



2021 ANNUAL REPORT

WHAT IS CLIMATE SMART GARDINER?

Climate Smart Gardiner (CSG) is a member of the NYS Dept. of Environmental Conservation's (DEC) Climate Smart Communities Program, designed to help local municipalities reduce greenhouse gas emissions, promote a green economy, and adapt to climate change. Almost 1/2 of New York State is participating in this program. The Town Board passed a resolution on 1/9/18 to make us a Climate Smart Community and we formed an official Taskforce. In 2021, we became a Bronze Certified Climate Smart Community. This achievement demonstrates Gardiner's commitment to the environment and our future. It also gives us greater access to sustainable grants. Currently, due to COVID-19, we meet virtually every first Wednesday of the month from 7-9PM.

More information about our monthly meetings, climate action plan, and community activities can be found on our Facebook page: <https://www.facebook.com/climatesmartgardiner/> and on the Town of Gardiner website: <https://www.townofgardiner.org/climate-smart-gardiner-taskforce>.

CLIMATE SMART GARDINER TASKFORCE

Our Climate Smart Gardiner Taskforce consists of the following members:

Franco Carucci, Gardiner Town Board Liaison

Rebecca Carucci

Tara Hoey

Rick Irizarry

Jason Mayer, Coordinator

Kim Mayer

Steve Mazzuca

Suger Rowinski

Holly Shader

Mark Varian

Stephen Weir

WHAT IS OUR MISSION?

Through education, community-building, and measurable actions, Climate Smart Gardiner seeks to empower our town to reduce greenhouse gases, adapt to a changing climate, conserve energy, support a local green economy, preserve natural resources, and promote renewable energy sources, so we can be environmentally sustainable for future generations.

WHAT PROGRESS HAVE WE MADE ON “PRIORITY ACTIONS”?

The Climate Smart Communities Program has designated some climate smart actions as “priority actions.” (<https://climatesmart.ny.gov/actions-certification/getting-started/priority-actions/>). These actions are fundamental to facilitate the success of climate smart programs. They include assessments or policies that help communities plan for future climate action or establish municipalities as champions in emerging fields. Climate Smart Gardiner has made significant progress on the following priority actions:

- **Alternative-fuel Infrastructure (Completed)**

After we obtained a grant of over \$15,000 through the NYS DEC to install an electric vehicle charging station, the charger was installed and operational in June, 2020. The charging station is located in the Gardiner Library parking lot, with access to the Hudson Valley Rail Trail. Due to increased costs, customers were allotted 2 free hours of EV charging per day and then charged one dollar per hour for subsequent charging.

- **Government Operations Greenhouse Gas Inventory & Climate Action Plan (Completed)**

A government greenhouse gas inventory (GHG) accounts for the daily emissions of a municipality, including government buildings, water treatment, municipal vehicles, municipal outdoor lighting, and other sources. Through this accounting, a municipality can assess current GHG emissions and then plan relevant actions to reduce energy use, emissions, and costs.

Through participation in the Climate Action Plan Institute, offered through NYSERDA, we completed an inventory of Gardiner’s municipal greenhouse gas emissions in January, 2019. All municipal energy data was collected for the years 2015, 2016, and 2017, and the average of these three years was established as the baseline to compare with future GHG Emissions Inventories and measure progress toward the established emissions reduction targets. A revised government GHG inventory, including 2018, has been published on the Town of Gardiner website. (See *Gardiner Municipal GHG Inventory, 2015-2017, and 2018*, at <https://www.townofgardiner.org/climate-smart-gardiner-taskforce>). Additional GHG inventory data from 2019, 2020, and 2021 is being analyzed.

Gardiner’s climate action plan, completed in 2019, synthesized the results of municipal and community GHG inventories to plan for local climate action. Through these inventories, we identified baselines to set emissions reduction targets, and outlined actions that can be taken to achieve these goals. (See *Climate Action Plan, 2019*, at <https://www.townofgardiner.org/climate-smart-gardiner-taskforce>).

The Town has adopted the goal of reducing government GHG emissions 20% by 2022 over the average of 2015/2016/2017 levels. Further, the Town’s longer-term emissions reduction targets in the Climate Action Plan, modeled after the New York State’s Reforming the Energy Vision’s goals, include a 40% reduction in GHG emissions by 2030 and 80% by 2050. (<https://energyplan.ny.gov/Plans/2015.aspx>). *Results of Gardiner’s Municipal GHG Inventory*

1. The facilities with the three highest CO2 emissions were as follows, ranked from greatest to least: Highway Garage, Town Hall, and Street Lighting.
2. According to administrative function, the three highest CO2 emission areas, ranked from greatest to least, are as follows: Vehicle Fleet, Administration Facilities, and Streetlights/Traffic Signals.
3. GHG Emissions by energy type, ranked from greatest to least, were as follows: diesel, gasoline, electricity, fuel oil, and propane.
4. The average cost of fuel, ranked from greatest to least, was as follows: electricity, diesel, gasoline, fuel oil, and propane.

Gardiner's Municipal Climate Action Plan: Based on Gardiner's Municipal GHG Inventory, the Town prioritized the following municipal climate strategies and actions:

1. Electricity: Consider joining a CCA program. This will provide eligible municipal facilities with 100% renewable energy and GHG emissions produced by the Town's facilities will be reduced by 7%.
2. Energy Efficiency: Energy audits of buildings and subsequent energy conservation measures will result in cost and energy savings.
3. Fuel Oil: In future building construction and alterations, convert municipal building heat and air conditioning to ground and air source heat pumps.
4. LED Streetlight Conversion: This will result in significant cost savings as well as a 3% decrease in Government GHG emissions.
5. Solar: Consider local community distributed generation, such as community solar farms. Through solar farms, residential, commercial, and municipal customers can receive 100% renewable energy at a discounted cost.
6. Transportation: Consider transitioning to more efficient, including possibly hybrid and fully electric, equipment in the future. Currently, Town employees use their personal vehicles when they travel to conduct Town business. Purchase of a Town-owned hybrid or electric vehicle could save the Town money and reduce emissions from gas-driven vehicles.
7. Funding Sources: Consider NYSDEC and NYSERDA grant opportunities, such as Climate Smart Communities grants, Zero Emission Vehicle rebates, and Flextech cost share for municipal building energy audits.

- **Community Greenhouse Gas Inventory & Climate Action Plan (In Progress)**

Per the Climate Smart Communities Program, “a community GHG inventory is an accounting, analysis, and report of the GHG emissions resulting from transportation fuels, waste, energy usage in buildings, and other sources within a given geographic boundary.

Government operations typically account for less than three percent of a community’s emissions. It is therefore important to understand how the industries, businesses, schools, homes, and vehicles in the entire community are contributing to climate change. Community GHG inventories provide the data needed to set realistic goals and track progress toward reducing costs, energy use, and emissions. By identifying the largest sources of emissions in the community, GHG inventories help local governments focus policies and incentives on the most important sectors.”

(<https://climatesmart.ny.gov/actions-certification/actions/#open/action/7>)

In 2021, we joined ICLEI, a network of governments focused on sustainability. They provided us with coursework, tools and guidance to create Gardiner’s community GHG inventory, which is nearing completion. The results of this inventory will inform the recommendations for our community climate action plan.

- **Comprehensive Plan With Sustainability Elements (In Progress)**

“A comprehensive plan provides a vision for how a community wants to grow over a 10- to 20-year period and recommends steps for how to achieve that vision. As part of that vision, the comprehensive planning process offers an opportunity for communities to consider how to balance the three ‘Es’ of sustainability: environment, economy, and equity. Because moving toward greater sustainability is often in alignment with mitigating and adapting to climate change, the Climate Smart Communities (CSC) program encourages local governments to integrate sustainability into their comprehensive plans” (<https://climatesmart.ny.gov/actions-certification/actions/#open/action/66>).

The Gardiner Town Board is updating the Comprehensive Plan. We collaborated with their consultant and identified sustainability elements that have been incorporated in this plan. A working draft of the Comprehensive Plan is on the Town website (<https://www.townofgardiner.org/comprehensive-plan>).

- **Natural Resource Inventory (Completed)**

Gardiner’s Environmental Conservation Commission and Open Space Commission completed a Natural Resource Inventory (NRI) (<https://www.townofgardiner.org/natural-resources-inventory>). The NRI describes the Town of Gardiner’s fresh water, parks, natural habitats and scenic spaces. These resources are essential to ensure continued prosperity, quality of life and responsible growth for our town. The completed Town of Gardiner NRI is a series of maps, along with an accompanying report that contains narrative descriptions, supporting data tables, and recommendations. We helped to promote this project and hope to collaborate with the other town commissions to develop an NRI local law. This local law would make Gardiner’s NRI a foundation for land development.

- **Evaluate Policies for Climate Resilience (Completed)**

“Local government decision makers often have the greatest capacity to influence the resiliency of their communities to climate change. Typically, they are the first to respond to emergencies and they understand the physical and social characteristics of their communities. With climate change bringing more extreme weather, local decision makers have the responsibility to examine vulnerabilities and take action to protect community assets. Some strategies utilized in local plans and projects may help to build a community’s resilience to climate change, while others may fail to consider how climate change will affect their implementation. Sometimes slight modifications to existing policies or projects

can help a community more effectively prepare for climate change”
(<https://climatesmart.ny.gov/actions-certification/actions/#open/action/87>).

Through collaboration with the Cornell Cooperative Extension and use of the Climate Smart Resiliency Tool, Gardiner’s policies were assessed and recommendations to promote greater adaptation to climate change were developed.

WHAT DID CLIMATE SMART GARDINER ACHIEVE IN 2021?

Our 2019 Climate Action Plan guided many of the climate smart actions we undertook in 2021. Our progress for these actions is listed in the section “Energy & Renewables” below. We also completed other significant Climate Smart Communities actions, detailed in subsequent sections.

- **Energy & Renewables**

1. *Community Choice Aggregation (In Progress)*: Through Community Choice Aggregation (CCA), a municipality can source a clean energy supplier on behalf of their residents and aggregate their buying power, leading to discounted energy for residents. Residents can opt out anytime for free. In 2020, the Gardiner Town Board passed a CCA resolution, allowing the Town to consider a CCA administrator, who can help Gardiner broker a deal with clean energy suppliers and educate the public about the CCA process. The Town chose Joule Community Power as its administrator. In 2021, Joule provided 3 presentations to the public. These presentations helped to educate the public about CCA and offered a Q & A period. We also hoped to add a community solar opt-out option to our CCA program, where Gardiner residents would be able to take advantage of 10% off their electric bill. Unfortunately, the CCA pricing offered to Gardiner was not sufficiently competitive and we had to hold off on joining CCA in 2021. We are waiting on other municipalities to join our Joule CCA bloc and monitoring CCA pricing, so we can offer the best green deal to residents in the future.
2. *LED Streetlight Conversion (In Progress)*: We completed an energy and billing audit of current streetlights, and we are finalizing our LED streetlight conversion with NYPA and Central Hudson. Through this process we consulted with an expert on Dark Skies standards. Through an application of Dark Skies concepts, we can safely reduce light pollution and increase energy efficiency for our LED project.
3. *Solar Array at Landfill (In Progress)*: In 2017, the EPA produced a solar farm feasibility study with siting at the Gardiner landfill. Solar farms are a great way to generate local, renewable power. In 2021, we worked on an RFP to send out to potential developers and began discussions with other relevant stakeholders for this land.
4. *Fleet Inventory (Complete/Ongoing)*: In 2019, we completed a municipal fleet inventory. In 2021, we continued to maintain these records monthly to assess GHG emissions and published 2021 data on the Town of Gardiner website (<https://www.townofgardiner.org/climate-smart-gardiner-taskforce>).

- **Education & Outreach**

1. *Join a National/Regional Climate Program (Complete)*: Gardiner registered in the NYSERDA *Clean Energy Communities* program. Through this program, we can implement clean energy actions, save energy costs, create jobs, and improve the environment. This program provides tools, resources,

and technical assistance. In 2021, we completed the four necessary requisite climate smart actions to achieve a Clean Energy Community designation and receive \$5000 in grant money for green projects. The climate smart actions we completed for this program are as follows: LED Streetlight Conversion, CSC Certification, Energy Code Enforcement Training, and EV Charging Station. Before we submit for this designation and grant, we will complete a grant proposal for this money.

2. *Local Climate-action Website (Complete/Ongoing)*: We continued to update Climate Smart Gardiner's section of the Town of Gardiner website: <https://www.townofgardiner.org/climate-smart-gardiner-taskforce>. We included educational and event-based information for the public.
3. *Social Media Website (Complete/Ongoing)*: We continued to update our Climate Smart Gardiner Facebook page: <https://www.facebook.com/climatesmartgardiner/>. We included educational and event-based information for the public.
4. In collaboration with Gardiner's Parks & Rec, we had an Arbor Day celebration at Majestic Park. This event was funded through a \$1000 grant with the NYS Urban Forestry Council. It was attended by about 75 people, we planted trees, and residents learned about the history and importance of Arbor Day at this event.
5. We disseminated the Climate Smart Communities model and offered climate smart action consultation to other municipalities, including Plattekill, Rochester, Claverick, Lloyd, and others. Some of these municipalities became CSCs or are on-track to take the Climate Smart Communities pledge in 2022.
6. We partnered with Ulster County officials to showcase green vendors and educators at the annual Ulster County Fair.
7. We began submitting a quarterly summary to the *Gardiner Gazette* so residents are informed of our progress and volunteer opportunities.
8. We submitted a letter of support for the Town of Gardiner's NYS River Greenway Planning Grant, in preparation for a local Community Preservation Plan. This project will help preserve and protect our environment.
9. Two Gardiner residents participated in the "Mid-Hudson Regional Solar Mapping Project." Through this training, offered through The Mid-Hudson Regional Sustainability Coalition Energy Working Group, we can assess Gardiner land for solar array suitability, given electrical, agricultural, and environmental considerations.
10. We recruited one new member for our Climate Smart Gardiner Taskforce.
11. We continued to work with the *Stop Danskammer Coalition* to further advocacy efforts in opposition to the proposed Danskammer power plant expansion in Newburgh.
12. One of our Taskforce members completed the "Climate Reality Project" training, a global initiative that trains individuals to raise awareness and activate others to fight the climate crisis and seek climate solutions.

13. We completed an annual progress report for 2020. This report was shared with the Town Board and posted on the Town of Gardiner website.

- **Recycling & Land Use**

1. *Recycling Program for Public Places & Events (Complete/Ongoing)*: In 2018, we coordinated a recycling process for Gardiner's Majestic Park, where town residents donated garbage cans for the park, a local artist painted these cans, and a town resident picked up the bottles and cans; the proceeds from this current recycling project are donated to help children in need.
2. *Community Repair (Complete/Ongoing)*: We continue to promote and support the Gardiner Repair Café, held at the Gardiner Library. Through the Repair Café, local residents bring in their broken items to be mended, avoiding more garbage at the landfill.
3. We organized a Gardiner contingent for the annual Wallkill Riverkeeper Sweep in May, 2021. Local volunteers cleaned the Wallkill River by water and land, recycling some of the garbage we found. There were 9 project sites, 60 volunteers, 36 large bags of garbage, and 7,200 lbs. total. Some interesting items collected include a potty seat, 2 picnic tables, picket fence, hunting platform, 2 shopping carts, farm equipment, wire, and large plastic toys.

- **Increase Resilience to Climate Change**

Riparian Buffers (Complete/Ongoing): In 2021 we submitted and obtained a grant for the NYS DEC *Trees for Tribes Program*, designed to plant trees and shrubs along stream corridors to prevent erosion, increase flood water retention and protect water quality. We planted 300 trees and shrubs on the bank of the Wallkill River adjacent to the Gardiner landfill park. This program is designed to plant trees along stream corridors to prevent erosion, increase flood water retention and protect water quality. It was muddy, cold, and raining, but 51 volunteers came out.

- **Grants & Funding Sources**

1. Through the Gardiner Town Board, we obtained funding to join ICLEI, a global network of governments focused on sustainability. ICLEI has provide us with the tools and technical assistance to complete our local community GHG emissions inventory.
2. In collaboration with Gardiner's Parks & Rec, we had an Arbor Day celebration at Majestic Park. This event was funded through a \$1000 grant with the NYS Urban Forestry Council.

2021 CHALLENGES

- **COVID-19**

Due to Coronavirus, many community projects were canceled or postponed. However, we adapted and had our monthly CSG Taskforce meetings via teleconference. We also promoted online presentations and events to help the public learn about climate change.

WHAT'S NEXT IN 2022?

- Complete Gardiner's Community GHG Emissions Inventory & develop a Community Climate Action Plan
- Achieve Clean Energy Community status through NYSERDA *Clean Energy Communities Program*
- Obtain a grant for \$5000 through the *Clean Energy Communities Program*
- Convert Gardiner's streetlights to LEDs
- Implement CCA/Community Solar and bring renewable energy to Gardiner
- Work toward solar array at Gardiner landfill through collaboration with other relevant stakeholders
- Complete bylaws, orientation process, and ethics code for Climate Smart Gardiner Taskforce
- Develop a Natural Resource Inventory Local Law
- Develop sustainable pricing to maintain the EV charger
- Continue to maintain: Repair Café, Trees for Tribs event, Arbor Day, and Riverkeeper Sweep