

Village of Rhinebeck

Annual Climate Progress Report 2021

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INTRODUCTION

Here we are again in our Groundhog Day COVID world. And let's not forget, the climate crisis continues to worsen, with some mixed progress from 2021's COP26 global summit. Because the COVID-19 pandemic continued on throughout 2021, our ability to interact with the public here in our small Village was still hampered. However, the CSC Task Force drilled down into subcommittees and stayed the course with important local climate projects. We need to do our part to draw down emissions and prepare for the now inevitable impacts of climate change. Our leadership here in the Hudson Valley can create models to share with communities elsewhere.

2020/2021's pandemic impacted the Rhinebeck housing market, and a Town tax reassessment and now inflation has residents concerned about their financial future. At the same time, Federal passage of infrastructure bills, the American Rescue funds, and NY State's continued scoping of the Climate Leadership and Community Protection Act, which passed in 2019, gives hope for funding and expanded technical support at the intersection of climate and infrastructure work. We should be mindful to leverage any funds we have access to for the benefit of all, and especially the most vulnerable in our community.

With my election to the Village Board of Trustees in September 2020 (the election was delayed by six months due to COVID-19), I've made the implementation of Climate Smart actions a priority and have looked for opportunities to work with fellow board members to dovetail climate goals with their projects. A truly supportive Board and proactive Mayor Bassett have created a situation where climate can be part of every decision.

Looking at 2021 through the NY Climate Smart Communities lens, our subcommittees worked on hefty projects such as the Natural Resources Inventory and a Composting Feasibility Study. These and other actions documented here, lay out our path towards silver certification status. Filing for silver is still a ways off, as we undertake larger projects and our participation in CAPI continues to be delayed because of COVID-19.

OUR PEOPLE POWER

Our volunteers and the structure of our work

We have passionate and knowledgeable members of our community who volunteer their time to our climate and environment work—truly inspiring. We also continued to grow our relationship with Marist College, now not only with the Environmental Science and Policy program but also with their Computer Engineering department. We also enjoy a lot of overlap with the Village Tree Commission.

To clarify: the Climate Smart Communities program is a NY State program requiring a municipality to work within their own level of government. That is why we have a Village CSC Task Force. We hope the Town will pursue CSC, and we would eagerly collaborate with their Task Force.

The Joint Village/Town Environmental Committee has gone largely inactive. However, we on the Village side are collaborating with the Town's Conservation Advisory Board on our Joint Natural Resources Inventory.

Rhinebeck Village Climate Smart Community Task Force

Core active members:

Vanessa Bertozzi (Coordinator)

Mayor Gary Bassett

Mary Burns

Dorna Schroeter

Carli Fraccarolli

Katherine Killeffer

Scout Pronto Breslin

Jennifer Breslin

Michael Forlenza

Christopher Tavener

Corinna Borden

Our larger CSC Task Force moved to meeting quarterly, while our Compost Subcommittee met weekly and our NRI subcommittee met at least once a month.

2021 Progress

This chart shows the projects we're working on and their status as we work towards silver.

Project	Progress	CSC points
Bronze	Completed	131
Annual Progress Report	Completed	4
Followed by ~350 on social media Instagram & FB	Completed	3
Updates for CSC website	Completed	3
Sent monthly email newsletters (190 subscribers)	Completed	
Continued to plant trees and manage our urban forest	Completed	
Piloted salt brine /road salt reduction	Completed	
Environmentally Preferable Purchasing Policy	Completed	4
Green Infrastructure Project Feasibility Plan	Completed	2
Hosted CSC Public Events	Completed	3
LED Streetlights	Completed	8
Energy Code Enforcement Training	Completed	5
Composting Waste Water Treatment Plant sludge (innovative action?)	Completed	6
CAPI GHG inventory	Postponed (V&T)	16
CAPI Climate Action Plan	Postponed (V&T)	12
Compost Feasibility Study	Completed	4
Natural Resources Inventory	In progress	10
FlexTech Energy Assessment for Village Hall	In progress	10
Compost drop-off pilot	In progress	2
Banned spraying glyphosate on municipal property	Completed	
Install sensor/monitoring system in Landsman Kill w/Marist	Completed	
Riparian buffer plantings s/Marist & Trees for Tribes	Completed	2
Energy Benchmarking for Government Buildings Policy	Completed	2
Energy Benchmarking for Government Buildings Public Report	Planned 2022	2
Drinking water: Emergency Oil Spill Drill w/Coastguard	Postponed	
Fleet efficiency policy	Planned for 2022	3
Comprehensive Plan w/Sustainability Elements	Planned for 2022	18
(2020) Launched Energy Navigators	Completed	5

(2020) Installed EV charging stations in Muni lot	Completed	6
(2020) Resiliency Planning Tool	Completed	6
(2020) Climate Vulnerability Assessment	Completed	6
TOTAL CSC points path to silver		273

We earned 131 with bronze. We need to get to 300 for silver and we're working on 142 in progress, completed, or planned. We have yet to identify which projects would get us the additional 27 points needed to get to silver.

For a user-friendly summary of actions completed towards silver Climate Smart Communities filing, see this webpage:

www.climatesmartrhinebeck.org/our-silver-certification

For what we did for bronze:

www.climatesmartrhinebeck.org/our-bronze-certification

We've summarized 2021 projects below into themes:

Water, Energy, Resiliency, Reducing Waste & Emissions, and Policy.

WATER

To protect our drinking water and move towards a beneficial relationship with our watershed and ecosystem.

Hudson 7

Mayor Gary Bassett is Chair of this seven municipality consortium. Town Supervisor Elizabeth Spinzia is also a member. In addition to advocating for the protection of drinking water, the group works with other organizations on disaster management and Drinking Source Water Protection for the Seven Hudson Communities of Towns of Esopus, Hyde Park and Lloyd, the City and Town of Poughkeepsie, and the Town and Village of Rhinebeck where they review programs and policies to protect drinking water supplies.

Green Infrastructure

In a nutshell, green infrastructure means designing spaces with less impervious paved surfaces to instead allow plants and the soil to percolate stormwater before it reaches surface water (such as the Landsman Kill and Crystal Lake) and groundwater. The percolation process manages stormwater runoff to filter out sediment and pollutants that can cause damage to the ecosystem as well as physical impacts such as erosion and sedimentation. As a demonstration project for this new direction, the Village Board worked with Tighe and Bond on a feasibility study and

concept plan. The project, which has a phased plan, would run along S. Parsonage St and the Lions Mini Park. Such a highly trafficked stretch, with one of the Village's few green spaces, right on the way to the schools, represents a prime opportunity to engage with the school and community about these new green infrastructure and engineering practices and how this direction improves our natural systems. Other co-benefits, such as traffic calming and safer intersections, bolster the walkability and bikeability of this area. We've used this feasibility plan to apply for matching grants that were not approved.

Banned Spraying Glyphosate on Municipal Property

After a tip from a resident who saw dead plants, we looked into it and found that we needed to institute tighter controls over the use of herbicide/pesticides by our Village staff. Our new policy brings us up to code with DEC requirements to have only certified technicians using such chemicals and the use of flagging if on public land. The use of glyphosate is generally banned, unless as a last-resort to manage invasive plants, such as the Ailanthus, host to the invasive Spotted Lantern Fly. See our [Tree Commission webpage](#) for nature-based tips on how to avoid using dangerous chemicals on your own property.

Road Salt Reduction

In 2021, we tested out brining our streets in an attempt to reduce the amount and “bounce and scatter” of crystal salt entering our environment. While the Town has embraced the practice, they've been unwilling to sell us brine. The pilot did not work on the less traveled Village roads, which means it's not as cost effective for a full-scale investment in an inhouse brine solution. We will continue to experiment with reducing road salt: our Highway Department's new plow and truck will be able to reduce salt, and we may contract with Dave's Tree Service for brining services if the right storm presents itself.

ENERGY

To transition to a more efficient system with renewable sources.

Energy Benchmarking

The Village Board approved a resolution to do energy benchmarking. Eleanor Peck, our Clean Energy Communities point person, visited Village Hall to train Deputy Clerk Krissy Denu, Karen, and myself on the EPA's Energy Portfolio Manager. Krissy is inputting data and we should be able to provide public reports on our energy usage soon.

Flextech Energy Study

Spurred by concerns about indoor air quality and circulation in Village Hall during the COVID-19 pandemic, we looked into how to go about updating HVAC and energy efficiency projects. Tighe & Bond referred us to ME Engineering, based in Buffalo, who often works with clients on

FlexTech. This NY State program provides a 50% match on the cost to do a Level 2 ASHRAE energy audit. Completing this energy audit also earns us points towards our silver certification. At the time of writing this report, our FlexTech application has been approved by the state, and ME Engineering is commencing the study. Recommendations from the study will inform improvements to Village Hall, to better conserve energy, lower utility bills, and increase the health of the indoor environment for our staff and elected officials.

Energy Code Training

Our Code Enforcement Officer, Ken McLaughlin, partook in the NYSERDA approved training, earning us points for both Clean Energy Communities and our towards our silver CSC.

LED Streetlights

Trustee Lewit led the charge to buy back our approximately 243 streetlights and have them upgraded to LED cobra heads.

Solar

Village Hall's solar array continues to generate power. However, the dashboard visualizing power generation has been down. Mayor Bassett worked with the Town on an intermunicipal agreement to have a shared maintenance contract, based on the percentage share.

RESILIENCY

To use nature-based solutions to adapt to irreversible oncoming climate change impacts that are most relevant to Rhinebeck: flooding, heat, and degradation of biodiversity.

Natural Resources Inventory

The Village, along with the Town of Rhinebeck and Town of Hyde Park, are lucky to be receiving free Natural Resources Inventory services from the Hudson River Estuary Program and Cornell Cooperative Extension Dutchess County. The project will result in a Joint Rhinebeck Town and Village NRI, a set of 25 maps with an interpretive report. Typically, these projects are drawn upon in land use decision making, as with Planning Boards. Often, they lead to developing an Open Space Plan. In our case, the NRI will be a useful companion to our Comprehensive Plan update.

Study of the Landsman Kill

Our collaboration with Marist College students focuses on creating a predictive model to anticipate climate-induced more frequent and severe flooding on the Landsman Kill and Crystal

Lake, as well as projects to reduce flooding. The collaboration proceeded January through May 2021 and then also Fall semester. Our Spring semester work focused on Professor Feldman's environmental science and public policy students completing our [Trees for Tribs](#) planting. The computer programming and environmental science students focused on the installation of a sensor in the Landsman Kill behind the Village Highway Garage. In the Fall semester, Professor Chris Algozzine's computer science students installed the tipping bucket to measure precipitation and worked on gathering data through a machine-to-machine SIM and visualizing it on a web-based dashboard. Both semesters, the students presented to the Village Board.

Riparian Plantings

Our Trees for Tribs riparian planting with our Marist collaborators was finally completed, after being postponed due to COVID. The DEC provided 100 saplings and the students and Climate Smart Task Force volunteers planted them behind the Highway Garage. The planting's goal is to reduce flooding downstream, prevent erosion and provide shade to biodiversity living in and around the stream.

BIOBLITZ

Highschooler and member of our CSC Task Force, Scout Pronto led the charge to run Rhinebeck's first ever BIOBLITZ. Using an app, members of the public went out over the course of the September 25/26 weekend and documented every living creature they found. We shared the impressive results on our website and social media.

REDUCING WASTE & EMISSIONS

To drawdown our greenhouse gasses and take responsibility for our effluent and trash.

Bike/Walk to School Day & the Car Free Pledge

CSC Task Force volunteer Angela Basile and her son Sam organized biking and walking related public events this summer and fall. They hosted a booth at the [Starr Library's Bikapalooza](#), tabled at the [Rhinebeck Farmer's Market with nonprofit 511 Rideshare](#), and arranged for many kids to come out and walk and bike together —en critical masse—to school in September on International Car Free Day.

CAPI Dutchess

Both Town and Village were accepted as two of nine municipalities in Dutchess County to participate in a program led by Hudson Valley Regional Council and ICLEI. The goal of the program is to guide the cohort through a Greenhouse Gas Inventory process and create a climate action plan. Unfortunately, the project's funding was delayed by the COVID financial crisis, but it should be starting in 2022.

Composting Feasibility Study

Our Compost Subcommittee worked with RIT's P2i (New York's Pollution Prevention Institute), which offers free consulting to municipalities, to create a compost feasibility study. This report (very rich in detail) provided the research needed to launch our 2022 Compost Pilot. Our CSC Task Force and Compost Subcommittee members also had a fun time presenting an education booth about composting at the Rhinebeck Science Foundation's Discovery Festival.

Composting Pilot

In December of 2021, the Village Board unanimously approved a 100 household drop-off compost pilot, to be announced in the New Year and to commence food scrap collection with The Ozone in March 2022 and run for six months through August. The pilot is called *Village Compost: A Village of Rhinebeck Program*. The P2i feasibility study and our pilot lay the groundwork for DEC grants for municipal composting programs, deadline in July 2022. Meanwhile, Sue Sie of Dirty Gaia offered to donate an Aerobin 400 to the school district. We're waiting to hear if Chancellor teacher Chantel Collins will be approved to use it in conjunction with her school environmental club. The subcommittee also launched educational webpages delving into [food waste](#) and [organics management in general](#), with a [how-to compost](#) at home from Cecily Frazier, a Rhinebeck Village resident and Cornell Cooperative Extension Master Composter.

Waste Water Treatment Plant Sludge to Be Composted

In Fall of 2021, we knew that our hauler for our sludge would be up sh*t's creek, as it were, because the incinerator in Connecticut, where our sludge had been going, would soon no longer be accepting our waste. I added a clause to our RFP document encouraging haulers to bid to take our sludge to composting facilities. We are pleased to say we accepted a bid to have our sludge hauled to Denali, a biosolids composting facility in Hillburn, NY.

Fleet efficiency policy

Fall 2021, I attempted to put together a fleet efficiency policy that would serve as a plan for transitioning to electric vehicles. After Board feedback, I went back to the drawing board. The fact is that the Village doesn't own that many non-utility trucks. Heavy duty trucks that are not fossil fuel based are not on the market yet. The idea is that we'd be better positioned to phase our police vehicles to Teslas or the Mach E. Very soon, the Ford F150 electric pickup truck could be a great option for the other departments who need a lighter pickup truck. This project will be picked back up in 2022.

POLICY

Environmental Purchasing Policy

The Board voted to approve our revised Village procurement policy to include environmental requirements and considerations.

Comprehensive Plan Update with Sustainability Elements

This Fall, the Village Board voted to form a committee to start the process to update our comprehensive plan, which dates from 1993. Coming in handy will be the project we'd done with Bard CEP graduate student David Chernack: a mammoth review of all of the Village and Town's policies and comprehensive plans, resulting in the [Climate Comprehensive Review](#). This Comp Plan update project is just beginning so stay tuned for much more in 2022!

Towards a More Connected Future

While in 2020 we'd hoped the challenges of the COVID 19 pandemic would subside, it is becoming the "new normal". We must stay laser focused on being creative in how we push forward our transition to a more climate-friendly Rhinebeck Village. Our eyes have been opened to equity issues and we can't go back. Day to day, more people are feeling the effects of bizarre weather and feeling the anxiety of the news. Climate work can be a way for us to come together to work towards something positive. We have the solutions, we just need to come together to implement them.

Onward!