2022 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 (CSC) 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. After the sunset of the two-year grant period in June, 2022, we began to charge customers $.35 per kWh, based on an internal analysis of funds necessary to keep the charger solvent.

  Additionally, we designated a Clean Energy Communities grant (see *Grants & Funding Sources* section for more details) to compensate the Town for charger-related expenses and provide funds for any necessary future charger maintenance.

- **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 municipal GHG inventory data from 2019 and 2020 has been analyzed as well

  Gardiner's climate action plan, completed in 2019, synthesized the results of this municipal GHG inventory, as well as community GHG inventory baseline data from the *2012 Mid-Hudson Regional GHG Emissions Inventory* (2010 baseline year), 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. Results on GHG emissions reductions will be updated as they are analyzed and become available.   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 CO_2 emissions were as follows, ranked from greatest to least: Highway Garage, Town Hall, and Street Lighting.

2. According to administrative function, the three highest CO_2 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 (Completed)**
  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. This analysis was completed and presented to the public and Town Board in September, 2022.

  Per the Gardiner community GHG inventory, the largest GHG contributor is "Transportation with 59% of emissions. The next largest contributor is Residential Energy (35%). Actions to reduce emissions in these sectors will be a key part of a climate action plan. Commercial Energy, Solid Waste, Wastewater, and Livestock were responsible for the balance of the emissions (less than 7%). Total greenhouse gas emissions were 35,498 metric tons of CO_2e." (See *Inventory of Community and Government Operations GHG Emissions* at https://www.townofgardiner.org/climate-smart-gardiner-taskforce)

- **Comprehensive Plan With Sustainability Elements (Completed)**
  "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 updated the Comprehensive Plan in May, 2022. We collaborated with their consultant and identified sustainability elements that have been incorporated in this plan. The sustainability elements incorporated in Gardiner's Comprehensive Plan are as follows: promote alternate modes of transportation, promote smart growth principles, conserve natural areas, promote a healthy & safe community, and foster equity. 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 2022?

Our 2019 Climate Action Plan guided many of the climate smart actions we undertook in 2022. 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. Unfortunately, the CCA pricing offered to Gardiner was not sufficiently competitive and we had to hold off on joining CCA in 2021. CCA also faced legal challenges which stalled CCA implementation in 2022.

     However, CCA has recently seemed more promising. Therefore, in 2022, Joule provided multiple presentations to the public on the benefits of CCA. These presentations helped to educate the public about CCA and offered a Q & A period. 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 (Tabled):* 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. In 2022 we had continued meetings with stakeholders and continued RFP development. Unfortunately, through legal guidance, it seems that it would be challenging to designate the landfill site as designated parkland and construct a solar array in the same area, so this project is tabled for the time being.

4. *Fleet Inventory (Complete/Ongoing):* In 2019, we completed a municipal fleet inventory. In 2022, we continued to maintain these records monthly to assess GHG emissions and the 2021 data is published 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. In 2022, we completed this grant and it was designated to compensate the Town for charger-related expenses and provide funds for any necessary future charger maintenance.

  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. *Climate Related Public Events (Complete/Ongoing):* In collaboration with Gardiner's Parks & Rec, we had our annual Arbor Day celebration at Town Hall. The trees and mulch were funded through an Ulster County Arbor Day grant. Lowe's, Rosendale Nursery and Bloom donated supplies and support.

     Residents planted trees, enjoyed live music/poetry, and learned about the history and importance of Arbor Day at this event.

We also partnered with Ulster County officials to create the *Climate Smart Solutions Center*, showcasing green educators at the annual Ulster County Fair. We also worked to make the Fair more green and sustainable.

Further, we tabled at the annual *Gardiner Day* event, providing educational information about the Climate Smart Communities Program and ways for residents to be more climate-smart in their own lives.

5. We disseminated the Climate Smart Communities model and offered climate smart action consultation to other municipalities, including Plattekill, Shawangunk, Marlboro, and others. Some of these municipalities are working to take the Climate Smart Communities pledge in 2023. We also provided guidance for other communities working on their Climate Action Plans through Hudson Valley Regional Council.

6. We participated in the *Ulster County Municipal Environmental & Climate Committee* Roundtable event, where we shared our progress and challenges with climate smart initiatives in our community.

7. We submitted a quarterly summary to the *Gardiner Gazette* so residents are informed of our progress and volunteer opportunities.

8. We created an internship opportunity and will supervise a SUNY New Paltz intern in the Spring semester of 2023. This intern will collaborate with us on Gardiner's Emergency Plan.

9. We continued to work with the *Stop Danskammer Coalition* to further advocacy efforts in opposition to the proposed Danskammer power plant expansion in Newburgh.

10. We publicized the *Group Purchase Program*, coordinated by Sustainable Hudson Valley, where residents can make renewable/green purchases at discounted rates.

11. We completed an annual progress report for 2021. 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. Local volunteers cleaned the Wallkill River by water and land, recycling some of the garbage we found. We had 4

canoe paddlers and 49 land volunteers. All told, they collected 2470 lbs. of garbage, including 27 tires and 24 bags of garbage.

4. *Conserve Natural Resources (Complete/Ongoing):* We supported Gardiner's Community Preservation Plan (CPP), dedicated to "preserving our town's open space, natural habitats, scenic views, farmland & agricultural resources and recreational areas, as well as improving our climate resiliency." The Community Preservation Fund, designed to support the goals of the CPP was passed on the November, 2022, ballot, providing a funding resource to protect Gardiner's natural resources.

- **Increase Resilience to Climate Change**
  Riparian Buffers (Complete/Ongoing): In 2022 we submitted and obtained a grant for the NYS DEC *Trees for Tribs Program*, designed to plant trees and shrubs along stream corridors to prevent erosion, increase flood water retention and protect water quality. In collaboration with the NYS DEC staff, local volunteers planted 370 trees and shrubs on the bank of the Wallkill River adjacent to Gardiner Park. This program is designed to plant trees along stream corridors to prevent erosion, increase flood water retention and protect water quality.

- **Grants & Funding Sources**
  1. Through the Gardiner Town Board, we obtained funding to join ICLEI, a global network of governments focused on sustainability. ICLEI provided 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 our annual Arbor Day celebration at Town Hall. The trees and mulch were funded through an Ulster County Arbor Day grant. Lowe's, Rosendale Nursery and Bloom donated supplies and support.
  3. 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. In 2022, we completed this grant and it was designated to compensate the Town for charger-related expenses and provide funds for any necessary future charger maintenance.

2022 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 2023?

- Develop a Community Climate Action Plan
- Convert Gardiner's streetlights to LEDs
- Implement CCA and bring renewable energy to Gardiner

- Complete bylaws, orientation process, and ethics code for Climate Smart Gardiner Taskforce
- Promote the 2016 Unified Solar Permit
- Work with SUNY New Paltz intern and Cornell Cooperative Extension to develop Gardiner's Emergency Plan
- Partner with Cornell Cooperative Extension to create a Disaster Preparedness Outreach Project
- Work to promote composting and "zero waste" at Gardiner Day, Ulster County Fair, and other events
- Continue to maintain: Repair Café, Trees for Tribs event, Arbor Day, and Riverkeeper Sweep
- Achieve Climate Smart Communities *Silver Certification* by 2026
- Partner with other town entities to develop the Natural Resources Inventory local law.