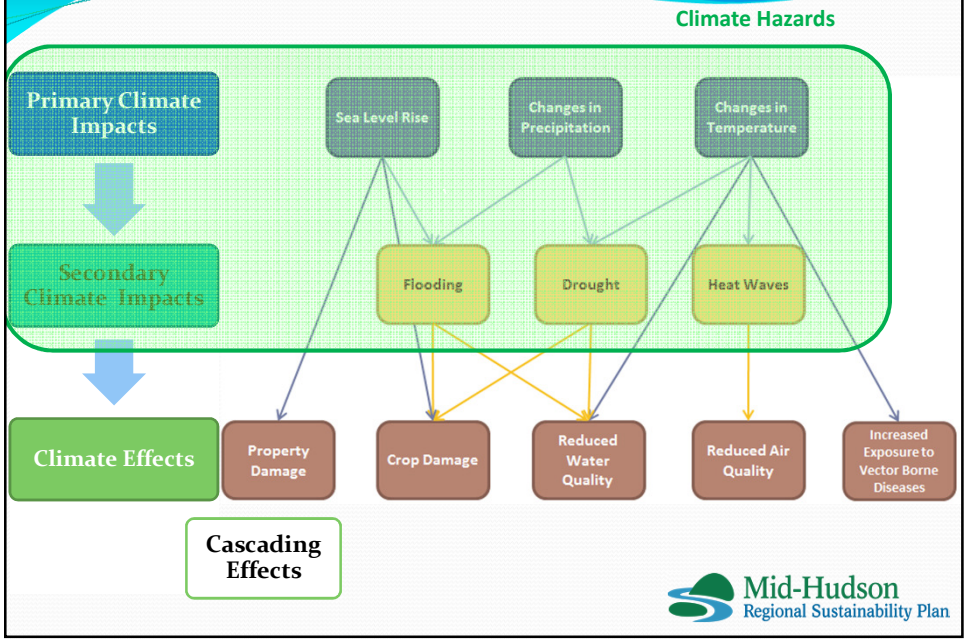
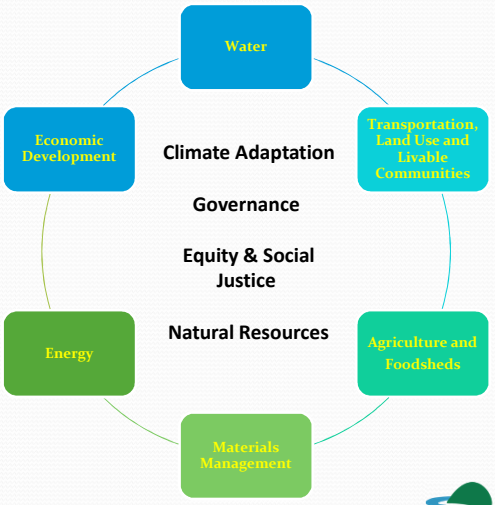


Mid-Hudson Regional Sustainability Plan

Context of Climate Adaptation Work



Mid-Hudson Regional Sustainability Plan

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Focus Areas

Central Themes Discussed Throughout Plan:

1. Land Use, Livable Communities, and Transportation
2. Energy
3. Materials Management
4. Agriculture and Open Space
5. Water

Addressing issues through out region as it relates to climate impacts and hardening of infrastructure for resiliency

Mid-Hudson Regional Sustainability Plan

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Short list of objectives of the Plan

- Create Complete Communities
  - Improve walkability, proximity to services, and jobs/housing balance in communities without access to mass transit
- Strengthen Centers Supported by Transit
- Reduce the volume of solid waste generated
- Increase the proportion of materials diverted from landfills via reuse, recycling, composting and other organic recycling methods

Mid-Hudson Regional Sustainability Plan

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Short list of objectives of the Plan

- Become radically less energy intensive while maintaining a strong regional economy
- Expand renewable generation as an energy source across the Region
- Improve the continuity of the energy delivery system throughout the Region

These objective lead to the development of different priority projects under each category

Mid-Hudson Regional Sustainability Plan

Priority Projects for Implementation

- **Create Complete Communities through:**
  - Land Efficient Development (LED)
    - E.g. Kingston Factory adaptive reuse
  - Livability Improvements
  - Street and Sidewalk Improvements
    - E.g. Pedestrian improvements at the intersection of Route 35 & 138 in Lewisboro
  - Bicycle Improvements
    - E.g. the Hudson Fjord Hike/Bike Trail, an eight-mile path between Little Stony Point in Cold Spring and Breakneck Ridge in Beacon
- **Expand and Upgrade Mass Transit**
- **Employ Transportation Demand and Systems Management to Relieve Highway Congestion**

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Priority Projects for Implementation

- **Enhance product stewardship**
  - Shopping center/retail procurement initiative
- **Expand organics recycling**
  - Expand "Love 'Em or Leave 'Em"
  - NYS Corrections compost program
  - Ulster CRRA compost expansion
  - Cornell Cooperative Extension education program
- **Encourage material reuse**
  - Building Material Reuse Facility
- **Increase transportation efficiency and options**
  - Intermodal/rail transfer station

Mid-Hudson Regional Sustainability Plan

Priority Projects for Implementation

- **Implement Low Impact Development (LID) and Green Infrastructure**
  - Poughkeepsie Underwear Factory demonstration project
  - SUNY New Paltz green infrastructure program
- **Water and Energy Efficiency Upgrades**
- **Renewable Energy Production**
- **Climate Hardening**
  - Culvert Analysis and Resizing Project

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Why Should Local Governments Implement the Plan?

- ***Funding***
  - Consolidated Funding Application (CFA)
  - Phase II of Cleaner, Greener Communities Program
  - Other Funding Sources
- ***Cost Savings***
- ***Access to Technical Assistance***
- ***Livable Communities as Economic Development Catalyst***

Mid-Hudson Regional Sustainability Plan

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What do local governments need to do to implement the Plan?

- ***Short-Term Actions:***
  - Engage in Sustainability Efforts Regionally
  - Identify and Task an Existing Entity to Lead Sustainability Efforts
  - Identify existing or proposed projects that conform to the Plan's Implementation Priorities and/or Enabling Strategies
  - For Local Governments, Adopt Climate Smart Communities Pledge

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What do local governments need to do to implement the Plan?

- ***Longer-Term Actions:***
  - Develop and Implement Sustainability Recommendations

Mid-Hudson Regional Sustainability Plan

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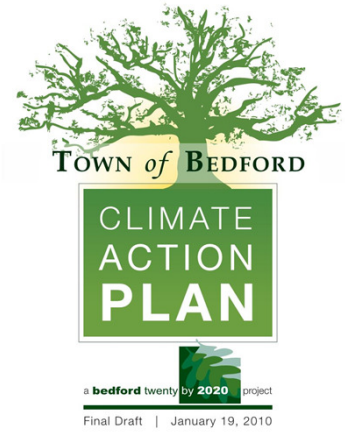
Where to Find the Plan?

http://www.co.orange.ny.us

http://www.greenburghny.com

Mid-Hudson
Regional Sustainability Plan

WMPF Planning Achievement Award 2010



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http://bedford2020.org/assets/Action%20Plan_Final.pdf

Municipal Energy Measures

Efficient Lighting Retrofits

Lighting is typically the largest electricity user in commercial buildings. Many municipal buildings use fluorescent lighting, which is relatively efficient, but many buildings still have older fixtures with magnetic ballasts and T-12 size fluorescent tubes. New electronic ballasts with T-8 size tubes use 30% less energy and can provide better light quality without flicker.

The town of Bedford will identify lighting inefficiencies in town owned buildings and install more energy efficient lighting where necessary.

Total Cost: $18,621 ($0.47 incremental cost of retrofit $/sq. ft.)
Payback: 5.7 years
Co-Benefits:

Scope

39,620 sq. ft. retrofitted with efficient lighting

Annual Reductions

CO_2e: 12 tonnes
Energy: 32,782 kWh
$: $3,278
NOx: 33 lbs
SOx: 138 lbs
CO: 34 lbs
VOCs: 4 lbs
PM10: 30 lbs

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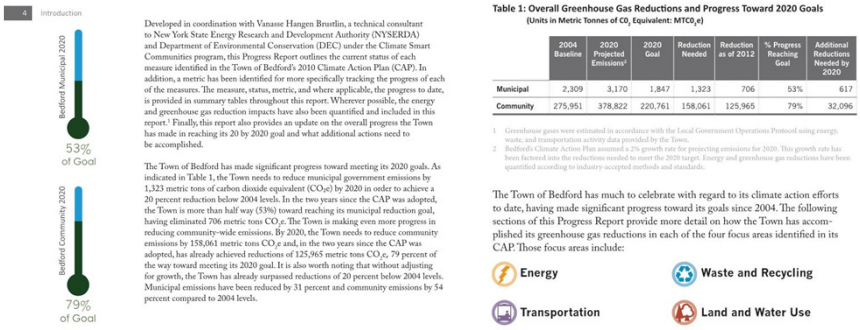
http://bedford2020.org

wmpf

http://bedford2020.org/assets/progressreport-june2014.pdf



4 Introduction

Bedford Municipal 2020

53% of Goal

Bedford Community 2020

79% of Goal

Developed in coordination with Vanasse Hangen Brustlin, a technical consultant to New York State Energy Research and Development Authority (NYSERDA) and Department of Environmental Conservation (DEC) under the Climate Smart Communities program, this Progress Report outlines the current status of each measure identified in the Town of Bedford's 2010 Climate Action Plan (CAP). In addition, a metric has been identified for more specifically tracking the progress of each of the measures. The measure, status, metric, and where applicable, the progress to date, is provided in summary tables throughout this report. Wherever possible, the energy and greenhouse gas reduction impacts have also been quantified and included in this report.[1] Finally, this report also provides an update on the overall progress the Town has made in reaching its 20 by 2020 goal and what additional actions need to be accomplished.

The Town of Bedford has made significant progress toward meeting its 2020 goals. As indicated in Table 1, the Town needs to reduce municipal government emissions by 1,323 metric tons of carbon dioxide equivalent (CO_2e) by 2020 in order to achieve a 20 percent reduction below 2004 levels. In the two years since the CAP was adopted, the Town is more than half way (53%) toward reaching its municipal reduction goal, having eliminated 706 metric tons CO_2e. The Town is making even more progress in reducing community-wide emissions. By 2020, the Town needs to reduce community emissions by 158,061 metric tons CO_2e and, in the two years since the CAP was adopted, has already achieved reductions of 125,965 metric tons CO_2e, 79 percent of the way toward meeting its 2020 goal. It is also worth noting that without adjusting for growth, the Town has already surpassed reductions of 20 percent below 2004 levels. Municipal emissions have been reduced by 31 percent and community emissions by 54 percent compared to 2004 levels.

Table 1: Overall Greenhouse Gas Reductions and Progress Toward 2020 Goals
(Units in Metric Tonnes of CO_2 Equivalent: $MTCO_2e$)

	2004 Baseline	2020 Projected Emissions[2]	2020 Goal	Reduction Needed	Reduction as of 2012	% Progress Reaching Goal	Additional Reductions Needed by 2020
Municipal	2,309	3,170	1,847	1,323	706	53%	617
Community	275,951	378,822	220,761	158,061	125,965	79%	32,096

1 Greenhouse gases were estimated in accordance with the Local Government Operations Protocol using energy, waste, and transportation activity data provided by the Town.
2 Bedford's Climate Action Plan assumed a 2% growth rate for projecting emissions for 2020. This growth rate has been factored into the reductions needed to meet the 2020 target. Energy and greenhouse gas reductions have been quantified according to industry-accepted methods and standards.

The Town of Bedford has much to celebrate with regard to its climate action efforts to date, having made significant progress toward its goals since 2004. The following sections of this Progress Report provide more detail on how the Town has accomplished its greenhouse gas reductions in each of the four focus areas identified in its CAP. Those focus areas include:

- Energy
- Waste and Recycling
- Transportation
- Land and Water Use

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CLEANER GREENER COMMUNITIES

The New NY WORKS for Business

NYSERDA's Cleaner, Greener Communities Program

Pace University Land Use Law Center
Land Use and Sustainable Development Conference
"Transitioning Communities"
December 5, 2014

Jennifer Manierre
New York State Energy Research & Development Authority (NYSERDA)

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Cleaner, Greener Communities Goals

1. Incentivize sustainable communities
2. Economic revitalization through green jobs
3. Increase energy efficiencies and renewable energy
4. Strengthen environmental justice
5. Support development of environmentally-friendly public and private transportation
6. Protect & preserve New York State's natural resources

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Phase I: Regional Planning

- Provide resources for all NYS regions to develop <u>comprehensive</u> sustainability plans
- Regions defined by Regional Economic Development Council (REDC) boundaries
- One ~$1 million grant per REDC Region (10)

CGC Website: http://www.nyserda.ny.gov/Governor-Initiatives/Cleaner-Greener-Communities.aspx

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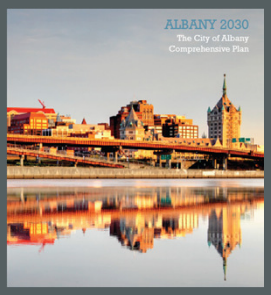
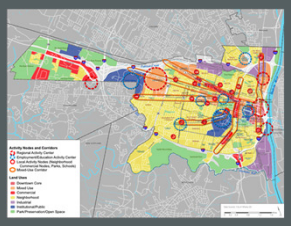
Phase II – Implementation

- Provide funding for the implementation of sustainability projects consistent with the plans developed in Phase 1
- $90 million available over the 3-year life of the program
- Round 2 funding solicitation closed in June (PON 2951)
- Likely ~$30 million committed for Round 3





CGC Website: http://www.nyserda.ny.gov/Governor-Initiatives/Cleaner-Greener-Communities.aspx

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Phase II – Implementation Phase

Program Structure for Round 2 of Phase II (PON2951):

- Category 1, Permitting (Open Enrollment)
- Category 2, Planning Initiatives (Competitive)
- Category 3, Sustainability Projects (Competitive)

CGC Website: http://www.nyserda.ny.gov/Governor-Initiatives/Cleaner-Greener-Communities.aspx

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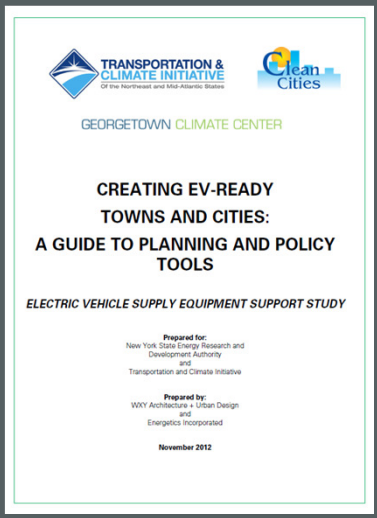
Category 1: Permitting


TRANSPORTATION & CLIMATE INITIATIVE
Of the Northeast and Mid-Atlantic States
Clean Cities
GEORGETOWN CLIMATE CENTER

CREATING EV-READY TOWNS AND CITIES: A GUIDE TO PLANNING AND POLICY TOOLS

ELECTRIC VEHICLE SUPPLY EQUIPMENT SUPPORT STUDY

Prepared for:
New York State Energy Research and Development Authority
and
Transportation and Climate Initiative

Prepared by:
WXY Architecture + Urban Design
and
Energetics Incorporated

November 2012

Permitting

Photovoltaic (PV) Systems & Electric Vehicle (EV) Charging Stations

Funding:

- Adoption of model streamlined permitting and other ordinances

Applications accepted through September 2015

CGC Website: http://www.nyserda.ny.gov/Governor-Initiatives/Cleaner-Greener-Communities.aspx

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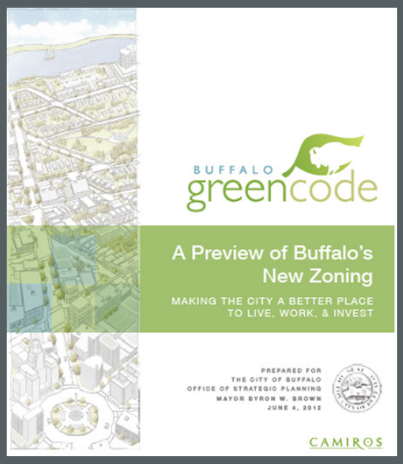
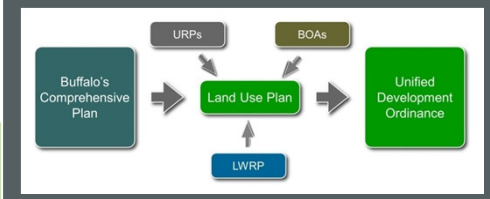
Category 2: Planning Case Study

Buffalo Green Code





Source: http://www.buffalogreencode.com/

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Category 3: Sustainability Projects Case Study

I-Square, LLC: Mixed Use Development in Rochester

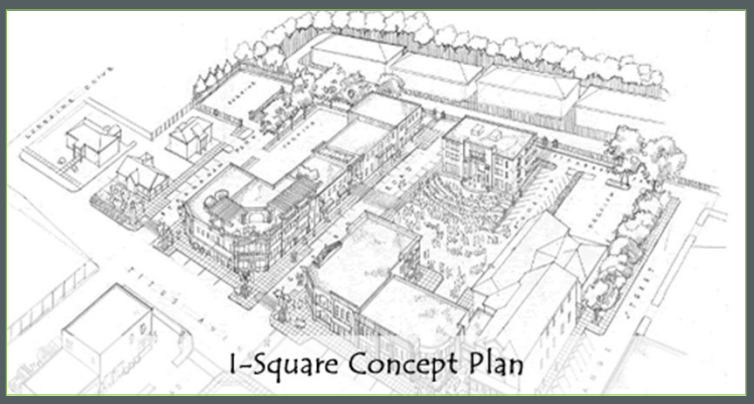

Photo source: http://www.rochestersubway.com/topics/2011/08/irondequoit-square/

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Climate Smart Communities

1. Pledge to be a Climate Smart Community.
2. Set goals, inventory emissions, plan for climate action.
3. Decrease community energy use.
4. Increase community use of renewable energy.
5. Realize benefits of recycling and other climate-smart solid waste management practices.
6. Reduce greenhouse gas emissions through use of climate-smart land-use tools.
7. Enhance community resilience and prepare for the effects of climate change.
8. Support development of a green innovation economy.
9. Inform and inspire the public.
10. Commit to an evolving process of climate action.

CSC website: www.dec.ny.gov/energy/50845.html

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Future Communities Work

- Local Governments as both **customers** and **channels**
- Unified, flexible interagency approach/framework
- Technical/coordination /planning assistance
- Tools, model regulations, best practices guides, etc.
- Simple, accessible

Still very much in the planning stage. More to come!

Thank you!
jennifer.manierre@nyserda.ny.gov

Clean Energy Fund, NYSERDA's Initial Proposal:
http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7BDABF6A8A-17A5-441F-AC44-48587105CF6D%7D

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