Sustaining Sustainability: The Next Little Thing

Pace Land Use Law Center Annual Conference * December 5, 2014
WMPF Planning Achievement Award 2011

Sustaining Sustainability: The Next Little Thing

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

10/30 Ten Big Goals for 2030

1. Reduce energy use and greenhouse gas emissions by at least 25%.

2. Cut non-renewable energy use with a minimum of 10% and increase renewable energy use to 30%.

3. Prevent water leaks and reduce demand with water audits.

4. Achieve a rating of 75 or better gardens of Green Roofs per square mile.

5. Increase energy flow by at least 2 million gallons in peak hours.

6. Build at least 20% of new buildings from sustainable materials.

7. Open at least one additional block of the South Bronx to the public.

8. Protect at least 25% of our wildlife habitat.

9. Create a comprehensive waste and recycling system.

10. Subscribe to at least half of all new building permits to the City website.

Sustaining Sustainability: The Next Little Thing
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 MBtu to 100 MBtu.
- Reduce annual per capita CO2 emissions by at least 20%, from 0.8 metric tons to 0.6 metric tons.
- Reduce municipal energy use, GHG emissions, and costs for lighting by at least 40% for all buildings by at least 35%.
- Increase the average gas mileage of the municipal fleet by 25% from 18 mpg to 23 mpg.
- Align with New York State objectives to obtain at least 20% of energy from renewable sources.

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 5% from 773 pounds to 683 pounds and increase recycling rates by 35%.
- Reduce daily peak non-home water generation by at least 2 million gallons from 25 MMGD to 18.5 MMGD.
- Reduce daily per capita water use to at least 10% from 179 gallons to 158 gallons.
- Cut municipal waste generation by at least 35%, 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 0.5 MGD to 0.47 MGD.
- Encourage at least 300 families to compost their organic waste.
Sustaining Sustainability: The Next Little Thing

Action Plan Summary:
Ecology, Biodiversity & Public Health

Preserve New Rochelle’s natural beauty, stabilize vulnerable habitats, improve air and water quality, limit or reverse the incidence of flooding and deterioration, and promote beneficial lifestyles and practices in order to achieve a healthy ecosystem, healthy neighborhoods, and healthy families.

GOALS BY 2030:
- Preserve or re-plant the amount of tree in a substantially intact state.
- Achieve a net increase of 10,000 trees per acre of property and streetscape.
- Reduce runoff from a one-inch rain event by 25 million gallons.
- Provide manmade access to natural habitats.
- Increase community-wide permeability to 50%.
- Establish a comprehensive storm-water management district.
- Create at least 2 acres of new green space, including 25% on public properties.
- Increase at least 33% of single-family and multi-family homes to achieve sustainable lawn and garden care practices.
- Site at least one demonstration working model in each of the city’s neighborhoods.

Sustaining Sustainability: The Next Little Thing

Action Plan Summary:
Smart Growth & Economic Prosperity

Attract beneficial investment to expand our local tax base, enhance the quality of our commercial centers, and promote green job creation and training. Employ smart-growth principles that strategically encourage density and diverse housing opportunities in areas with ready access to local goods, services, infrastructure, and mass transit, while also realizing the economic and recreational potential of assets such as Long Island Sound.

GOALS BY 2030:
- Open a total area of at least 10 acres of green space to the public.
- Build the number of local green businesses and green jobs.
- Complete strategic improvements on North Avenue, Merritt Avenue, and West Main Street.
- Mitigate the effects of climate on water and air quality.
- Facilitate the number of middle-income housing units.
- Increase the number of local housing units with green features.
- Increase the amount of green open space in the central business and transit districts.
- Increase the number of affordable housing units by at least 10% in future year.

Sustaining Sustainability: The Next Little Thing
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 0.9% to 5.0%.
- Increase the miles of local sidewalks by 30% from 137 to at least 180.
- Establish at least 200 bicycle parking spaces along at least 20 miles of designated bicycle routes.
- Cut by 25% the peak-hour travel time from Eastchester Road to Royaumont Street, from 4 minutes to 3 minutes.
- Reduce the rate of single-vehicle occupancy commutes to City Hall by at least 12%, from 90% to 78%.

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 GreenNR logo and its meaning.
- Reduce the 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.
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
Align with the Regional Economic Development Strategy

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.
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

Objective
What we want to achieve

Metric
How we measure success

Value
Where we are currently

Target(s)
Where we want to be

Primary Climate Impacts

Secondary Climate Impacts

Climate Effects
- Property Damage
- Crop Damage
- Reduced Water Quality
- Reduced Air Quality
- Increased Exposure to Vector-Borne Diseases

Cascading Effects

Climate Hazards

- Sea Level Rise
- Changes in Precipitation
- Changes in Temperature
- Flooding
- Drought
- Heat Waves

Mid-Hudson Regional Sustainability Plan
Context of Climate Adaptation Work

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 throughout region as it relates to climate impacts and hardening of infrastructure for resiliency*
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

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

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

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**
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

- **Longer-Term Actions:**
  - Develop and Implement Sustainability Recommendations
Where to Find the Plan?

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

http://www.greenburghny.com

WMPF Planning Achievement Award 2010

Town of Bedford
CLIMATE ACTION PLAN

Sustaining Sustainability: The Next Little Thing
### 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**

- CO₂: 12 tonnes
- Energy: 33,782 kWh
- $: 3,378
- NOx: 33 lbs
- SOx: 138 lbs
- CO: 34 lbs
- VOCs: 4 lbs
- PM10: 30 lbs
Sustaining Sustainability: The Next Little Thing

Table 1: Overall Greenhouse Gas Reductions and Progress Toward 2020 Goals

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal</td>
<td></td>
<td>3,139</td>
<td>3,170</td>
<td>101%</td>
<td>100%</td>
<td>100%</td>
<td>99%</td>
<td>99%</td>
</tr>
<tr>
<td>Community</td>
<td></td>
<td>275,000</td>
<td>278,000</td>
<td>101%</td>
<td>100%</td>
<td>100%</td>
<td>99%</td>
<td>99%</td>
</tr>
</tbody>
</table>

The Town of Bedford has made significant progress toward its 2020 goals. As of the end of 2017, the Town has met or exceeded its 2020 goals for Municipal emissions. The reduction in Municipal emissions has been achieved through various initiatives, including energy efficiency improvements at town facilities, increased use of renewable energy, and implementation of waste reduction programs.

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)
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

Phase I: Regional Planning

• Provide resources for all NYS regions to develop comprehensive 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
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

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
Category 1: Permitting

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

Category 2: Planning Case Study

Buffalo Green Code

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

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
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: