



Climate Smart Communities – Mid-Hudson Region

Prioritizing Sustainability Initiatives for the Town of Mamaroneck, NY

June 2013

Introduction

In 2012, the Town of Mamaroneck’s Sustainability Collaborative (Collaborative) was formed to “help guide the Town in developing and implementing a sustainability plan to reduce the energy and environmental costs to the Town, and to prepare for federal, state and local mandates, while minimizing the tax burden on residents, and businesses.” The Collaborative is comprised of internal and external stakeholders. One of their top priorities is to craft a sustainability plan.

An important step that the Town took in its sustainability planning efforts was to adopt the Climate Smart Communities (CSC) Pledge in 2009. The CSC program is a New York State initiative to help local communities reduce greenhouse gas (GHG) emissions, prepare for the effects of climate change, and save taxpayers money. The CSC program is designed to address 10 focus areas, or “pledge elements,” outlined in the CSC Pledge. To support communities that have taken the pledge, the New York State Energy Research and Development Authority (NYSERDA) offers technical assistance through the CSC Regional Coordinator Pilot Program. An in-person technical assistance consultation with VHB Engineering, Surveying and Landscape Architecture P.C. (VHB) was held on October 2, 2012. At this meeting, the Town requested VHB’s assistance in organizing, evaluating, and prioritizing candidate sustainability initiatives using objective criteria. This evaluation and prioritization process is a key stage of the overall sustainability planning process. A desired outcome for this project was to use this process to establish a framework for the Town to craft and adopt a sustainability plan.

Crafting a Sustainability Plan

Completing a climate action plan, or sustainability plan,¹ is an important part of the Climate Smart Communities Pledge as described in **Pledge Element 2: Set Goals, Inventory Emissions, Move to Action**. A strategic plan for sustainability is an essential tool for guiding Mamaroneck to take effective action. A sustainability plan will provide the Town with the framework needed to set specific goals and identify combinations of initiatives to achieve those goals. Having such a framework helps facilitate coordination across local government departments and community stakeholders when implementing initiatives from the plan.

The key steps in developing a climate action or sustainability plan are as follows:

1. Conduct a baseline assessment and inventory existing initiatives.
2. Identify goals and targets.
3. Identify potential initiatives to achieve those goals.

¹ While the Climate Smart Communities program references “climate action plans” specifically, a sustainability plan follows a similar process and includes the same components as a climate action plan, though may be more comprehensive than a plan solely focused on climate change mitigation.



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4. Evaluate the potential impact of those initiatives.
5. Prioritize initiatives for implementation.
6. Develop implementation plans.
7. Implement the actions.
8. Track progress, report, and reevaluate.

These steps are described in more detail in the *Climate Smart Communities Guide to Creating a Climate Action Plan (to be released in Summer 2013)*. The Town of Mamaroneck is already engaged in a number of these steps. The goal of this project is to help the Town connect its existing efforts to this planning process and provide some additional structure for future efforts.

The Town has already assessed its sustainability efforts to date. It has also begun to identify a number of initiatives that it is considering implementing. This technical assistance project has synthesized and documented the existing efforts and potential new initiatives, evaluated those initiatives for prioritization, and created a framework for implementation of the initiatives. This document outlines the process and results of that effort and recommendations for next steps.

Identifying and Evaluating Initiatives

Existing Initiatives

The Town of Mamaroneck has already embarked upon a number of sustainability initiatives in recent years throughout internal operations and the community as a whole. In 2011, the Town Board engaged a planning consultant to survey these existing sustainability initiatives and to propose new ones. The following is an overview of those existing initiatives as well as how they address each of the CSC Pledge Elements.

Energy

Addresses Pledge Element 3: Decrease Energy Demand for Local Government Operations

- Completed lighting retrofits in Town Center and Hommocks Ice Rink
- Installed occupancy sensors in Town Center bathrooms
- Implemented nighttime closures at several Town buildings
- Maxwell Avenue Highway Garage burns 60 percent waste oil for heat
- Upgraded 40 of 1,400 streetlights and parking signals to LED
- Have drafted an Energy Performance Contract for the Ice Rink (*in progress*)



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Green Fleet

Addresses Pledge Element 3: Decrease Energy Demand for Local Government Operations

- Adopted an anti-idling policy
- Converted two sanitation trucks to run on used vegetable oil. Oil is collected from dining establishments in the community.
- Replaced several Town vehicles with fuel-efficient vehicles and hybrids

Stormwater Management

Addresses Pledge Element 7: Plan for Adaptation to Unavoidable Climate Change

- Adopted an impermeable surface policy and a “no net increase in runoff” policy
- Planted native species at Duck Pond and along Sheldrake River
- Dredged Duck Pond and installed silt reduction mechanism as well as valve for lowering water level during flooding. *(Partially funded through a Westchester County grant)*

Addresses Pledge Element 10: Commit to an Evolving Process

- Joined Westchester County Flood Task Force
- Founded and continues participation in Long Island Sound Watershed Intermunicipal Council (LISWIC)
- Inserted media in 68 catch basins to remove floatables and chemical pollution from Long Island Sound *(Funded through Long Island Sound Futures Fund grant)*

Stakeholder Engagement and Education

Addresses Pledge Element 9: Inform and Inspire the Public

- Created and maintains a Town environment Facebook page with weekly updates
- Periodic resident mails and alerts regarding sustainability topics, policies, and events
- Monthly Supervisor’s column in local newspaper
- Held an anti-idling campaign in 2012 and continue to distribute anti-idling pamphlets
- Annual garbage and recycling information brochure sent to residents
- Implemented seasonal prohibition on gas leaf blowers

Waste Reduction

Addresses Pledge Element 5: Realize Benefits of Recycling and Other Climate Smart Solid Waste Management Practices)

- Adopted a policy requiring separation of recycling and other wastes
- Leave Leaves Alone demonstration to model mulching leaves rather than collecting them
- Community Yard Sale Event where residents could rent a space to sell used items
- Recycles asphalt



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- Recycles tires
- Considering “Pay As You Throw” model for garbage collection

Evaluating Proposed Initiatives

The evaluation process began by compiling all potential initiatives that had been identified to date by the Town and the Collaborative. Initiatives were compiled from the following sources:

- July 2012 Technical Memorandum prepared by Syrette Dym, AICP
- Priorities list provided to VHB by Town Staff
- Phone conversations with Town Staff on April 12 and April 26, 2013
- Email communications from Town staff with additional ideas from Collaborative members

VHB reviewed all the proposed initiatives, combined similar actions, and pulled all initiatives into a single synthesized list. In order to effectively evaluate the initiatives, each was written as a specific action and given a description. Some initiatives were made more specific, while others could be combined into a broader initiative. For example, “convert another garbage truck to run on 100% vegetable oil” became “increase the use of alternative fuels in municipal vehicles and equipment” to allow the Town to focus on a portfolio of vehicles and fuels rather than one fuel and vehicle. A list of a total of 22 initiatives with descriptions was provided to the Town for review and approval prior to moving forward on the formal evaluation.

Simultaneously, VHB drafted a list of evaluation criteria, with definitions of each criterion and description of how each would be scored. The criteria selected align with metrics and implementation details that are typically considered in the drafting and implementation of sustainability plans. The Town reviewed and approved the criteria and definitions to ensure they were consistent with the Town’s priorities.

Initiatives were evaluated for each of the criteria. Initiatives could score 1, 3, or 5 points based on achieving a “low, medium, or high” rating. The rating levels indicate how well an initiative fulfills each of the evaluation criteria. This framework is illustrated in the evaluation criteria in Table 1.



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Table 1: Evaluation Criteria

Criteria	Criteria Description	Rating Description		
		High (5 points)	Medium (3 points)	Low (1 point)
Addresses CSC Pledge Element(s)	The level to which an initiative addresses one or more of the CSC Pledge Elements	Directly addresses more than one Pledge Element.	Addresses one Pledge Element.	Does not directly address any of the Pledge Elements.
Funding Feasibility	The likelihood that there are funds available or financing options (i.e., internal or external funding sources) to cover the costs associated with implementing the initiative.	Specific funding source has been identified or funding in municipal budget is available.	Possible funding sources available, but not yet specifically identified.	Not likely to identify external funding source and internal funding for the initiative is not likely.
Energy Use Reduction Potential	Initiative is evaluated based on its potential to reduce energy consumption (or replace fossil fuel-based consumption with clean energy) when implemented. This evaluation is focused on the direct action and not any indirect benefit that might come out of it.	Implementation of initiative is certain to result in energy savings.	Implementation of initiative could result in energy savings, but the savings are not guaranteed due to external factors (i.e., <i>educational programs that require a change in behavior in order to realize savings</i>).	Will not produce energy savings or will increase energy demand.
Greenhouse Gas (GHG) Reduction Potential	Initiative is evaluated based on its potential to reduce GHGs. This evaluation focuses on the direct action and not any indirect benefit that could result.	Implementation of initiative is certain to reduce GHGs.	Implementation of initiative could result in GHG reduction, but not guaranteed to do external factors.	Will not reduce GHGs or will increase GHGs.
Cost Savings	Implementation of the initiative would result in net cost savings to the Town.	Implementation of this initiative will result in net cost savings	This initiative is cost neutral.	The costs to implement this initiative are greater than the expected cost savings.
Public Health Benefits	Initiative will benefit the health of municipal employees and general public where they live, work and play.	Multiple health benefits as a result of initiative (i.e., <i>benefits to more than one area, such as air quality, wellness/exercise, water quality</i>)	Health benefits are realized in one area as a result of initiative	No health benefits (or <i>negative impacts on health</i>)
Implementation Capacity	Level of effort that is needed to implement the specific action. This includes the knowledge and expertise available to implement the initiative.	Minimal effort needed to implement this initiative due to available internal ability and knowledge.	Will require significant internal staff time to implement.	Will require outside consultation and/or partnerships to implement this initiative.



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All initiatives were run through this evaluation process using an Excel spreadsheet, “Mamaroneck_Initiative_Evaluation-Implementation_Table,” which has been provided under separate cover. A red cell indicates a low score (1); a yellow cell indicates a medium score (3); and a green cell indicates a high score (5). The scores were then summed for each initiative to create the final total score. It is worth noting that this evaluation reflects how these initiatives would score at this time based on the best available information. As new resources or funding sources become available, some initiatives would score differently if evaluated again in the future.

A justification for the score for each criterion was provided with each initiative as well. For example, the initiative entitled “Adopt a Green Infrastructure Plan” scored 35 out of 35 possible points, the highest scored initiative. Table 2 captures the reasons why each criterion ranked “high.”

Table 2: Scoring for “Adopt a Green Infrastructure Plan”		
Criteria	What Must Be Fulfilled to Rank “High”	How this Initiative Addresses Each Criteria
Addresses CSC Pledge Element(s)	This initiative directly addresses more than one Pledge Element.	Adopting a green infrastructure plan addresses Pledge Elements 3 and 7.
Funding Feasibility	Specific funding sources have been identified or funding in municipal budget is available to implement this initiative.	The plan could be developed with internal resources and incorporated into existing planning efforts.
Energy Use Reduction Potential	Implementation of this initiative is certain to result in energy savings.	Energy reduction is likely due to reduced heat island effect as well as the reduced need to pump stormwater.
Greenhouse Gas (GHG) Emissions Reduction Potential	Implementation of initiative is certain to reduce GHGs.	GHG reductions will result from reduced energy use, and also because vegetation absorbs carbon dioxide.
Cost Savings	Implementation of this initiative will result in a net cost savings.	Green infrastructure will require some upfront investment. However, it will save energy costs and reduce long-term maintenance and equipment replacement costs, which will likely create a net savings.
Public Health Benefits	Multiple health benefits will result from implementation of this initiative.	Vegetation often improves water quality, air quality, and beautification in some instances.
Implementation Capacity	Minimal effort is needed to implement this initiative due to available internal ability and knowledge.	The plan may be developed with internal resources and incorporated into existing planning efforts. The plan can also build off of the numerous existing stormwater management efforts in the Town under the MS4 program.



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Results and Prioritization

The 22 sustainability initiatives scored anywhere from 17-35 points based on the evaluation process. Because the evaluation is based on giving high scores to the initiatives for criteria that are most important to the Town, those initiatives that scored highest should, in most cases, be prioritized for implementation. The six highest scored initiatives are presented below, though it will be for the Town to decide how many initiatives will be implemented in the short term. The initiative description, score, and score justification are provided in Table 3 for each of the top six initiatives.

Table 3: Score Justifications for Top Six Initiatives				
	Initiative Name	Initiative Description	Score	Justification
1	Adopt a Green Infrastructure Plan	Adopt a green infrastructure plan or incorporate green infrastructure elements into an existing plan such as a comprehensive plan. Green infrastructure uses vegetation and soil rather than grey infrastructure to absorb stormwater.	35	This initiative scored “high” for all evaluation criteria. A strength of this initiative is that it can be addressed with existing Town resources and incorporated into existing planning processes. Green infrastructure also provides numerous benefits of heat island reduction, energy savings, stormwater management, air and water quality improvements, and aesthetic improvements.
2	Upgrade Traffic Signals to LED	Replace existing traffic signals with LEDs.	31	While this initiative has a narrow scope, it scored high due to its feasibility and energy savings potential. The funding feasibility is “high” because upgrading traffic signals to LED can often be paid for through the Town budget and LEDs use approximately 80-90% less energy than conventional lights creating a payback in less than one to two years.
3	Adopt a Green Procurement Policy	Adopt a green procurement policy (or Environmental Preferable Purchasing - EPP) that specifies energy efficient and/or environmentally preferable standards for all equipment, building materials, office supplies, fuels, vehicles, food, and other Town purchases. Examples include requirements for post-consumer recycled paper and Energy Star rated equipment.	31	This initiative addresses two CSC Pledge Elements, and it will certainly reduce GHG emissions, energy use, and costs. In addition, it does not require any outside funding and there are numerous model policies available for the Town to use in drafting their own.
4	Pursue an Energy Performance Contract for Town Buildings	Enter into an energy performance contract for the Town Ice Rink and other buildings to identify and implement energy conservation measures (ECMs).	29	While this initiative requires time and effort on the part of Town staff and will likely require investment of upfront capital, energy savings achieved are guaranteed to pay back the costs of implementing the upgrades. This initiative reduces energy, saves money, reduces GHGs, and supports a green innovation economy.



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	Initiative Name	Initiative Description	Score	Justification
5	Adopt a Complete Streets Policy	Adopt a Complete Streets Policy, which ensures that the safety and mobility of all users is considered (e.g., pedestrians, bikers, and motorists) when doing any transportation-related planning or design.	27	This initiative received a medium to high rating for all criteria and can be highly beneficial for its ability to lay the foundation for future VMT reduction and multiple public health benefits. Model language and design guidelines are available to assist the Town in drafting, adopting, and implementing the policy, increasing its feasibility.
6	Adopt Green Building Codes for Residential and/or Commercial Construction	New York State allows for local adoption of building code as long as it is no less stringent than the current ECCNYS. The Town could pursue revision of its building code for residential and/or commercial construction to require more stringent energy efficiency or green building requirements (such as Energy Star or LEED).	27	This initiative is certain to yield GHG reductions, energy use reductions, and multiple public health benefits. Implementation capacity rated “low” because while green codes for residential and/or commercial construction can be adopted leveraging existing staff time and resources, it may require significant time and effort from internal staff to determine policy details and engagement with external partners or advisors to implement the code. Despite the implementation challenges, several communities in NY have been considering this type of initiative, so strategic partnerships or modeling policies based on others may be options.

It is important to keep in mind that evaluating initiatives through this process is not a perfect science. While it does create a useful structure for reviewing the benefits and challenges associated with each, there are a range of initiative types, including policies, plans, direct actions, and others, which makes it challenging to score all initiatives completely objectively and consistently. For this reason, the Town should keep in mind that just because an initiative did not score well through this process, it does not necessarily mean that the Town should rule it out as a priority. Initiatives that involve a study often scored “low” because the completion of an analysis itself does not produce the same direct benefits (e.g., GHG reduction potential, cost savings) as an initiative that involves equipment replacement, buildings, or infrastructure. However, initiatives that involve studies often create the foundation needed for other actions which do directly address the evaluation criteria.

For example, the initiative entitled “Conduct a greenhouse gas emissions inventory of government operations” scored 19 points. While the score reflects “low” prioritization in terms of addressing these specific scoring criteria, the Town will surely benefit from conducting a greenhouse gas emissions inventory of government operations. Conducting a GHG emissions inventory of government operations is an important step to identify the greatest sources of energy use and emissions within Town



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operations and will serve as a benchmark for measuring the impact of other initiatives and progress toward achieving goals. Through the inventory, the Town will also identify where the greatest opportunities are to reduce costs. For instance, it is not uncommon to also find inaccuracies in Town accounts and billing that could be corrected and immediately save the Town money. Conducting a GHG inventory is also important for addressing **Pledge Element 2: Set Goals, Inventory Emissions, Move to Action** of the Climate Smart Communities program. Examples of initiatives that did not score well, but that the Town may wish to pursue for a variety of other reasons (e.g., will create a foundation for implementation of other actions) are captured in Table 4.

Table 4: Additional Initiative Score Justifications		
Name of Initiative	Score	Justification
Conduct a Feasibility Study for Renewable Energy Generation on Municipally-owned Property	19	This initiative scored poorly primarily because the study itself does not directly result in cost savings and because implementation would require a technical consultant. However, a feasibility study is a critical precursor to implementation of renewable energy systems that will, in turn, produce fossil-fuel based energy reductions and GHG emission reductions. A feasibility study will ensure that the Town is pursuing the most appropriate technology on the most appropriate site(s).
Participate in Consortium(s) that is/are Active in the Various Areas of Sustainability	21	While this initiative does not score very high, the benefits of connecting with peers is invaluable. This initiative scored lower because there are no direct energy use or GHG emissions reduction benefits, nor any direct public health benefits. However, through networking activities, the Town may learn of initiatives that do directly achieve such benefits. The Town can also use such forums to share their own successes/best practices with others.
Complete a Sustainable Transportation Plan	17	Similar to a renewable energy feasibility study, the benefits of this initiative will result from actual implementation of the plan, not completion of the plan itself. A sustainable transportation plan will likely impact greenhouse gas emissions from the transportation sector and have strong public health benefits, but the plan itself will not achieve GHG emissions reductions or public health benefits. Crafting a sustainable transportation plan is the foundation for creating a meaningful portfolio of transportation initiatives.
Adopt a Native Plant Policy	21	This initiative scored low primarily because there are no direct energy use, GHG, or public health benefits; however, the use of native plants may provide other benefits such as stormwater management and beautification. While this initiative scored relatively low, it is easy to implement with minimal effort on behalf of the Town and would formalize native planting efforts into a standard policy instead of on a project by project basis.



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Implementation Table

Once the Town has evaluated its potential sustainability initiatives, it will need to develop a plan for implementation. To help the Town move from prioritization of sustainability initiatives to implementation, VHB created an implementation table template in the attached workbook, “Mamaroneck_Initiative_Evaluation-Implementation_Table.” The second tab of the workbook, entitled “Sample Implementation Table,” includes a few examples of how it could be used for a specific initiative, though the Town will want to review the categories, add or remove any, and apply more specific definitions for each topic. For example, “cost to implement” is only listed as “low, medium, or high.” The Town will want to define what cost ranges are considered low, medium, or high. The “Time to Implement” category will also require definitions for what the Town considers to be “short term” vs. “long term.” The implementation table will help the Town to craft implementation plans for each initiative and guide them to move from planning to action.

Next Steps

As discussed earlier in this document, this evaluation and prioritization process is just one of several stages in the sustainability planning process. This has been a useful exercise of synthesizing and documenting existing efforts, potential initiatives, evaluating the benefits of those initiatives, and setting the framework for implementation of prioritized initiatives. The Town should use this exercise as a launching pad for developing a formal sustainability plan.

As a reminder, the key steps in developing a sustainability plan are as follows:

1. Conduct a baseline assessment and inventory existing initiatives.
 - a. The Town has begun this, but would benefit from completing a greenhouse gas inventory and baseline energy assessment to aid in identifying goals and targets.
2. Identify goals and targets.
 - a. Identifying goals and specific targets will give purpose to the plan and guide the selection and prioritization of initiatives.
3. Identify potential initiatives to achieve those goals.
 - a. The Town has already made great strides on this, especially through this exercise. The Town can continue to identify more initiatives and should solicit ideas from partners and community stakeholders.
4. Evaluate the potential impact of those initiatives.
 - a. The Town now has a method by which it can evaluate its potential initiatives. Again, the Town can adjust evaluation and scoring criteria as priorities may change in the future.
5. Prioritize initiatives for implementation.



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- a. Use the process established for this project, and link to whatever goals and targets are established in prioritizing initiatives for implementation.
6. Develop an implementation plan.
 - a. Use the template provided, and adapt it as needed, to guide the Town in developing implementation plans. The goals, initiatives, and implementation plans should be documented in a formally adopted, written plan, to give more authority to its contents.
7. Implement the actions.
 - a. Use the implementation plans, including developing partnerships with essential stakeholder, to put the plan into action.
8. Track progress, report, and reevaluate.
 - a. Establish metrics to track progress on achieving goals and targets. Report regularly on this progress to internal staff, stakeholder, and the public. Solicit feedback and reevaluate potential new goals, targets, or strategies for achieving them.

Funding Resources

In the Implementation Table in the final sustainability plan, the Town will identify internal and external funding sources for each initiative. The following funding opportunities may align well with the Town's sustainability initiatives.

- Waste reduction, recycling, and hazardous waste (this opportunity may be well suited for the initiative entitled "Place Garbage and Recycling Bins at all Conservation Areas"):
<http://www.dec.ny.gov/pubs/4776.html>
- Alternative fuels (this opportunity may be well suited for the initiative entitled "Increase the Use of Alternative Fuels in Municipal Vehicles and Equipment"):
http://www1.eere.energy.gov/cleancities/financial_opps.html
- Energy efficiency, technical evaluations, process improvement analysis, energy master plans, retro-commissioning, and development of peak load curtailment plans (PLCPs) as well as combined heat & power (CHP) projects (this opportunity may be well suited for energy efficiency initiatives):
<http://www.nyserda.ny.gov//sitecore/content/Home/BusinessAreas/Energy-Efficiency-and-Renewable-Programs/Commercial-and-Industrial/CI-Programs/FlexTech-Program.aspx>
- Upgrades to heating and cooling systems, lighting, motors, commercial refrigeration, Monitoring-Based Commissioning (MBCx) and controls (this opportunity may be well suited for any HVAC and lighting upgrade initiatives): <http://www.nyserda.ny.gov/BusinessAreas/Energy-Efficiency-and-Renewable-Programs/Commercial-and-Industrial/CI-Programs/Existing-Facilities-Program.aspx>
- All NYSERDA funding opportunities: <http://www.nyserda.ny.gov/Funding-Opportunities/Current-Funding-Opportunities.aspx>
- New York Power Authority (NYPA) Energy Efficiency Programs for Public Entities:
<http://www.nypa.gov/services/esprograms.htm>