

# MID-HUDSON REGION CLIMATE SMART COMMUNITIES

## Year 1 Report

*Prepared for the*

**New York State**

**Energy Research & Development Authority**

*Prepared by*

 ***Engineering, Surveying and Landscape Architecture, P.C.***  
An Independent Contractor to NYSERDA

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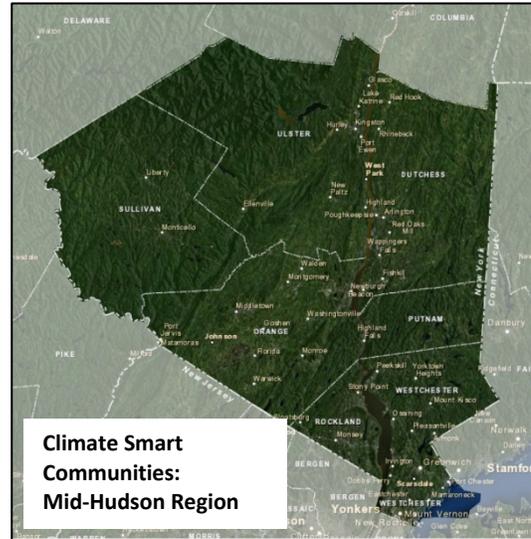


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Introduction

This was a very successful year for the Mid-Hudson Climate Smart Communities (CSC) Regional Coordinator Pilot Program. VHB worked collaboratively with the New York State Energy Research and Development Authority (NYSERDA), New York State Department of Environmental Conservation (NYSDEC), our subcontractor ICF International, and other partners to develop a regional greenhouse gas emissions inventory, conduct research about the existing 44 CSC participants, connect with CSC participants to determine their specific needs, and deliver top-notch resources and educational opportunities as well as one-on-one tailored assistance.



The following report outlines the achievements in Year 1 of the Regional Coordinator Pilot Program, a reflection on some of the challenges that were met while delivering technical assistance and a snapshot of VHB's plans for continuing to provide best-in-class technical assistance to the Climate Smart Communities (existing and new) in the Mid-Hudson Region. Please note: italicized words and phrases are considered deliverables and can be found in the folders associated with the final report. Copies of all referenced documents in this report are available upon request by contacting NYSERDA or New York State Department of Environmental Conservation (DEC).

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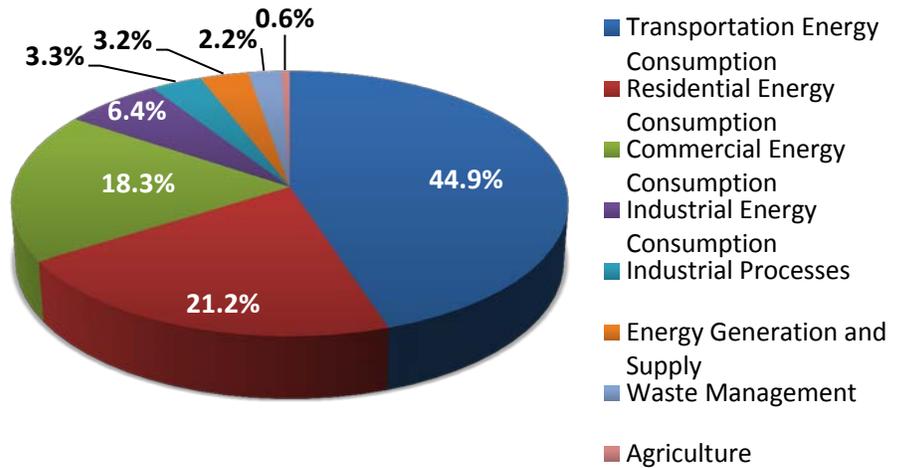
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### Task 1a: Conduct a Regional Greenhouse Gas Emissions Inventory

In December 2012, the VHB Team, in collaboration with ICF International, completed a regional greenhouse gas (GHG) emissions inventory, allocated to the municipal level, for the seven-county Mid-Hudson Valley Region (Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester Counties). The regional GHG emissions inventory provides both the Climate Smart Communities and Cleaner Greener

Figure 1 - 2010 GHG Emissions in the Mid-Hudson Region, per Sector (percentages of total)



Communities programs with a baseline against which to compare future inventories to show progress and reductions in GHG emissions. The regional GHG emissions inventory quantified the emissions in the region for the baseline year of 2010 from a variety of sectors including, but not limited to, residential, commercial, transportation, agricultural, and waste.

The results, as shown in Figure 1, indicate that the single largest source of GHG emissions is the energy consumption for transportation, which is responsible for 45 percent of regional emissions, or 11.9 million MTCO<sub>2</sub>e. Among transportation-related emissions, on-road vehicles (cars, trucks, buses, motorcycles) account for 86 percent of total transportation emissions. The second largest contributor is residential stationary energy combustion (such as home heating and lighting), which is responsible for 21 percent of emissions, or 5.6 million MTCO<sub>2</sub>e. The next largest contributor is commercial energy consumption (18 percent or 4.9 million MTCO<sub>2</sub>e). The remaining significant GHG contributors in the region are emissions related to industrial energy use, electricity generation and supply,<sup>1</sup> waste management, and industrial processes.

VHB has already distributed the data to 20 of the Climate Smart Communities in the Mid-Hudson Region, and intends to distribute the remaining data, along with direction on how to use it effectively at the local level, in the beginning of Year 2.

<sup>1</sup> At the county level, emissions from electricity generation are distributed among end use (commercial, residential, industrial energy consumption) and industrial process emissions are omitted because they are negligible.



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### Task 1b: Develop a Regional CSC Strategy and Inventory of Efforts

To begin our work in Year 1, VHB developed a comprehensive database of the existing actions that local governments are taking, or have identified, that address the Climate Smart Communities 10 Pledge Elements. The database is a fully searchable, complex system that allows us to document contact names and information, email correspondence, phone conversations, meetings and attendance at other events, partners, actions taken or identified, and relevant websites. The database helps VHB stay on top of existing efforts with all of the CSCs in the region as well as create on-demand reports on activity.

Using the database as the source, VHB created a *Community Profile* template (see Figure 2) that could report a local government’s progress in addressing the 10 Pledge Elements. Community Profiles can be updated and created upon request, but each local government received a copy prior to their In-Person Consultation and then a revised version after we confirmed any additional actions that had been completed during their consultation.

In July 2012, to further inform VHB’s work in Year 1, we conducted a *survey* of all of the Climate Smart Community participants. After 2.5 weeks, we received 22 responses out of 44 local governments – 50% response rate! The responses helped VHB to not only identify local needs and priorities, but to also create tools and trainings that addressed the overall results of the survey. Some of the highlights include:

**Actions Completed:**

- 55.6% completed a local government operations greenhouse gas emissions inventory
- 66.6% completed or in the process of creating a climate action plan

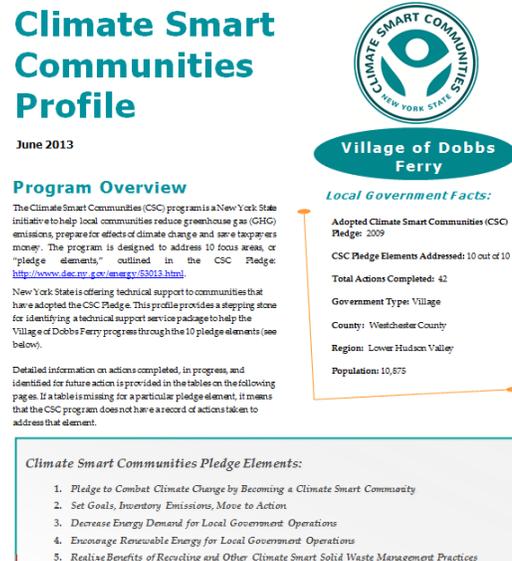
**Priorities:**

- 61.1% conduct a baseline climate change vulnerability assessment
- 66.7% create a climate adaptation plan

**Needs:**

- 62.5% assistance in identifying funding/financing resources
- 56.3% renewable energy and smart grid applications

Figure 2 – CSC Community Profile: Village of Dobbs Ferry





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Armed with our existing knowledge of the region, the research collected about local government activities and the survey results, VHB created a *Regional Climate Smart Communities Strategy*. The strategy mapped out how VHB and its partners would accomplish the three major tasks of this program over a three year period

- 1a: Conduct Regional Greenhouse Gas Emissions Inventory
- 1b: Develop a Regional CSC Strategy and Inventory of Existing Efforts
- 1c: Provide Regional CSC Outreach and Support

Using the interest generated from the survey and through specific invites to CSC participants in the Mid-Hudson region, VHB created a *Mid-Hudson Climate Smart Advisory Committee*. The charge of the Advisory Committee was to:

- Review and Approve the Regional CSC Strategy
- Assess Progress of Regional CSC Plan Implementation
- Serve as a CSC Network in the Lower Hudson Valley Region

The Advisory Committee was comprised of 13 Climate Smart Communities, NYSERDA and NYS DEC representatives. The Committee met September 24, 2012 in New Paltz and on May 22, 2013 at Norrie Point. Presentations were given at both of these meetings and members shared best practices and ideas amongst each other.

## Task 1c: Provide Regional CSC Outreach and Support

Task 1c was a large focus of VHB’s work in Year 1. This Task included: marketing and recruiting for the Climate Smart Communities Program; In-Person Consultations; developing and executing the Custom Service Strategies; facilitating the development of GHG Inventories; identifying anchor projects; and providing education and training.

### Market and Recruit Climate Smart Communities

From the very beginning, VHB worked to provide a brand for the Mid-Hudson CSC Region. We created a logo which would serve as a compliment to the statewide CSC logo (see above on the header). This logo is used in tandem with the CSC Program logo on electronic communication, agendas, and most recently on the Pocket Pledge. As shown in Figure 3, the Pocket Pledge is an accordion style, business card sized marketing piece that outlines the 10 Pledge Elements and what individual local governments

Figure 3 – Mid-Hudson CSC Pocket Pledge





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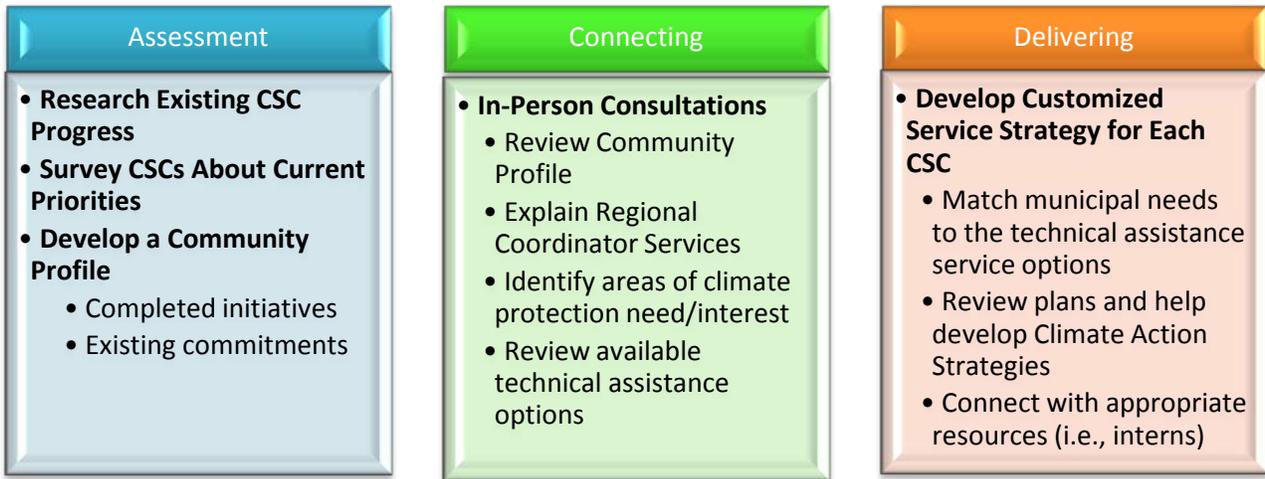
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are doing in the Mid-Hudson Region to address those elements. Contact information for the Regional Coordinators is included as well. VHB will use this at all of the events we attend and provide it to the CSC participants and potential recruits to communicate the program.

Local Climate Action Support

To properly execute the goals of the Climate Smart Communities Coordinator Pilot Program, VHB worked with existing CSC participants directly. This direct engagement process was broken down into three steps: 1) Community Assessment (completed in Task 1B); 2) Connect with the Communities; and 3) Deliver Customized Services. This framework allowed VHB to provide quality, relevant services that responded to the local government’s individual needs. Figure 4 outlines the direct engagement process that VHB used.

Figure 4 – VHB’s Direct Climate Smart Community Engagement Process



In Year 1, VHB connected with 60% of the Climate Smart Communities in the Mid-Hudson Region, or 26 local governments. This interaction, which began in September 2012, included:

**26 In-person Consultations with:**

*Kingston, New Rochelle, Peekskill, Yonkers, Orange County, Sullivan County, Ulster County, Bedford, Cortlandt, Mamaroneck (Town), New Castle, New Paltz (Town and Village), North Salem, Orangetown, Ossining (Town and Village), Pound Ridge, Red Hook (Town), Rhinebeck (Town and Village), Rosendale, Somers, Croton-on-Hudson, Dobbs Ferry, Irvington, and Larchmont.*



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In-Person Consultations consisted of one-on-one meetings with local elected officials, staff and volunteers who were working on the local government’s climate protection efforts. At these meetings, VHB staff had an interactive discussion which confirmed the contents of their Community Profile, discovered other actions that had been accomplished, and learned about local priorities and needs. From those discussions, VHB determined the type and delivery method of technical assistance that could be provided. After each In-Person Consultation, VHB updated the Community Profile and created a Custom Service Strategy that outlined the technical assistance we would deliver, who would deliver it and what the timeline was for completion. The local elected official signed the Strategy and assigned a local staff person or other liaison, and the project began. Table 1 outlines all of the Custom Service Strategies that were created. In total, VHB created *23 Custom Service Strategies and received 15 signed Strategies from local elected officials.*<sup>2</sup> *Six projects have been completed, and five are in progress. The final five projects should be completed by the end of summer 2013.*

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<sup>2</sup> The Town/Village of Rhinebeck’s Custom Service Strategy was combined.



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**Table 1 – Mid-Hudson Climate Smart Communities Custom Service Strategies<sup>1</sup>**

Local Government	Custom Service Strategy
<b>City of Kingston</b>	Assist the City with prioritizing their initiatives in the newly adopted Climate Action Plan through a facilitated workshop and implementation plan.
City of Peekskill	A report that outlines the evaluation criteria developed to screen the initiatives in the Climate Action Plan and highlights the top strategies the City can be working on.
<b>City of Yonkers</b>	A memo outlining the options for upgrade of City Hall's cooling system (from individual air units to a centralized system) including the benefits, challenges, costs, resources, and next steps.
Orange County	Climate resiliency checklist of potential vulnerabilities in Orange County and examples of the projects, services and operations that should be assessed further for projected climate impacts.
Sullivan County	1-2 page document/flyer that describes the Climate Smart Community program, tailored to reflect the various types, sizes, and interests of the communities in Sullivan County.
<b>Town of Bedford</b>	A Climate Smart Communities Action Report Card that measures the Town's progress and benefits of implementing actions outlined in Bedford's Climate Action Plan.
<b>Town of Cortlandt</b>	Develop a resource guide regarding energy performance contracting and managing the municipal/Energy Services Company (ESCO) relationship. This included case studies and other information on other municipalities that have used an energy performance contracting approach.
<b>Town of Mamaroneck</b>	Prioritization of sustainability activities identified by the Town's Sustainability Committee.
<b>Town of New Castle</b>	A 2-3 page resource guide summarizing the pertinent implementation details from other communities on the following types of projects: 1. Funding of LED streetlight conversion; 2. Example of a sustainability plan or chapter for a comparable community; 3. Creation of promotional materials for mulching program and/or Bag-It campaign.
Town/Village of New Paltz	Develop a training on how to identify and write grants.
Town of North Salem	A guide that can be used by departments to weigh the cost ranges and benefits of a variety of fuel efficient, low-emissions, and cost effective vehicles that can be procured to replace existing vehicles in the Town's fleet.
<b>Town of Orangetown</b>	Best practices on CNG and Pay-as-You-Throw Programs



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Table 1 – Mid-Hudson Climate Smart Communities Custom Service Strategies<sup>1</sup>, continued

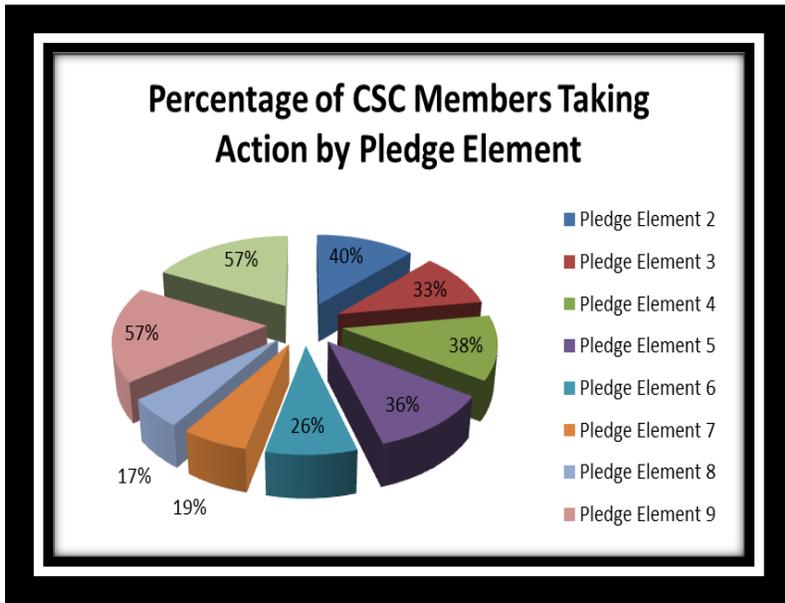
Local Government	Custom Service Strategy
Town of Ossining	A public relations strategy that includes existing and new techniques, existing and new events, proposed programs, and a schedule for promoting the Town and Village's climate and sustainability accomplishments.
Town of Red Hook	Develop recommendations for creating a Green Business Certification Program.
Town/Village of Rhinebeck	A greenhouse gas emissions inventory for local government operations for the Town/Village. Rhinebeck will serve as a Pilot community to test the local government operations emissions inventory tool.
Town of Rosendale	Develop strategy for conducting a deep retro-commissioning of their Recreation Center
Town of Somers	Develop a GHG Inventory Update Guide to Tracking Progress. This guidebook will explain how to efficiently update the GHG Inventory periodically to track progress in reducing greenhouse gas emissions.
Ulster County	A greenhouse gas emissions inventory for local government operations for the County. The County will serve as a Pilot to test the local government operations inventory tool
Village of Croton-on-Hudson	Create an Education and Outreach Campaign for recycling tailored for businesses.
Village of Dobbs Ferry	A guide that can be used by departments to weigh the cost ranges and benefits of a variety of fuel efficient, low-emissions, and cost effective vehicles that can be procured to replace existing vehicles in the Village's fleet.
Village of Irvington	Compilation of best practices on multi-family residential recycling campaigns and bulk item disposal programs. The final product will make recommendations, based on Irvington's resources and capacity, regarding which programs might work best for the Village.
Village of Larchmont	A financing strategy that aligns the energy efficiency and renewable energy priorities for the Village with financing options (existing and potential future) and the steps to secure these funding sources.

On the following page, VHB has included a collection of statistics about the program to-date, successful projects completed with Climate Smart Communities as part of their technical assistance, and some testimonials about the CSC Program.



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Dear Angela,

Your organizational skills and persuasive gifts for "can-do" inspired us all. Thank you.

I have been truly blessed with some amazing volunteers and staff who make possible our participation in bright, new initiatives.

On behalf of the Town Board I send very best wishes to you and all who are dedicated to Climate Smart Communities and sustainability programs.

Very truly yours,

Sue T. Crane  
Town Supervisor  
Town of Red Hook

**Existing Projects with Climate Smart Communities**

- Developing a Green Business Certification Program (Red Hook)
- Prioritizing or quantifying climate action plan measures (Kingston, Mamaroneck, Bedford)
- Guide to Energy Performance Contracts (Cortlandt)
- Utilizing the Local Government Operations Greenhouse Gas Emissions Tool (Ulster County and Rhinebeck)

"Climate Smart Communities has provided a great framework for the extensive sustainability efforts we've undertaken here in Dobbs Ferry. Municipal staff, elected officials and the whole community are successfully working together to reduce energy consumption and protect our environment. By adopting cost effective measures at the outset, we've have been able to complete sizable projects which have helped reduce energy use in municipal facilities by well over 20%. We have demonstrated that environmental sustainability and sound financial practice can go hand-in-hand. What's good for the environment is good for business."

Mayor Hartley Connett  
Village of Dobbs Ferry



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## Facilitate and Assist GHG Inventory Development

Based on feedback from the survey that local governments needed guidance and resources to complete their government operations inventory, VHB worked with ICF International to create the *Local Government Operations Greenhouse Gas Emissions Inventory Tool*. The tool is designed to help local governments in New York State evaluate the greenhouse gas reductions associated with various strategies for their local government operations. Understanding these reduction measures and their impacts on emission levels allows local governments to prioritize among the various options for inclusion in their local Climate Action Plan. The tool can help local governments begin preliminary decision-making of greenhouse gas reduction strategies before undertaking more detailed feasibility studies.

The tool helps users to develop a baseline municipal greenhouse gas inventory of local government operations, according to the Local Government Operations Protocol (LGOP). In Year 2 of the Regional Coordinator Pilot program, VHB and ICF will work with select local governments to pilot the tool and determine the appropriate guidance and assistance necessary to build local capacity to conduct government operations GHG inventories.

## Identify & Support Anchor Projects

To complement the Cleaner Greener Communities program and begin to indicate the synergies between the two programs, VHB conducted a thorough review of the initiatives from the Mid-Hudson Regional Sustainability Plan and aligned them with the Climate Smart Communities Pledge Elements. The resulting *Anchor Project spreadsheet* can be used by any local government to determine which initiatives from the Regional Sustainability Plan will help them address specific Pledge Elements.

## Education & Training

In 2012 and 2013, VHB delivered four webinars with over 120 attendees. The topics included:

*Vulnerability Assessments and Climate Adaptation Planning*

*Climate Action Planning*

*Planning for Renewable Energy*

*Regional Greenhouse Gas Emissions Inventory Results*

On May 22, 2013, VHB sponsored a half-day workshop at Norrie Point Environmental Center to serve as an educational and networking opportunity for Climate Smart Communities participants in the Mid-Hudson region. Attendees heard about the climate protection successes in Dobbs Ferry and how they use the Climate Smart Communities pledge as a roadmap for their work, and from Energize NY regarding their PACE program. The last part of the workshop allowed participants to



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discuss what their challenges are in addressing the Pledge Elements and how VHB can help them overcome some of those challenges through additional resources and technical assistance in Year 2.

## Reflections on Year 1

VHB experienced a couple of challenges in Year 1. We continue to revisit these challenges in an effort to be as successful as possible in engaging the Climate Smart Communities participants and provide them the technical assistance they need to advance their efforts. Some of the challenges we experienced include:

- **Finding the Right Person** – one challenge VHB experienced was in finding the right person to contact. Several of the CSC primary elected officials were not familiar with this the CSC pledge or the program and primary staff liaisons were not available as a back-up. In addition, elected officials and staff have come and gone in several of the local governments that are CSC participants. VHB has been able to introduce or reintroduce this program to many of these elected officials and staff liaisons, but we suspect that smaller communities with limited or no staff and new elected officials may not be returning calls due to their unfamiliarity with this program.
- **Working with Volunteers...**is a blessing and a challenge. While they are gung-ho and always willing to help, their capacity is limited, especially with regard to local government action. In several cases now, volunteers have been very excited to meet with us, but are unable to get approval to move forward or have not been informed of changing local priorities, which puts a halt on the project. We have now required that at least one municipal staff person serve as a liaison and they are cced on all electronic communication.
- **Jump-starting the Projects** – getting the Custom Service Strategies signed by the highest elected official was a challenge. Many of the local governments that delayed, or have still not signed, their strategies were affected by Super Storm Sandy. Other local governments were heavily involved in developing the Mid-Hudson Regional Sustainability Plan. In every case, the local government received an email (sometimes more) reminding them about the Custom Service Strategy, providing a timeline for needing a signature, and next steps. In the case of the nine that did not sign their Strategy, only three of the local governments did not respond to inquiries about the status of their Strategy. We assured them that they will still be eligible for services in Year 2 and that we looked forward to working with them.

## Looking Forward to Year 2

VHB has already started gearing up for Year 2 of the Regional Coordinator Pilot Program. Some of the highlights will include:

- Communicating availability of, and how to use the, Mid-Hudson Regional GHG Inventory data



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- Piloting the *Local Government Operations Greenhouse Gas Emissions Inventory Tool* broadly across the Mid-Hudson Region
- Recruiting 10 new Climate Smart Communities
- Engaging the existing Climate Smart Communities through a Website, Facebook, Twitter, LinkedIn
- Conducting a follow up survey to determine the changing needs of the CSC participants
- Updating the Community Profiles
- Conducting In-Person Consultations to build on Year 1 priorities
- Organizing a Climate Smart Communities Conference

We look forward to another successful year working in partnership with NYSERDA and NYSDEC to provide much needed climate protection and sustainability technical assistance and guidance to the local governments in the Mid-Hudson Region.