

Government Operations Climate Action Plan

Town of Newfield

A strategic management tool for reducing greenhouse gas emissions and mitigating climate change within municipal governance in the Town of Newfield

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Executive Summary

The Town of Newfield is concerned with climate change and its potential impacts. Burning fossil fuels (e.g., coal, oil, and natural gas) and other human activities have increased carbon dioxide and other heat-trapping greenhouse gases (GHGs) in the atmosphere. These GHGs are significant contributors to global climatic changes. To address the threats of climate change, the Town has created the following "Climate Action Plan." The plan outlines strategies for reducing the Town's greenhouse gas emissions.

The plan begins with an introduction to the Town of Newfield and an overview of climate change. An overview of the Town's climate actions, the plan's development, and its public outreach is also included in the introduction. A summary of the Town's GHG emissions inventory follows. Baseline goals for GHG emissions reductions were derived from the GHG Inventory. Action tables detail the implementation strategy the Town will take to reach their emission reduction goals. The Town has included its methods for tracking progress and potential partner organizations with their next steps. Following this planning document, the Newfield Climate Smart Communities Task Force will annually report progress on climate actions/goals and evaluate the plan's effectiveness. At any point of review the task force may amend or update the document and submit changes to the Town Board.

Introduction

The Town of Newfield is in the southwest corner of Tompkins County, bordered by the Town of Enfield and Ithaca to the north, and Danby to the east. Newfield is the most forested of the Towns in Tompkins County, home to the Connecticut Hill State Wildlife Management Area, Cliffside State Forest, Arnot Teaching and Research Forest, and Newfield State Forest.

Farming is the Town's main industry, although it has declined in recent years. During the Great Depression, the federal and state government bought thousands of acres of abandoned farmland in Newfield for conservation and reforestation, creating the Newfield State Forest and Tompkins County Forest. With increasing extreme weather events, the Town has been susceptible to flash floods and other environmental hazards that have led to threatened natural resources in parts of the municipality.

Climate Change

Climate encompasses the fundamental meteorological characteristics defining where we live. These are the long-term trends in seasonal weather patterns that, in turn, determine the species composition of our natural landscapes, waterways, and agricultural practices. Climate can also dictate business and recreational opportunities. Weather, by contrast, describes the day-to-day changes in meteorological conditions for a location.

Historically, while weather varied, climate rarely exceeded the norms expected within the climatic region. However, since the mid-20th century, the planet's average temperature has been rising as global warming increases unevenly. In addition, drought and rainfall patterns are changing at an unprecedented pace. These climatic changes have been largely attributed to burning fossil fuels (e.g., coal, oil, and natural gas) and other human activities that have increased the level of carbon dioxide and other heat-trapping greenhouse gases in the atmosphere.

There is increasing evidence of climate change; its impacts are beginning to cause major damage and devastation to communities across the globe and locally within New York State. The regional climate is increasingly moving towards extremes and the "new normal" is undefined. No longer can governance rely on past historical weather patterns to inform management decisions.

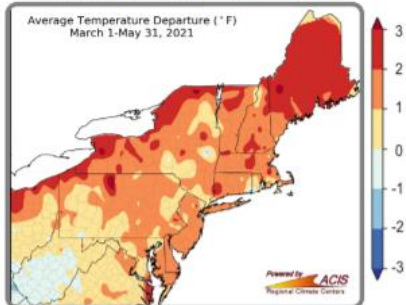
Previous Climate Characteristics and Recent Climate Change Impacts

The climate of the Town of Newfield and its previous seasonable weather patterns are similar to Tompkins County and the larger Northeast United States. New York's Climate Aid report (2011, 2014) describes the average climate of the region, from 1900 - 2012, as "Humid Continental" with the following attributes. The average annual precipitation for Tompkins County has been approximately 37 inches, most of which occurs between April and November. Historically, precipitation during the warm season has been typically characterized by relatively short periods of intense precipitation that produce substantial surface runoff and little recharge. Average summer temperatures have ranged from about 60 degrees Fahrenheit (°F) to 68°F, with average daily highs up to 80 degrees in July. The cool season (October through March) has had large, low-pressure weather systems that move northeastward along the Atlantic coast or up the eastern side of the Appalachian Mountains. Storms that formed in these conditions were normally characterized by prolonged periods of steady precipitation in the form of rain, snow, or ice. They tend to produce less surface runoff and more recharge than the summer storms because of their longer duration and occasionally result in snowmelt. Winter high temperatures have been between 31°F and 36°F.

The paragraph above details the previously seen climate norms from New York's Climate Aid report but this data as well as data gathered by other research groups, indicate these climate norms are changing. One change is seen in the average annual temperature rise by 2.4°F in New York State since 1970. In addition, average winter temperatures have increased by over 4.4°F. Climatic change has also resulted in increased precipitation in the winter, and less in the summer. The Northeast region is expecting a ~20 to 30% increase in winter precipitation in upcoming years. This winter precipitation may consist of less snow and more rain due to increases in temperature. All climatic changes have direct effects on the health of humans, animals, and plants in New York State.

Regional Climate Overview – March–May 2021

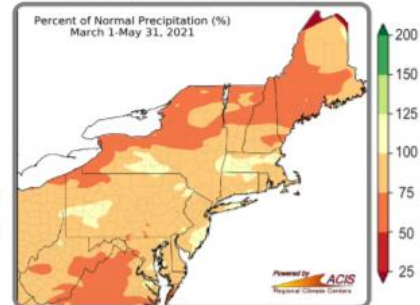
Temperature Departure from Normal (°F) March 1–May 31, 2021



Climate normals based on 1991–2020 data; rankings based on 1895–2021.

The Northeast had its **15th-warmest spring** at 1.3°F above normal. This spring was among the 20 warmest springs on record for 11 of the 12 Northeast states. It was the region's **16th-warmest March** at 3.3°F above normal. Nine states had one of their 20 warmest Marches on record. It was the region's **20th-warmest April** at 1.5°F above normal. Seven states had one of their 20 warmest Aprils on record. **May** was 0.7°F colder than normal, ranking in the **middle third** of all years.

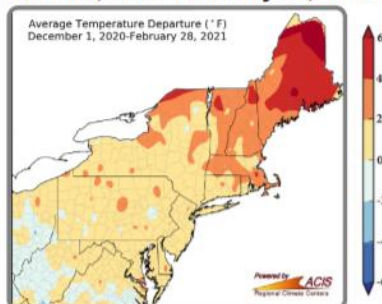
Precipitation Percent of Normal (%) March 1–May 31, 2021



The Northeast saw 81% of normal **spring** precipitation, ranking in the **driest third** of all years. Two states had one of their 20 driest springs on record. **March** precipitation was 71% of normal, in the **driest third** of all years. It was among the 20 driest Marches for four states. **April** precipitation was 86% of normal, in the **middle third** of all years. Delaware had its 20th-driest April. **May** precipitation was 85% of normal, in the **middle third** of all years. However, this May was among the 20 wettest Mays on record for two states.

Regional Climate Overview – December 2020–February 2021

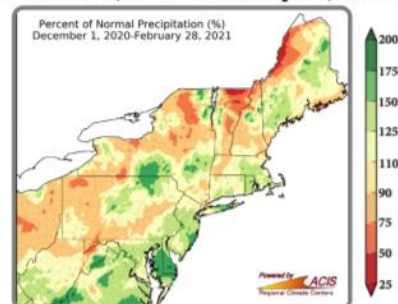
Temperature Departure from Normal (°F) December 1, 2020–February 28, 2021



Climate normals based on 1981–2010 data; rankings based on 1895–2021.

The Northeast had its **20th-warmest winter** at 1.8°F above normal. It ranked among the 20 warmest winters since 1895 for the six New England states. It was the **19th-warmest December** at 2.7°F above normal. Seven states had one of their 20 warmest Decembers on record. **January** was 3.9°F above normal, ranking in the **warmest third** of all years. It was among the 20 warmest Januaries for four states. **February** was 1.3°F below normal, ranking in the **middle third** of all years.

Precipitation Percent of Normal (%) December 1, 2020–February 28, 2021



The Northeast saw 104% of normal **winter** precipitation, ranking in the **middle third** of all years. It was among the 20 wettest winters for two states. The region had its **16th-wettest December** with 133% of normal. Seven states ranked this December among their 20 wettest. It was the region's **13th-driest January** with 66% of normal precipitation. Six states had one of their 20 driest Januaries. **February** precipitation was 110% of normal, in the **middle third** of all years. This February was among the 20 wettest for three states.

Figure 1 and 2: The above images are from the Northeast Regional Climate Center's report on Quarterly Climate Impacts and Outlook for the region. The top images are from March-May 2021. It shows that all regions are recording temperatures above the normal average for that location (on left) and that the northeast had an extremely dry spring with most areas receiving less precipitation than their location's normal average (on right). The bottom images are from December 2020 -February 2021. Again, it shows that most regions are recording temperatures above the normal average for that location (on left).

There is some variance in the precipitation seen across the northeast. With rising temperatures, more of this precipitation may have formed in rain, rather than traditional snowfall.

Past and Ongoing Climate Initiatives, Climate Action Plan Development, and Public Outreach

The Town of Newfield has divided their previous and ongoing climate initiatives into 5 major categories: **Land Use & Transportation, Built Environment, Waste and Recycling, Renewable Energy and Miscellaneous.**

Major Categories	Past and/or Ongoing Initiatives	Strategy/ Implementation Path
Land Use & Transportation	Inventory municipal fleet	The Town accountant generated a detailed inventory of all municipal vehicles; it will be updated periodically.
	Adopt a policy allowing government employees to telecommute to reduce commuter trips	The Public Employer Health Emergency Plan approved in 2021 is the basis for a policy on telecommuting to allow employees to work from home.
	Implement strategies that increase public transit ridership and alternative transport modes	TCAT Park and Ride has been established in the municipal parking lot behind the Town Hall. TCAT stop in front of Tioga State Bank has been improved with a bus shelter.
	Implement traffic calming measures (e.g. widen sidewalks, install roundabouts or speed tables)	Roundabout constructed in 2018 at Route 13 and Trumbull Corners Rd. for traffic calming/safety. Traffic calming measures such as reducing excess pavement area or adding stop signs at the intersection of Main St./Bridge St. are under consideration in the Newfield Hamlet planning process.
Built Environment	Conduct energy audits of local government buildings	NYSERDA energy audit was completed for the Town Hall buildings and town highway barn in Spring 2022.
	Upgrade interior lighting in government buildings	All interior lights were upgraded to LEDs.
	Install an Energy Management System (EMS) in government buildings	An ENERGY STAR Portfolio Manager account has been set up for all qualified government buildings.

	Convert streetlights to LED	Upgrades completed Fall 2022
	Upgrade outdoor lighting (non-streetlight/traffic signal) to more efficient technology and/or solar	Upgrades to LEDs are complete.
	Develop and adopt a comprehensive plan with sustainability elements	The Newfield Town Comprehensive Plan completed in 2013 includes consideration of sustainability related to: land use, transportation, open space, natural resources and energy conservation. Sustainability will continue to be addressed in future updates or amendments to the comprehensive plan.
	Adopt NY-Stretch	NY Stretch Energy Code was adopted 08/17/2021. The Town will consider updating the building energy code standards as the state of the practice and state-level codes evolve over time to further encourage efficient construction
	Train code enforcement officers in latest baseline Energy Code	Enforcement officer completed training in November 2021 and February 2023. Periodic training on energy codes will continue as needed.
	Use social media to inform the community about the progress of local government's efforts. Create and maintain a Climate Action Website	The Town of Newfield has a website and a Facebook page where climate smart updates are posted. https://newfieldny.org/government/committees/climate-smart-communities/
Waste & Recycling	Implement a Pay-As-You-Throw Program	Newfield residents and businesses pay private contractors for trash collection pickups. Trash is paid by the size and quantity.
	Offer Recycling to Residents	This is offered by Tompkins County Department of Recycling and Materials Management.
Renewable Energy	Hold green vendor fairs	Held at events like Old Homes Days
	Adopt a renewable energy ordinance to remove barriers to	Newfield adopted the Unified Solar Permit for small-scale residential solar. In addition, Newfield has laws in place addressing wind energy facilities and battery storage.

	renewable energy installations	There are no zoning-related barriers to renewable energy installation in Newfield.
Miscellaneous	Participate in Clean Energy Communities (CEC) Program	The Town of Newfield is a participating member of the CEC program. NYSERDA's CEC program provides the resources and funding to help municipalities find and implement clean energy solutions.
	Participate in Climate Smart Communities (CSC) Program	The Town of Newfield is a participating member of the CSC program. The CSC program guides communities in Climate Smart strategic planning. It encompasses a series of actions communities can take to mitigate and/or adapt to the changing climate

Table 1: The table above details the Town of Newfield's previous and ongoing climate initiatives. It lists each initiative's title, a short description, and assigns each to its corresponding action category. These categories will be used again later when describing the future action strategies.

History of Plan Development

This Climate Action Plan (CAP) is a strategy document that sets goals and outlines a set of initiatives that aim to reduce the Town of Newfield's greenhouse gas emissions to combat climate change. This plan was developed in partnership between the Town of Newfield and Cornell Cooperative Extension Tompkins County. Using the Town's Greenhouse Gas Inventory as the foundation, this plan outlines different strategies to mitigate and adapt to climate change. This action plan will be a tool enabling the Town of Newfield to mitigate climate risks and implement actions to adapt to the effects of climate-related stresses on the community, thereby improving community health and well-being.

Public Outreach

The Town of Newfield will keep residents informed through news posts and web-accessible documentation on the Town's website and/or Facebook page. The draft plan will be posted on the town website for public review, and a hearing will be provided for the public to provide feedback prior to adoption of the final plan.

The final plan will be submitted to the Town Board for review and approval.

Overview of Greenhouse Gas Inventory

Greenhouse gases are gases that trap heat in the Earth's atmosphere when they accumulate in high concentrations. Common greenhouse gases include carbon dioxide, methane, nitrous oxide, and

fluorinated gases, which are synthetic gases produced by industrial processes. These gases are released into the atmosphere in several ways, largely from human activity. Human generated sources come from energy-related activities (e.g., combustion of fossil fuels in the electric utility and transportation sectors), agriculture, land-use change, waste management and treatment activities, and various industrial processes. These gas emissions combine and change climatic conditions by causing the atmosphere to retain more energy from the sun than it normally would.

The Town of Newfield's 2019 Greenhouse Gas (GHG) Emissions Inventory is a separate detailed document listing specific sources of emission levels and their impacts. Newfield's detailed GHG Emissions Inventory can be found on the Town's website. https://newfieldny.org/wp-content/uploads/2022/05/GHG_Emissions_Inventory_Newfield-1.pdf. The document provides information to guide Newfield to prioritize actions when creating a local Climate Action Plan to mitigate the effect of these emissions.

Overall, greenhouse gas emissions from Town of Newfield's total GHG emissions from municipal activities was 283.23 million metric tons in CO₂. The largest contributor was the town's vehicle fleet of heavy trucks used for roadway repairs, snow plowing and other maintenance activities. Mobile combustion, for the town during 2019, emitted more than 4 times stationary combustion and electricity usage combined.

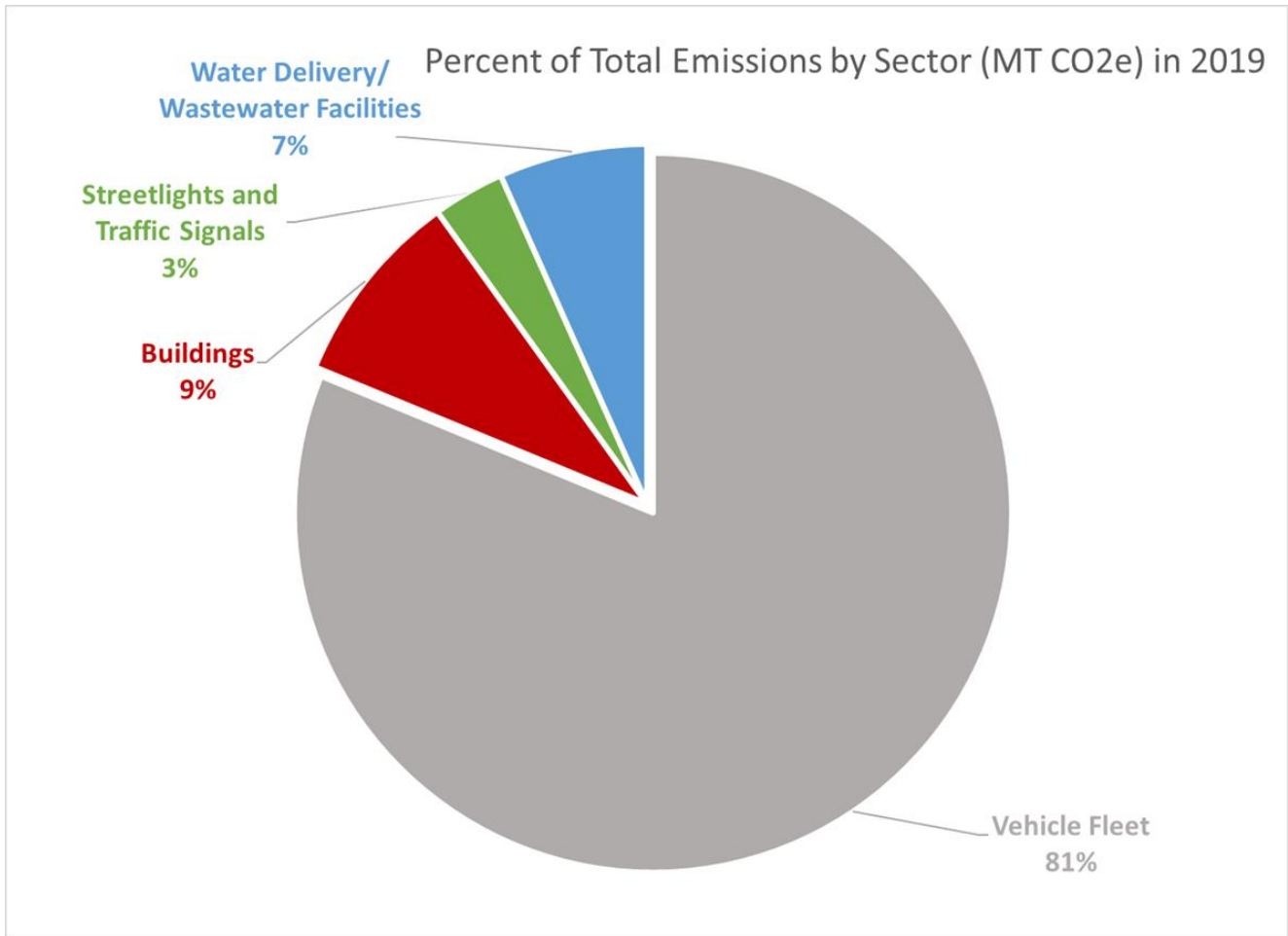


Figure 3: This figure shows the percentage of the Town of Newfield’s emissions from each of the municipal sectors. Vehicle Fleet is the largest, followed by Buildings, Water Delivery/ Wastewater Facilities and then Streetlights.

2019 GHG Emission Source (MT CO ₂ E)				
Year	Stationary Combustion	Electricity	Mobile Combustion	Total
2019	20	33.23	230	283.23

Table 2: This figure, from the Town’s GHG Inventory, shows the total emissions from each sector in 2019.

Climate Actions: Emissions Goals, Strategies, Tracking Mechanisms, and Next Steps

Emissions Reduction Target Year and Goals

- A Climate Action Plan Advisory Committee composed of municipal representatives and community leaders have discussed emission reduction goals and specific strategies for reaching them. By using information from the GHG inventory, a goal of 3% GHG emissions reduction per year has been set. In setting this goal, the following considerations were taken into account: The 2019 GHG Emissions Inventory was the most recent inventory on Newfield government operations
- The GHG emissions reduction goal will be periodically evaluated in conjunction with GHG Emissions Inventory. Ideally, the next inventory would be done on operations in 2024. At ~3% reduction per year, starting in 2023, the town can expect to reduce emissions by more than 20% by the year 2030. This would be a reduction of more than 57 million BTU in CO₂

These goals are aggressive and will help move the Town of Newfield towards the State's GHG emission reduction goals. For reference, New York State goals are 60% reduction from 1990 levels by 2030, and 85% reduction from 1990 levels by 2050.

Action Strategies:

Given the results of the GHG inventory and areas available for climate smart improvement, the Town of Newfield has divided their action strategies into 5 major categories: **Land Use & Transportation, Built Environment, Waste and Recycling, Renewable Energy and Miscellaneous**. Tables have been created by category and lists each action as well as potential tracking mechanisms.

In addition, in these tables we have provided our best estimates, based on previous results and planning, for the potential greenhouse gas emissions reductions (scaled low, medium, and high), as well as potential action time frame, and funding cost **Please note that these will be our best estimates. The actual emissions impact and timing could vary greatly based on circumstances and Town decisions.**

~ Tables are at end of document ~

Tracking Mechanisms

Reporting is a fundamental component of this Climate Action Plan (CAP) Tracking focuses attention periodically and allows the Town to consider progress against clear benchmarks and towards

goals. In addition, tracking mechanisms will help the Climate Taskforce to routinely update the Town Board. The Newfield CAP data will be stored in EnergyStar Portfolio Manager which will be updated annually. This storage location may also house evaluations for the cost and benefits associated with each action strategy. In addition, the Town will begin building a central archive for photos representing CAP projects and other information such as photos of areas impacted by climate change and/or remediation tactics which may be more qualitative than quantitative in nature.

Partner Organizations

The following list consists of partner organizations that the Town of Newfield may coordinate with to achieve their climate action goals.

- Cayuga Lake Watershed Intermunicipal Organization: <http://cayugawatershed.org/>
- Cornell Cooperative Extension of Tompkins County: <https://cals.cornell.edu/cornell-cooperative-extension>
- Environmental Management Council: <https://www2.tompkinscountyny.gov/emc>
- HeatSmart Tompkins: <https://www.solartompkins.org/>
- Newfield Public Library: <https://newfieldpubliclibrary.org>
- Newfield Public Schools: <https://www.newfieldschools.org>
- Solar Farms NY: <https://solarfarmsny.com/>
- Susan Christopherson Center for Community Planning: www.christophersoncenter.org
- Tompkins County Council of Governments: <https://www2.tompkinscountyny.gov/tccog>
- Water Resources Council: <https://www2.tompkinscountyny.gov/planning/committees-wrc>

Next Steps

The Town of Newfield will create an optimal timeline for implementing their planned strategic actions. Based on the decided timeline, the Town will begin working on completing actions while maintaining their tracking mechanisms. The taskforce will routinely report progress on climate actions/goals to the Town Board. On a yearly basis, the task force will review this action plan and

evaluate its effectiveness. At the point of review, the task force may amend or update the document then send those changes for approval by the Town Board.

Acknowledgements

Climate Smart Communities Task Force Coordinator – Kitty Gifford

Climate Smart Communities Task Force Members – Deb Eichten, Martha Gold, Heather McCarty, Casey Powers, Leo Tidd

Cornell Cooperative Extension Tompkins County - Rachel Zevin, Guillermo Metz, Energy Team Leader

Sources and Further Information

Northeast Regional Climate Center

<https://www.nrcc.cornell.edu/>

New York's Climate Aid report

<https://www.nyserda.ny.gov/-/media/Files/Publications/Research/Environmental/ClimAID/2014-ClimAid-Report.pdf>

United States Environmental Protection Agency: Greenhouse Gas Overview

<https://www.epa.gov/ghgemissions/overview-greenhouse-gases>

New York State Department of Environmental Conservation: Impacts of Climate Change in New York

<http://www.dec.ny.gov/energy/94702.html>

New York State Department of Environmental Conservation: Mitigation of Climate Change

<http://www.dec.ny.gov/energy/99223.html>

New York State Department of Environmental Conservation: Climate Change and Health

<http://www.dec.ny.gov/energy/68917.html>

U.S. Department of Energy Office of Energy Efficiency and Renewable Energy

<https://www.fueleconomy.gov/feg/evtech.shtml>

University of Michigan Center for Sustainable Systems

<http://css.umich.edu/factsheets/carbon-footprint-factsheet>

United States Environmental Protection Agency: Basic Information of Air Emissions Factors and Quantification

www.epa.gov/air-emissions-factors-and-quantification/basic-information-air-emissions-factors-and-quantification

Action Strategy Tables
Land Use & Transportation

Action Description	GHG Reductions	Timeframe	Funding	Progress Metrics
Adopt a vehicle fleet efficiency policy	Medium	Short: <1 Yrs.	\$	Adoption of fleet efficiency policy and vehicle replacement plan. # of vehicles in fleet % of fleet using alternative fuels % of fleet proposed for conversion to Hybrids & EV % of vehicles replaced/improved # of gallons of fuel consumed
Adopt an anti-idling policy for government vehicles	Medium	Medium: 1-4 Yrs.	\$	Adoption of anti-idling policy # estimate of hours spent idling per year # estimate of idling hours avoided per year
Replace traditional vehicles with Hybrid and EV vehicles	High	Long: 5< Yrs.	\$\$\$	# of vehicles by type and size % of fleet replaced # of gallons of fuel consumed
Incorporate green principles, commitments, or requirements into staff trainings	Low	Medium: 1-4 Yrs.	\$	# of attendees At staff training every year provide reminders (about our recycling policy, fleet efficiency policy, and any other relevant policy) and include in employee manual
Require consideration of green parking lot standards in the Site Plan Review Process	Medium	Medium: 1-4 Yrs.	\$	Update Site Plan Review law to incorporate green parking lot standards
Adopt a Complete Streets policy to encourage a transportation system that serves all users and modes	Medium	Medium: 1-4 Yrs.	\$	Adoption of Complete Streets Policy and incorporation of Complete Streets principles in the site plan review of relevant development proposals
Implement strategies that support bicycling and walking or create a bike share program	Medium	Medium: 1-4 Yrs.	\$\$	Develop specific recommendations for bike and pedestrian improvement priorities during the update of the 2013 comprehensive plan. # of bike-sharing programs or hubs (planned or completed) # of bicycle infrastructure installations # of miles of bicycle lanes or trails # of installations for improved pedestrian access

Install electric vehicle infrastructure on government property	High	Medium: 1-4 Yrs	\$\$	# of electric vehicle charging stations (planned or completed)
Adopt an anti-idling policy (community-wide or in key areas - schools or transit stations)	Medium	Short: <1 Yrs.	\$	Adoption of anti-idling policy # of gallons of fuel consumed % of idle time for vehicles
Create a “Buy Local/Buy Green” campaign to reduce vehicle miles traveled (VMT)	Medium	Medium: 1-4 Yrs.	\$	# vehicle miles traveled # of formal campaigns # of participating businesses
Incorporate smart growth principles into land-use policies and regulations -consider including in revised comprehensive plan. Resources: https://www.epa.gov/sites/default/files/2014-04/documents/this-is-smart-growth.pdf - https://www.epa.gov/smartgrowth/smart-growth-small-towns-and-rural-communities	Medium	Medium: 1-4 Yrs.	\$	# of smart growth projects
Create and promote local farmers' markets	Low	Medium: 1-4 Yrs.	\$\$	# of markets held # attendees # vendors

Table 3: The table above details the Town of Newfield’s planned climate actions regarding Land Use & Transportation. It lists each strategy’s title, its potential impact on greenhouse gas emissions (scaled low, medium and high), as well as potential time frame, funding costs and progress metrics.

Built Environment

Action Description	GHG Reductions	Timeframe	Funding	Progress Metrics
Upgrade HVAC equipment in government buildings	High	Medium: 1-4 Yrs	\$\$	# of HVAC units replaced # of kWh of electricity consumed (annually)

Install water efficient fixtures in government buildings	Medium	Medium: 1-4 Yrs	\$\$	# of gallons of water consumed (annually) # of water fixtures replaced
Upgrade building envelope in local government buildings	High	Medium: 1-4 Yrs	\$\$	# of building envelopes upgraded # of kWh of electricity consumed (annually)
Adopt a green building standard for local government buildings/facilities	Medium	Medium: 1-4 Yrs	\$	Adoption of green building policy # of government buildings and facilities
Build a new government building that meets green certification standards	Medium	Long: 5< Yrs	\$\$\$\$	# of certified government buildings
Incorporate energy efficiency and waste handling provisions in standard specifications and government contracts	Medium	Medium: 1-4 Yrs	\$	Adoption of energy efficiency and waste handling provisions # of contacts with green standard specifications
Implement an energy or GHG management software for government owned buildings	Medium	Medium: 1-4 Yrs	\$	# of energy/GHG management software installations % of building energy use captured (by equipment unit, floor, meter, whole building) # of kWh of electricity consumed (annually)
Create sustainable site design guidelines that are resource efficient (e.g., stormwater management, reduce heat-island effect, etc.)	Medium	Medium: 1-4 Yrs	\$	Adoption of sustainable site design guidelines as part of an update to the Town's Site Plan Review Law
Create and support an energy reduction campaign or challenge	Medium	Medium: 1-4 Yrs	\$	# of acres of town included # of participants (households, businesses)

Table 4: The table above details the Town of Newfield's planned climate actions regarding Built Environment. It lists each strategy's title, its potential impact on greenhouse gas emissions (scaled low, medium and high), as well as potential time frame, funding costs and progress metrics.

Waste and Recycling

Action Description	GHG Reductions	Timeframe	Funding	Progress Metrics
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Adopt a recycling strategy for public places & events (e.g., all public events required to have recycling bins)	Low	Short: <1	\$	Adoption of recycling policy for events on town property
Adopt an Environmentally Preferable Purchasing Policy	Medium	Medium: 1-4 Yrs	\$	Adoption of environmentally preferable purchasing policy
Incorporate waste handling provisions in standard specs and government contracts	Medium	Medium: 1-4 Yrs	\$	Adoption of energy efficiency and waste handling provisions # of contacts with green standard specifications
Incorporate green principles, commitments, or requirements into staff trainings	Low	Medium: 1-4 Yrs	\$	# of sustainability HR trainings # of attendees or certificates awarded
Adopt a Zero Waste Initiative Policy where everything is reused, and all materials are viewed as resources	High	Long: 5< Yrs	\$	Adoption of Zero Waste Initiative Policy lbs of waste collected
Adopt a Construction and Demolition Waste Reduction Program or Policy	Medium	Medium: 1-4 Yrs	\$\$	Adoption of demolition waste reduction policy # of projects with demolition recycling plans # of demolition permits issued
Provide Recycling Bins in Public Places	Low	Short: <1 Yrs	\$\$	# of recycling bins in public spaces
Create an educational campaign to encourage recycling, composting and reduce overall waste.	Low	Short: <1 Yrs.	\$	# of educational campaigns and # of participants
Create an Organics Management Plan for Town Operations	Medium	Medium: 1-4 Yrs.	\$\$	Adopt Organics Management Plan

Table 5: The table above details the Town of Newfield’s planned climate actions regarding Waste and Recycling. It lists each strategy’s title, its potential impact on greenhouse gas emissions (scaled low, medium and high), as well as potential time frame, funding costs and progress metrics.

Renewable Energy

Action Description	GHG Reductions	Timeframe	Funding	Progress Metrics
Adopt a green power purchase policy to ensure increasing local government	Medium	Medium: 1-4 Yrs.	\$\$\$	Adoption of green power purchase policy, resolution or law Creation of plan or implementation strategy

energy supplies come from renewables				
Require that new construction of local government buildings is “PV-Ready”	Medium	Medium: 1-4 Yrs.	\$\$	Adoption of PV-Ready policy # of PV-Ready buildings planned or constructed
Serve as a host site for a renewable energy installation and enter into a long-term service contract or power purchase agreement (PPA) For example, solar panels installed on a government building roof	High	Medium: 1-4 Yrs.	\$	System size/capacity kWh of electricity generated annually Reduction of GHG emissions
Incentivize renewable energy and energy efficiency projects For Example, Clean Energy Communities program, Community Campaigns, or waiving permit fees for residential solar installations.	Medium	Medium: 1-4 Yrs.	\$\$	# of installations as a result of incentives program.
Community Choice Aggregation	High	Medium: 1-4 Yrs.	\$\$	# of residents enrolled in 100% green CCA

Table 6: The table above details the Town of Newfield’s planned climate actions regarding Renewable Energy. It lists each strategy’s title, its potential impact on greenhouse gas emissions (scaled low, medium and high), as well as potential time frame, funding costs and progress metrics.

Miscellaneous

Action Description	GHG Reductions	Timeframe	Funding	Progress Metrics
Switch from gas lawn mowers and other maintenance equipment to electric.	Low	Medium: 1-4 Yrs.	\$\$	# of traditional fuel equipment switched to electric Decrease in annual emissions from maintenance activity
Plant trees on municipal properties for carbon storage	Low	Medium: 1-4 Yrs.	\$\$	# of trees planted and estimated carbon sequestration

Table 7: The table above details the Town of Newfield's planned climate actions regarding miscellaneous actions. It lists each strategy's title, its potential impact on greenhouse gas emissions (scaled low, medium and high), as well as potential time frame, funding costs and progress metrics.