TOWN OF NORTH HEMPSTEAD MUNICIPAL OPERATIONS **CLIMATE ACTION PLAN**

2023

TABLE OF CONTENTS

Executive Summary..... 3

Leadership Team..... 5

Section 1: Introduction..... 6

Section 2: Greenhouse Gas Inventory..... 8

Section 3: Greenhouse Gas Emissions Reduction Goal.....17

Section 4: Actions to Reduce Impacts of Climate Change.....18

Section 5: Summary Matrix of Proposed Actions..... 34

Section 6: Summary of Initiatives by Department.....39

Section 7: Greenhouse Gas Reduction Impact vs. Cost.....40

Section 8: Guide for Future..... 41

Appendix A: Emissions by Facility Buildings 2019.....43

References..... 44

EXECUTIVE SUMMARY

The Town of North Hempstead has made a commitment to address climate change by reducing greenhouse gas (GHG) emissions by 20% by 2030 within its municipal operations using 2019 as the baseline for its Greenhouse Gas Inventory. To complete this GHG inventory the Town's Planning Department used the US Environmental Protection Agency's "Local Greenhouse Gas Inventory Tool 2022: Government Operations Module." A total of 11,297 metric tons of CO2 equivalent (MT CO2e) was generated in 2019 from the following sectors: buildings/facilities heating, buildings/facilities electricity, streetlights electricity and vehicle use.

The Town will work towards achieving municipal GHG reductions and climate change adaptation by focusing on the following key categories of proposed measures and policies:

- Decreasing energy use and shifting to clean, renewable energy;
- Transportation and fleet;
- Resiliency, adaptation and natural solutions; and
- Materials and waste management.

The Town's Municipal Operations Climate Action Plan (CAP):

- Is an important step toward achieving New York State Climate Smart Communities Certification for the Town of North Hempstead;
- Provides background on the science and impacts of climate change;
- Presents the Town's baseline GHG emissions inventory and emissions reduction target;
- Outlines past and in-progress municipal and community focused actions for decreasing energy use and shifting to clean, renewable energy, transportation and fleet, resiliency, adaptation and natural solutions, and materials and waste management;
- Outlines potential future municipal operations actions and initiatives for decreasing energy use and greenhouse gas emissions through shifting to clean, renewable energy, increasing transportation and fleet efficiency, and decreasing waste;
- Outlines potential future municipal operations actions to increase resiliency, adaptation and natural solutions to cope with effects of climate change;
- Summarizes future municipal operations actions and initiatives by impact;
- Summarizes future municipal operations actions and initiatives by department;
- Provides a guide for adopting and implementing the North Hempstead Municipal Operations Climate Action Plan.

EXECUTIVE SUMMARY CONTINUED

Completion of the measures and projects outlined in this Municipal Operations CAP within the next seven years shall contribute to the Town's GHG emissions reduction goals set in this plan. The Town recognizes its actions are long term and that additional GHG reductions may be achieved based on new information and as the initiatives in this plan are undertaken and evaluated. Additionally, non-municipal actions and initiatives will be detailed in a future Community Climate Action Plan to be developed separately.

The Town is committed to assessing, researching, and implementing measures considered to be beneficial both in terms of GHG reductions as well as cost effectiveness. The determination of these projects and accomplishments will be dependent on feasibility and funding source availability.

Leadership Team

Town Supervisor **Jennifer DeSena**

Council Member, District 1 **Robert J. Troiano, Jr.**

Council Member, District 2 **Peter Zuckerman**

Council Member, District 3 **Dennis J. Walsh**

Council Member, District 4 **Veronica Lurvey**

Council Member, District 5 **David A. Adhami**

Council Member, District 6 **Mariann Dalimonte**

Town Clerk **Ragini Srivastava**

Receiver of Taxes **Charles Berman**

Elected Officials:

Jennifer DeSena, Supervisor
Mariann Dalimonte, Councilwoman
Veronica Lurvey, Councilwoman

Town Staff and Consultants:

Meagan Fastuca - Environmental Specialist; Planning and Environmental Protection
Michael Levine - Commissioner of Planning and Environmental Protection
Wes Sternberg - Planner; Planning and Environmental Protection
Marshah-Reaff Barrett - Commissioner of Solid Waste Management
Victor Thomas - Department of Public Works
Eileen Kraneberg - Executive Assistant to the Parks Commissioner
Joseph Canzoneri Jr. - Plans Examiner, Building Department
Mitch Pitnick - Town Board Department
Mindy Germain - Project Consultant, Eco Leap, LLC
Sarah Oral-PE - LEED AP BD +C, Civil Engineering Director Cameron Engineering & Associates, LLP

Climate Smart Communities Task Force Members:

Harriet Becker
Jean Celender
Stephen Cipot
Patrick Farrell
Jael Ferguson
Carol Frank
Patricia Katz
Rosemary Mascali

1. Introduction

The Town of North Hempstead's Municipal Operations Climate Action Plan provides an overview of the Town's efforts in locally reducing greenhouse gas (GHG) emissions, advancing energy saving measures and adapting to the changing climate, as well as other sustainability initiatives in the Town's own operations and facilities. This plan includes actions related to activities on Town property such as in its buildings, landscapes, parking lots, and Town owned streetlights and use of its fleet in and around the Town. This effort is part of the New York State Climate Smart Communities (CSC) program. This will ultimately assist the Town in reducing its impact on climate change.

1.1 Significance of Climate Change

The Town of North Hempstead recognizes the detrimental impacts of climate change on our residents and the natural environment, including sea level rise, more intense weather and flooding, higher temperatures and more frequent droughts (1). Supervisor DeSena and the Town Board are committed to implementing policies to reduce the Town's carbon footprint in its own operations, as well as to assist community members in their sustainability efforts through education, legislation, and other measures.

Greenhouse gas (GHG) emissions from human activity are causing profound changes in climate and weather, the consequences of which pose risks to the future health, well-being, and prosperity of our community. The sixth assessment report of the Intergovernmental Panel on Climate Change (August 9, 2021) states, "Global warming of 1.5°C and 2°C will be exceeded during the 21st century unless deep reductions in carbon dioxide (CO2) and other greenhouse gas emissions occur in the coming decades (2)."

The geography of North Hempstead will influence the impacts of climate change. The Town occupies 58 square miles. Its western border is roughly 14.5 miles from Manhattan. It is bounded on the north by the Long Island Sound, to the south by the Town of Hempstead, to the west by the borough of Queens, and to the east by the Town of Oyster Bay. Its northern land boundaries are extensively arranged along Little Neck Bay, Manhasset Bay, and Hempstead Harbor. While the entire Town will see temperature and precipitation changes, the Town's coastal communities face further risks of sea level rise, coastal flooding and coastal storms that will get worse as the sea rises.

The Town is dedicated to helping New York State reach its goals outlined in the Climate Leadership and Community Protection Act (Climate Act). The Climate Act's mission is to reduce New York State's carbon footprint, make communities more resilient, and adapt to a changing climate, through thoughtful planning and collaboration. These efforts will also improve NY's economy with well-paying clean energy jobs, new industries, and business opportunities, while improving the health and quality of life for all New York families and communities. Creating a green economy also means spending less on fossil fuels and keeping our energy dollars in the local economy. Targets of the Climate Act include (3):

- 85% reduction in GHG emissions by 2050
- 100% zero-emission electricity by 2040
- 70% renewable energy by 2030
- 9,000 MW of offshore wind by 2035
- 3,000 MW of energy storage by 2030
- 6,000 MW of solar by 2025
- 22 million tons of carbon reduction through energy efficiency and electrification

1.2 Goals of the Municipal Operations Climate Action Plan

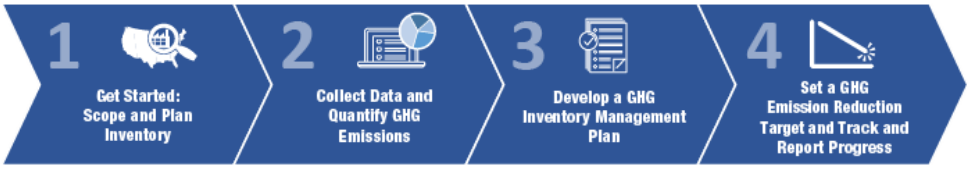
The Town is actively working toward certification to become a Climate Smart Community (CSC). The CSC program, run by the NYS Department of Environmental Conservation, aims to provide municipalities with a roadmap of actions to locally reduce greenhouse gas emissions and be resilient as well as adapt in the face of climate change. Certification as a CSC requires the implementation of a multitude of actions that allows the Town to complete these goals (climatesmart.ny.gov). To engage the public and promote transparency and accountability, the Town of North Hempstead appointed a Climate Smart Communities Coordinator and Task Force on January 21, 2021 (RESOLUTION No. 51-2021). The Task Force advises the Town Board on climate related activities as well as the Town's Climate Smart Communities certification planning.

This Municipal Operations Climate Action Plan will focus on the Town's operations and includes recommendations for comprehensive policies and programs that will reduce GHGs, enhance operational and energy efficiencies, reduce energy costs, and adapt to a changing climate within the Town's facilities.

The Town of North Hempstead's Municipal Operations Climate Action Plan is the foundation of an ongoing and collective process that demonstrates the Town's commitment to engage local government, residents, businesses, community stakeholders and the public on the threat of climate change and the active role we can play in reducing impacts.

The plan begins with a review of a greenhouse gas (GHG) emissions inventory focused on the Town's operations followed by strategies for reducing GHGs. These strategies have been vetted by the Town Board, department heads and the Climate Smart Communities Task Force to ensure implementation is practical. They are aimed at reducing costs and advancing important community interests related to the health and safety of Town residents, economic vitality, energy independence, ecological balance, and preserving the quality of life in the Town of North Hempstead. Our hope is that this Municipal Operations Climate Action Plan provides methods that can also be used by residents, businesses and government to foster a sustainable and resilient future for their community.

2. Greenhouse Gas Emissions Inventory



Town of North Hempstead Government Operations- 2019

2.1 Description

As part of the Municipal Operations Climate Action Plan, the Town created a government operations Greenhouse Gas (GHG) inventory. A government operations GHG inventory is an accounting, analysis, and baseline report of the GHG emissions resulting from the day-to-day operations of the municipality. This can include consumption of energy and materials from the operation of government-owned or managed facilities, emissions from vehicle fleets, energy from outdoor lighting, wastewater and water treatment facility processes, decomposition of waste, and other sources. The inventory can be used as a starting point for developing climate mitigation strategies and as a benchmark for tracking progress for GHG reductions.

2.2 Methodology

To set goals and measure progress the Town selected a baseline year of 2019 for its Greenhouse Gas Inventory. This year was chosen since it is more reflective of the Town's emissions prior to the Covid-19 pandemic, which began in 2020. To complete this GHG inventory the Town's Planning Department used the US Environmental Protection Agency's "Local Greenhouse Gas Inventory Tool 2022: Government Operations Module (4)."

This inventory includes Scope 1 and Scope 2 emissions. Scope 1 emissions are direct emissions. For the Town this consists of emissions from heating in the form of natural gas and oil use in its buildings and mobile sources in the form of vehicle fuel use from the Town's fleet. Scope 2 emissions are indirect emissions associated with the use of purchased or acquired electricity. For the Town this consists of electricity use in Town buildings as well as the electricity use of Town owned streetlights. The unit of measure utilized in the inventory is metric tons of CO2-equivalent, which factors in all types of emissions that contribute to global climate change including methane, nitrous oxide, and carbon dioxide.

2.3 Data Collection

- Buildings and Facilities, Energy Consumption: Energy consumption was obtained from utility billing records for oil, natural gas, and electricity.
  - Note on oil emissions: The section of stationary combustion in the EPA's accounting tool does not include Fuel Oil No. 2, which is used for heating Town facilities, so Fuel Oil No. 5 was used instead. According to EPA's Emission Factors for Greenhouse Gas Inventories (5), both have similar factors: Fuel No. 2 = 73.96 kg CO2 per MMBtu and Fuel No. 5 = 72.93 CO2 per MMBtu.

- Streetlights: Electricity consumption was obtained from utility billing records (most of these accounts are unmetered).

- Mobile Sources: Data on vehicle fuel consumption was collected from the Town's EJ Ward software that records vehicle fuel usage at the Town's fueling stations. Unfortunately, we did not have accurate information on vehicle miles travelled from the EJ Ward software, so the average mpg was researched for each vehicle from fueleconomy.com, fuelly.com and other additional resources online. Multiplying this number by the volume of fuel used provided an estimate of the VMT (vehicle miles travelled), which was needed to calculate emissions in the EPA workbook.

Note: The Town may determine that it is necessary to address other municipal actions besides those detailed in this inventory in the future to further reduce GHG emissions.

2.4 Results

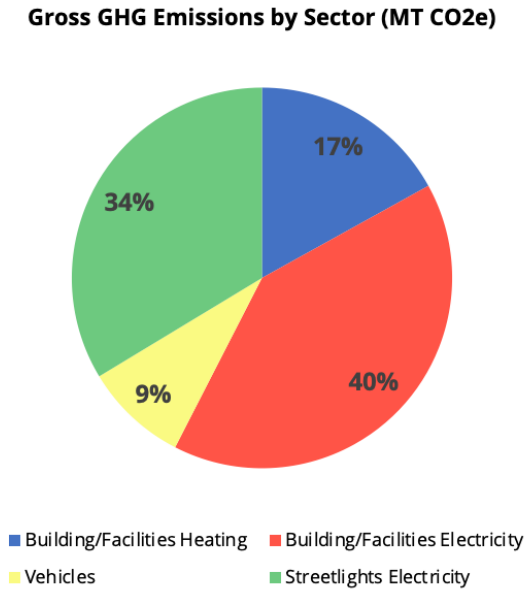
Total GHG Emissions

In 2019, the Town of North Hempstead generated 11,297 metric tons of CO2 equivalent (MT CO2e) from the following sectors:

- Building/Facilities Heating
- Building/Facilities Electricity
- Streetlights Electricity
- Vehicle Use

Electricity used in buildings and facilities accounted for the largest percentage of emissions (40%) followed by electricity used by Town owned streetlights (34 %). Figure 1 shows Town operations emissions by sector.

FIGURE 1. TOWN OF NORTH HEMPSTEAD 2019 GOVERNMENT OPERATIONS GHG EMISSIONS BY SECTOR



Gross GHG Emissions by Sector		
Sector	Total (MT CO2e)	Percent of Total
Building/Facilities Heating	1,916	17%
Building/Facilities Electricity	4,585	40%
Vehicles	995	9%
Streetlights Electricity	3,801	34%
Total	**11,297**	

Building Emissions by Department

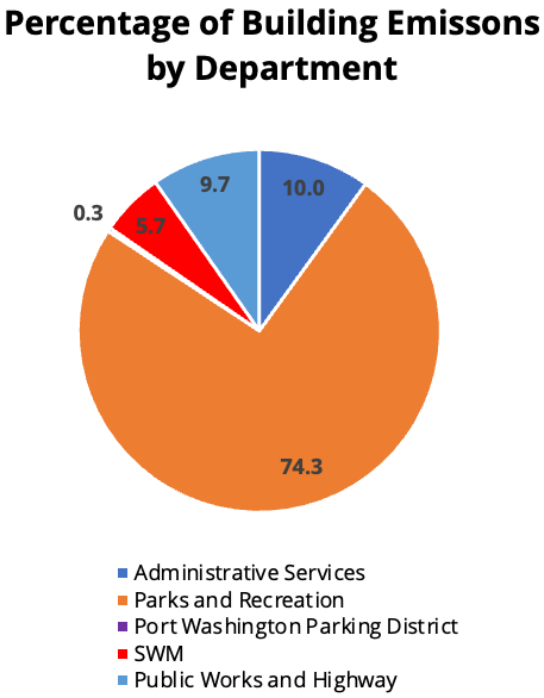
The Town has approximately 74 buildings and facilities which are used for government operations, including conducting public business, recreational usage, office space for staff, and storage of equipment, among other things.

Building heating and electricity together make up 57% of the Towns GHG emissions. These emissions were broken down by Town department as seen in Figure 2. The Department of Parks and Recreation, who has the majority of facilities/large facilities, accounted for the majority of building emissions at 74.3%.

Note: Administrative Services maintains multiple buildings that house various departments. Buildings include the Animal Shelter, which houses Public Safety staff, as well as Town Hall 1 and Town Hall 2, which house the Building Department, Department of Planning and Environmental Protection, Town Clerks Office, Supervisor's Office, Communications Department, IT, Town Attorney's Office, Town Board, Receiver of Taxes, Comptroller, and Human Resources.

The Town tracks its building energy use and emissions each year through Energy Star PortfolioManager (6). The data from benchmarking in 2019 showed that the highest greenhouse gas emissions resulted from Tully Park, Harbor Links buildings, Yes We Can Center, the Solid Waste Management buildings and the Department of Public Works building (Figure 3). These buildings made up approximately 58% of the Town's total building emissions in 2019 (see Appendix A for complete benchmarking data for 2019 buildings).

FIGURE 2. TOWN OF NORTH HEMPSTEAD 2019 GOVERNMENT OPERATIONS GHG BUILDING EMISSIONS (INCLUDING HEATING AND ELECTRICITY) BY DEPARTMENT



Department Building Emissions				
Department	Electricity (MT CO2e)	Heating (MT CO2e)	Total (MT CO2e)	Percent of Total
Administrative Services	476.4	172.4	648.8	10.0
Parks and Recreation	3710.1	1119.9	4830.0	74.3
Port Washington Parking District	11.5	10.0	21.5	0.3
SWM	299.1	69.4	368.4	5.7
Public Works and Highway	87.8	544.7	632.5	9.7
Total	**4,584.8**	**1,916.4**	**6,501.1**	

FIGURE 3. THIS CHART SHOWS THE TOP 5 TOWN OWNED PROPERTIES THAT CONTRIBUTE TO THE HIGHEST EMISSIONS FROM THEIR BUILDING(S). NOTE THAT LOCATIONS LIKE TULLY PARK ONLY HAVE 1 BUILDING, WHILE HARBOR LINKS HAS 4.

Location	**Number of Buildings**	**Total GHG Emissions (Metric Tons CO2e)**
Tully Park	1	1625.6
Harbor Links	4	663.3
Yes We Can Center	1	583.9
Solid Waste Management	3	470.2
Department of Public Works and Highway Yard	1	442.4

Vehicle Emissions by Fuel Type

The Town has 240 vehicles comprised of passenger cars, hybrids, plug-in hybrids, buses, and heavy-duty vehicles. Gasoline is used by 61% of Town vehicles in some capacity (some are hybrids or plug-in hybrid vehicles) and account for about an equal percent of greenhouse gas emissions. Diesel vehicles account for 40% of the Town's fleet and emissions. Figure 4 shows the GHG emissions from Town vehicles by fuel type.

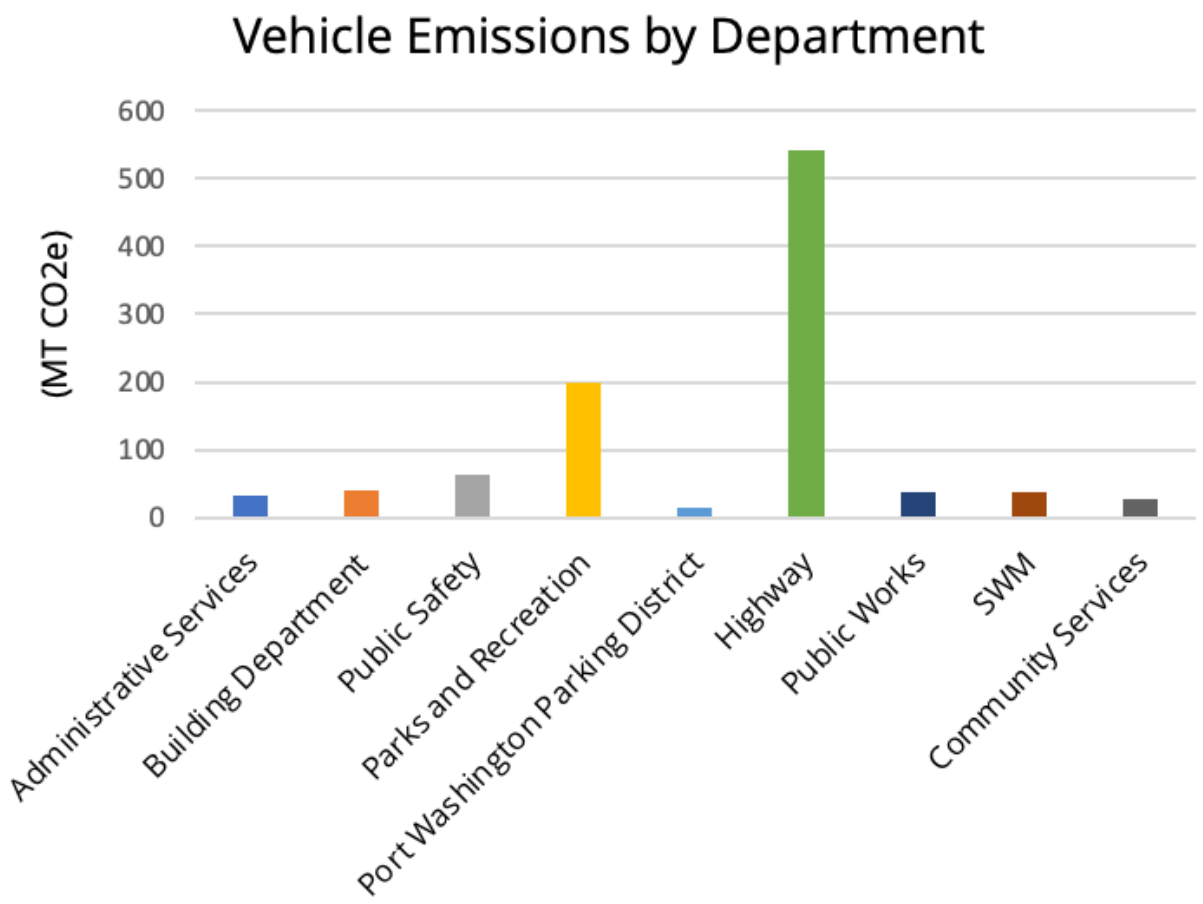
FIGURE 4. TOWN OF NORTH HEMPSTEAD 2019 VEHICLE EMISSIONS BY FUEL TYPE.

Vehicle Emissions by Fuel Type				
Fuel Type	**# Vehicles**	**Percent of Total Vehicles**	**GHG Emissions (MT CO2e)**	**Percent of Total Vehicle Emissions**
Diesel	94	39%	401	40%
Gasoline	146	61%	594	60%
Total	**240**		**995**	

Vehicle Emissions by Department

Emissions were also calculated for each department of the Town that has a fleet. As seen in Figure 5 the Highway Department accounts for the highest emissions (542 MT CO2e), while Parks and Recreation accounts for the second highest (198 MT CO2e).
Note: The Administrative Services department allows other departments use of their vehicles that do not have their own.

FIGURE 5. TOWN OF NORTH HEMPSTEAD 2019 VEHICLE EMISSIONS BY DEPARTMENT.



Summary of North Hempstead Municipal Operations GHG Inventory

The results of this inventory were used to prioritize actions to reduce GHG emissions in the North Hempstead Climate Action Plan. The largest impact in GHG reduction will come from addressing streetlights and building energy use. Parks and Recreation Department buildings represent the highest emissions, and therefore should be prioritized along with the three other buildings in the top five building list by emissions (Figures 2 and 3). It will also be important to reduce vehicle emissions. The Highway Department represents the highest vehicle emissions and therefore should be prioritized.

3. Government Operations GHG Reduction Goal

A 20% reduction of greenhouse gas emissions from the 2019 baseline year by 2030.

4. TOWN MUNICIPAL OPERATIONS ACTIONS TO REDUCE IMPACTS OF CLIMATE CHANGE

Categories:

4.1 Decreasing energy use and shifting to clean, renewable energy;
4.2 Transportation and fleet;
4.3 Resiliency, adaptation and natural solutions; and
4.4 Materials and waste management.

4.1 Decreasing energy use and shifting to clean, renewable energy

Past and In-progress Municipal and Community Focused Actions

Clean Energy Communities Program

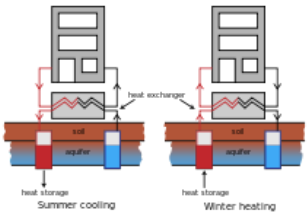
The Clean Energy Communities Program is administered by the New York State Energy Research and Development Authority (NYSERDA) and helps local governments to implement clean energy actions, save energy costs, and improve the environment (7). The Town has completed the following high-impact action items and is currently a designated Clean Energy Community:

- Use multiple alternative fuel vehicles, such as plug-in hybrid cars, for municipal business.
- Participated in a Solarize North Hempstead campaign to reduce solar project costs through joint purchasing for both businesses and residents. The campaign led to a total of 170 kW of PV electricity being installed on 14 residential and commercial properties.
- Completed energy code enforcement training on best practices for code compliance officers and other municipal officers.
- Adopted a benchmarking policy to track and report the energy use of the Town's municipal buildings and participate in advanced reporting by sharing data with NYSERDA. This effort will allow the Town to track reductions achieved through actions recommended in this plan. It is important to note that 2020 was an unusual year due to the COVID-19 pandemic so these numbers most likely do not reflect the Town's normal energy use and GHG emissions. Benchmarking results for years 2018-2021 are posted to the Town's Climate action webpage and can be viewed here: northhempsteadny.gov/climateplanning.

Partnerships

- The Town is a member of the Clean Energy Leadership Task Force run by Molly University's Sustainability Institute. Its mission is to convene leaders, facilitate the exchange of information and ideas, and foster collaborations to identify regional leadership that advances plans, policies, and programs to mitigate climate change, reduce our carbon footprint, cut local air pollution, create green jobs, and build a clean energy sector on Long Island (8).
- The Town is a proud partner of the Long Island Green Homes Initiative, a non-profit collaborative partnership of Long Island Towns, community-based organizations, and Molloy University. Long Island Green Homes makes it easy for homeowners to accomplish the goal of energy efficiency and lower energy bills by offering a free home energy audit that helps to make affordable improvements to their homes (9).
- The Town is proud to continue its outreach efforts on sustainability programming and has engaged local Villages, environmental groups, civic associations, chamber's of commerce, places of worship and other interested parties. The Town has already developed a Public Engagement and Education Plan that details how to accomplish climate change related outreach and events in the community. This includes a webpage, social media posts, multiple educational events, and more. The full plan can be found at northhempsteadny.gov/climateplanning.

Past and In-Progress Municipal and Community Actions to Decrease Energy Use and Shift to Clean, Renewable Energy (continued)



- YWC Heat Pumps: The Town installed a ground source heat pump (geothermal) system at the Yes We Can Community Center in New Cassel in 2012. The community center also contains educational signage to inform the public about this more efficient heating and cooling system. According to the US Department of Energy geothermal heat pumps can save 33-65% in energy use and cut CO2 emissions by 25-65% over standard HVAC systems.
- Annual Benchmarking Energy Use in Town Buildings: The Town adopted a policy to track and report the energy use of the Town's municipal buildings on an annual basis. This information helps the Town determine what buildings are using the most energy and determine ways for reduction.
- The Town trains code compliance/enforcement officers in energy code best practices to ensure the reduction of energy use. Energy Code Enforcement training provided by NYSERDA will be taken by Building Department employees as needed. It was last completed in December 2021.
- Town code requires that certain new residential construction achieve minimum energy conservation performance as verified by the Home Energy Rating System (HERS). This will ensure that the dwellings use considerably less energy than if built to prevailing building standards.
- The Town adopted a local law that landscapers and Town employees are not authorized to operate gas-powered leaf blowers between June 15 and September 15 to reduce noise and air pollution and gasoline usage.
- The Town is continually replacing old equipment with more efficient equipment like installing LEDs in Town buildings, exterior lights, and streetlights, as well as new insulation and windows, and HVAC systems in its buildings.
- The Town is an EPA WaterSense Promotional Partner. The WaterSense Program offers simple ways for consumers to identify water-efficient products, homes and programs that meet EPA's criteria for efficiency and performance. WaterSense-labeled products and services are certified to use at least 20 percent less water, save energy, and perform as well as or better than regular models. The Town promotes this program to its residents through social media, flyers and other outreach activities (10).
- The Town's Port Washington Parking District owns six solar powered multi-space parking meters.

Potential Future Municipal Operations Actions and Initiatives to Decrease Energy Use and Shift to Clean, Renewable Energy

- **Town of North Hempstead buildings emit 6,501 MT CO2e/year, representing 57% of the Town's Gross GHG emissions.** Lowering emissions in Parks and Recreation facilities which result in 4830 MT Co2e/year, representing 74.3% of governmental building emissions along with the three other buildings in the top five building list by emissions that accounted for 58% of total building emissions in 2019 will be priorities.

- **Develop a feasibility assessment on PV solar installations on multiple Town buildings and parking areas**. The assessment will include feasibility and a cost/benefit analysis as well as available incentives.
  - Engaged Departments/Agencies: Planning department
  - Timeframe: Short
  - Funding Sources: N/A
  - Potential Cost: Low
  - GHG Reduction Potential: Low, a planning tool

- **PV Solar Installations based on solar assessment cost/benefit recommendations.** The Town will review the feasibility assessment completed for Town buildings and parking areas and select the best options for solar installation.
  - Engaged Departments/Agencies: Department of Public Works, Administrative Services
  - Timeframe: Short to Long
  - Funding Sources: Financing
  - Potential Cost: High
  - GHG Reduction Potential: High

- **Building energy audits to determine the best course of action in reducing energy use and thereby reducing greenhouse emissions as well as energy costs.** Since Town buildings contribute most to the Town's gross GHG emissions it is an important process to establish where more efficient HVAC systems, indoor lighting, insulation, and window replacements will provide the most benefits.
  - Engaged Departments/Agencies: Possibly NYPA or an Energy Services Company (ESCO)
  - Timeframe: Ongoing
  - Funding Sources: Capital funds, Operating funds
  - Potential Cost: High
  - GHG Reduction Potential: Low, planning tool

Potential Future Municipal Operations Actions and Initiatives to Decrease Energy Use and Shift to Clean, Renewable Energy (continued)

- **Install more efficient HVAC systems, insulation, and window replacements as directed by the building energy audits.** HVAC systems in Town buildings result in 1,916 MT CO2e/year, representing 17% of the Town's gross GHG emissions. Replacing boilers, chillers, heat pumps, air handling units, compressors, fans, and water heaters over time with energy efficient models such as Energy Star will reduce these emissions.
  - Engaged Departments/Agencies: Department of Public Works, Administrative Services, NYPA or an Energy Services Company (ESCO)
  - Timeframe: Ongoing
  - Funding Sources: Capital funds, PSEG rebates, financing
  - Potential Cost: High
  - GHG Reduction Potential: High

- **Continue to convert streetlight systems into energy efficient LEDs.** Currently the Town is working with a contractor to gradually replace inefficient lighting with LEDs. Through NYPA's comprehensive replacement program the Town could receive a potential savings of 3.8 million kWh according to their 2019 assessment as well as over 2,500 metric tons of CO2e (according to the EPA). The return on investment would be realized in approximately six years through energy savings. Streetlight conversion is very important because existing street lighting is resulting in 3,801 MT CO2e/year, representing 34% of the Town's gross GHG emissions.
  - Engaged Departments/Agencies: Department of Public Works
  - Timeframe: Ongoing
  - Funding Sources: Capital Funds/rebates and incentives
  - Potential Cost: High
  - GHG Reduction Potential: High

Potential Future Municipal Operations Actions and Initiatives to Decrease Energy Use and Shift to Clean, Renewable Energy (continued)

- **Increase use of energy efficient interior and exterior lighting in governmental facilities to reduce GHG emissions from buildings/facilities electricity which produce 4,585 MT CO2e/year, representing 40% of the Town's gross GHG emissions.** The Town should continue to upgrade lighting with LEDs and investigate solar technology for outdoor lighting. Currently the Town replaces non-working lighting with LEDs, but once the Town conducts energy audits they will be able to identify and prioritize replacements with the most benefit.
  - Engaged Departments/Agencies: Administrative Services, NYPA or an Energy Services Company (ESCO)
  - Timeframe: Ongoing, can be prioritized as building audits reveal information
  - Funding Sources: Capital funds, PSEG rebates
  - Potential Cost: Low to Medium
  - GHG Reduction Potential: Medium

- **Install Water Efficient Fixtures. Consider implementing policies to replace any applicable fixtures with WaterSense certified fixtures (ex. faucets, toilets, sprinkler spray bodies, etc.).** Saving water is important for many reasons including reducing the strain on Long Island's sole source aquifers, reducing energy needed to pump this water, reducing energy needed to heat water, and reducing costs to the Town.
  - Engaged Departments/Agencies: Purchasing, Administrative services, Department of Public Works
  - Timeframe: Moderate, if it will be done only when fixtures are being replaced then it may take some time (many have already been replaced with WaterSense models)
  - Funding Sources: Capital funds
  - Potential Cost: Low
  - GHG Reduction Potential: Low

- **Implement energy saving office policies such as setting thermostats for maximum energy conservation, installation of auto shut off lights when not in use, installing smart thermostats, and automating shutdown of office equipment.** This will reduce gross GHG emissions from buildings/facilities electricity which produce 4,585 MT CO2e/year, representing 40% of the Town's gross GHG emissions.
  - Engaged Departments/Agencies: Department of Public Works, Admin Services, NYPA, ESCO
  - Timeframe: Short
  - Funding Sources: General funds
  - Potential Cost: Low to medium
  - GHG Reduction Potential: Low

Potential Future Municipal Operations Actions and Initiatives to Decrease Energy Use and Shift to Clean, Renewable Energy (continued)

- **Financial and Policy Mechanisms.** Integrate energy efficiency into Capital Projects by putting in bid books that all capital equipment purchases made be energy efficient (ex. Energy Star Certified). This will yield increased energy savings as well as monetary savings over time.
  - Engaged Departments/Agencies: Department of Public Works, Parks and Recreation, Administrative Services, NYPA, ESCO
  - Timeframe: Short
  - Funding Sources: N/A
  - Potential Cost: Medium to high- costs for these energy efficient purchases may be higher than standard equipment, but in present times Energy Star appliances often do not have a substantial increase in price or are a similar cost
  - GHG Reduction Potential: Medium

- **Adopt an environmentally preferable purchasing policy to make a reasonable attempt to purchase products and services that have a reduced negative impact or increased positive impact on the environment and human health compared to traditional products.** Green products or services may be reused, recycled, consume fewer natural resources, last longer or include or produce fewer toxic substances or solid waste. Considerations for green procurement may also include the environmental cost of raw materials, manufacturing, packaging, transporting, distribution, storing, handling, using, maintaining, and disposing of the product.
  - Engaged Departments/Agencies: Purchasing
  - Timeframe: Short to medium
  - Funding Sources: N/A
  - Potential Cost: N/A, however these environmentally friendly purchases could possibly be more expensive than standard purchases
  - GHG Reduction Potential: Low

- **Employee training on sustainable office practices.** This will include ways of working more sustainably including how employees can reduce energy, waste, and water while at work.
  - Engaged Departments/Agencies: Human Resources or outside organization
  - Timeframe: Short
  - Funding Sources: N/A
  - Potential Cost: Low
  - GHG Reduction Potential: Low

4.2 Transportation and fleet

Past and In-progress Municipal and Community Focused Actions

Town of North Hempstead vehicles emit 995 MT CO2e/year, representing 9% of the Town's Gross GHG emissions.
(Source: North Hempstead Municipal Greenhouse Gas Inventory)

- The Town currently has multiple plug-in hybrid vehicles for employee use, which are more fuel efficient and produce less GHG emissions than traditional counterparts.
- The Town has entered into an agreement with Blink Charging Co. to increase electric vehicle charging stations on Town properties for employees and public use.
- The Town contracted PedalShare to setup bike share locations in Port Washington at the Town Dock, Port Washington LIRR Station and Manorhaven Beach Park.
- In 2022, the Town hosted a virtual Transportation Innovation Series to help residents reduce car dependency by learning about greener modes of travel such as public transportation, active transportation, and electric vehicles. Leaders from Transit Solutions, Drive Electric Long Island and the US Green Building Council Sustainable Transportation committee each led a community conversation.
- The Town also created a Bike and Helmet Safety Tips flyer and held Bike Rodeo and Helmet Safety Events in 2022. This was done in collaboration with the Port Washington Police Department and the NY Coalition for Transportation Safety. The Bike Rodeo is a series of courses that provides children the opportunity to practice safety and agility skills using their own bicycles.
- The Town of North Hempstead placed first in Long Island's Car Free Day Municipal Challenge, which means more employees pledged to reduce their car travel on Car Free Day than any other municipality on LI.

Potential Future Municipal Operations Actions: Transportation and Fleet

- **Improve the average fuel efficiency of current Town government fleet vehicles.** Strategies include discouraging vehicle idling and encouraging car-pooling for employees while at work. A priority will be Highway Department vehicles, which account for the highest emissions.
  - Engaged Departments/Agencies: Building Department, Department of Public Works/Highway Department, Administrative Services, Parks and Recreation
  - Timeframe: Short
  - Funding Sources: N/A
  - Potential Cost: None
  - GHG Reduction Potential: Low

- **Vehicle Use Audit.** This will assess all Town vehicles and gain information on number and types of vehicles, fuel efficiency, mileage, and age of current vehicles. This information will help determine what vehicles should be replaced with more efficient vehicles like EVs.
  - Engaged Departments/Agencies: Planning Department
  - Timeframe: Short
  - Funding Sources: N/A
  - Potential Cost: N/A
  - GHG Reduction Potential: Low

- **Replace vehicles with more efficient models, especially EVs.** Replacing inefficient models with hybrid electric, plug-in hybrid and battery electric vehicles will save energy, reduce emissions, and save on maintenance costs. The Town is considering creating a policy on replacing and retiring vehicles with alternatives of a certain efficiency (ex. over 40 mpg for passenger cars or vehicles that are 30% more efficient than the vehicle being replaced). We are also considering providing specific efficiency requirements for any vendor that bids for the Town's vehicle purchases.
  - Engaged Departments/Agencies: Purchasing
  - Timeframe: Moderate to long, writing guidelines will be short, but vehicle replacement will be long term
  - Funding Sources: Capital funds, NYSERDA rebates for government electric car purchases
  - Potential Cost: Medium to High
  - GHG Reduction Potential: Medium

Potential Future Municipal Operations Actions: Transportation and Fleet (continued)

- **Increase EV charging stations for employees.** Since the Town is looking to start replacing older vehicles with battery electric vehicles, charging stations/outlets would be needed to charge these vehicles on Town property. It is possible that these stations may be used by employees for their personal vehicles as well when not in use by Town vehicles.
  - Engaged Departments/Agencies: Department of Public Works, Administrative Services
  - Timeframe: Ongoing
  - Funding Sources: NYSERDA rebates, capital funds, grants
  - Potential Cost: Medium
  - GHG Reduction Potential: Medium

- **Consider implementing a program to provide employees pre-tax transit benefits** to incentivize use of public transit, which will reduce greenhouse gas emissions from personal employee vehicles.
  - Engaged Departments/Agencies: Human Resources
  - Timeline: Short
  - Funding Sources: N/A
  - Potential Cost: Low (employers don't pay payroll taxes on the amount employees deduct)
  - GHG Reduction Potential: Low

4.3 Resiliency, Adaptation and Natural Solutions

Past and In-progress Municipal and Community Focused Actions

- The Town is a recognized Tree City USA community and is focused on the many benefits of trees including carbon dioxide removal, stormwater absorption, habitat for wildlife, windbreaks, and shade, which can lower cooling/heating costs. The Town amended its existing Tree Code and Tree Policy in 2021 to improve care of existing trees and increase the Town's tree canopy. It includes creation of a Tree Master Plan, inventory, prioritization of native species, creation of micro forests or tree sanctuaries, reconstituting the Town's Tree Advisory Committee to include residents, and creating a Tree Preservation Fund for tree related activities.
- Since 2018, the Town has taken the National Wildlife Foundation's Mayors' Monarch Pledge (11), which requires the completion of many actions to help monarch butterflies and other pollinators whose populations are diminishing in the wild. Town actions include issuing a Proclamation to raise awareness about the decline of the monarch butterfly and the species' need for habitat, launching a public communication effort to encourage citizens to plant native plant gardens in their home landscape or in their neighborhoods, and the creation of habitat on Town property. The Town has planted many pollinator gardens and other native plantings which provide host and nectar plants for the monarch to complete its lifecycle. These native plants have extensive root systems, which provide the benefits of carbon and stormwater absorption. They also provide food and habitat for other pollinators like native bees, wasps, flies, beetles, and moths, as well as birds and small mammals.
- Water-smart landscaping: The Town of North Hempstead offers educational workshops in Sustainable Yard Care, Rain Gardens and Gardening with Native Plants each year. These workshops discuss the benefits of native plants including, saving water and drought tolerance (https://www.northhempsteadny.gov/workshops). The Town also strives to increase the use of native plants in its own landscapes due to their benefits for wildlife and the environment, including water conservation and carbon absorption. Many native plant gardens have been installed in Town parks including at Gerry Park in Roslyn, Clark Botanic Garden in Albertson, Yes We Can Community Center and Martin "Bunky" Reid Park in New Cassel, Fuschillo Park in Carle Place, Ridder's Park in New Hyde Park and Whitney Park in Manhasset (https://www.northhempsteadny.gov/nativeplants).
- In 2017, the Town launched its "Only Rain in the Drain" campaign to keep stormwater free of pollutants. The Town used rain-activated sidewalk art on Town property, including North Hempstead Beach Park, Tully Park, Town Dock and Town Hall, and a Stormwater Police educational video as part of the outreach campaign. The goal is to help people connect that what goes into the storm drains also goes into the Town's waterways and drinking water, which in turn can affect human health, harm water quality and hurt wildlife (for more information visit northhempsteadny.gov/news/?FeedID=2416). In 2018, the Town also created an "Only Rain in the Drain" lesson plan for students K-12 to help them gain an understanding of the sources of stormwater pollution that culminated with an Earth Day T-shirt contest where students created shirt designs that communicated "Only Rain in the Drain."

4.3 Resiliency, Adaptation and Natural Solutions

Past and In-progress Municipal and Community Focused Actions (continued)

- Stormwater mapping project: With funding from the Department of Environmental Conservation's Water Quality Improvement Project Program, the Town of North Hempstead conducted comprehensive GIS mapping with and on behalf of the Town, 19 Villages within the Town's borders, the Village of Sea Cliff, and the City of Glen Cove. This mapping included waterbodies and outfalls, sewershed boundaries, stormwater management practices, and storm sewer systems. In addition, the project generated a "Surface Water Priority Action Zone" which will support policymaking and capital planning and created a GIS attribute layer that identifies and characterizes septic systems to support municipal efforts to inspect septic systems that may be contributing to water quality impairments. The project addressed water quality in Little Neck Bay, Manhasset Bay, and Hempstead Harbor, all of which are impaired embayments of the Long Island Sound, an EPA-designated Estuary of National Significance.
- The Town is currently working with the Manhasset Bay Protection Committee on a WQIP, which will identify pollution issues and sources in Manhasset Bay, as well as recommendations for projects, management actions, and other steps to eliminate these sources. Focus will be on how climate change and habitat loss will further impact the Bay and watershed. The WQIP will include a 20-year vision and projects and activities to improve and protect water quality in Manhasset Bay. The goal is to use the WQIP to attract funding to implement these projects, produce jobs, and improve water quality.
- Cooling Centers: Since climate change can cause more extreme high temperatures the Town of North Hempstead opens cooling centers at Yes We Can Community Center, Tully Park, and the Port Washington Senior Center when heat waves occur. These are all open past business hours and are published on social media as well as press releases. They are also on the list of cooling centers on News 12. This allows residents a place to stay out of extreme heat, thereby preventing health issues.
- A Hazard Mitigation Plan was created by Nassau County and approved by FEMA. There is a section devoted to the Town of North Hempstead that was written with information provided by Town of North Hempstead staff. It was adopted by the North Hempstead Board in January 2021. Full plan at: nassaucountyny.gov/2813/Hazmit-Plan
- Green Infrastructure: The Town constructed a rain garden at Clark Botanic Garden in Albertson in 2016. This garden receives stormwater from the roof of Clark's main building as well as the pathway leading to the garden, thereby preventing runoff from these areas. The garden also contains many native plants to absorb stormwater, absorb pollutants from stormwater and allow water to recharge the underlying aquifers. The Town also created two bioswales at Petrus Park in Port Washington when the park was built in 2017. These bioswales have the same stormwater mitigation benefits as rain gardens.

Potential Future Municipal Operations Actions: Resiliency, Adaptation and Natural Solutions

- **Increase Green Infrastructure:** Create a green infrastructure assessment for Town properties that will show the locations where green infrastructure can be utilized including bioswales, vegetated buffer strips, bioretention areas, rain gardens and porous pavement. Parking lots should be prioritized due to their large contribution to runoff. Installing these green infrastructure elements will reduce flooding and stormwater runoff, which will continue to increase with climate change.
  - Engaged Departments/Agencies: Planning, Department of Public Works, Parks and Recreation
  - Timeframe: Moderate to long
  - Funding Sources: General fund, grants
  - Potential Cost: High
  - GHG Reduction Potential: Low

- **Continue increasing the use of native plants at Town facilities.** Native plants have extensive root systems, which will absorb carbon dioxide as well as polluted stormwater runoff. They also intercept rainfall, filter runoff, capture sediment, soak in excess floodwaters, provide shade and reduce stream temperatures, reduce erosion, and provide wildlife habitat. Groundcovers would also reduce the need to mow at all or as often, which will reduce pollution from this equipment.
  - Engaged Departments/Agencies: Planning Department, Parks Department, Administrative Services
  - Timeframe: Ongoing, would be a gradual process to replace existing vegetation with native vegetation
  - Funding Sources: General funds, grants
  - Potential Cost: Low to moderate
  - GHG Reduction Potential: Low

- **Create tree inventories and management plans for all Town properties (or ones that have a necessary need).** This would allow the Town to identify the location, number, health, risk, and environmental benefits (reduced heating and cooling costs, shade, stormwater absorption, carbon dioxide removal, air pollutant removal, wildlife habitat, beauty) of trees on Town owned land. Increasing storms due to climate change make trees with diseases or other issues more of a risk and it is important for public safety to have this information and manage it effectively. This would also help the Town to determine new planting locations.
  - Engaged Departments/Agencies: Town's Tree Advisory Board
  - Timeframe: Moderate to Long
  - Funding Sources: General funds, grants (ex. DEC Urban Forestry grants)
  - Potential Cost: High
  - GHG Reduction Potential: Low

Potential Future Municipal Operations Actions: Resiliency, Adaptation and Natural Solutions (continued)

- **Increasing sustainable/resilient landscaping methods. For the Town to be committed to resiliency, landscapes must be managed in such a way as to reduce inputs like water, fertilizers, and energy.** Practices include using and maintaining native plants, smart irrigation, creation of rain gardens and other green infrastructure, tree planting and care, use of electric equipment like leaf blowers and mowers, reduction of chemical inputs like pesticides and fertilizers, erosion control and maintaining habitat for wildlife. Training workshops are a great tool that should be employed to educate groundskeeping staff on these methods.
  - Engaged Departments/Agencies: Parks and Recreation, Department of Public Works, Highway Department, Administrative Services, Solid Waste Management
  - Timeframe: Ongoing- training can be scheduled by the Town or taken as opportunities arise
  - Funding Sources: General funds
  - Potential Cost: Low
  - GHG Reduction Potential: Low

- **Increase shade structures/trees in public spaces on Town properties.** This would help people, pets, and wildlife with the effects of increased summer temperatures. It could come in the form of gazebos, awnings, and trees. Tree inventories would be helpful in determining where trees are lacking.
  - Engaged Departments/Agencies: Parks and Recreation, Department of Public Works
  - Timeframe: Ongoing- this would be a long-term project, first assessing where we need and could put in structures/trees and then installing them
  - Funding Sources: Capital funds, general funds
  - Potential Cost: Low to high- will be dependent on how many are needed and what type of structure is used (ex. tree vs. gazebo)
  - GHG Reduction Potential: Low

- **Evaluate Policies for Climate Resiliency.** The Town would evaluate its current policies for climate resiliency by using a survey to identify any gaps or deficiencies in local plans, policies and projects. This will provide opportunities to plan for and improve resiliency in the future.
  - Engaged Departments/Agencies: Planning, Department of Public Works
  - Timeframe: Short to Moderate
  - Funding Sources: N/A
  - Potential Cost: None
  - GHG Reduction Potential: Low

4.4 Materials and Waste Management

Past and In-progress Municipal and Community Focused Actions

- Organics Management Plan: The Town adopted this plan that details ways to reduce the flow of wasted food which will in turn reduce greenhouse gas emissions and help feed the hungry in the North Hempstead community. It includes outreach to residents on reducing waste in the home though tips on the Town's website and Food Waste Free Friday social media posts. Through the plan the Town also created a list of local food banks to allow residents to donate excess food to those in need. The plan also outlines the Town's compost bin program for residents which is detailed below. The full plan can be viewed at northhempsteadny.gov/climateplanning
- Compost bins to residents: The Town sells compost bins at a discount to Town residents annually. This allows residents to reduce waste and utilize organic materials to provide for home landscape plants. Compost can also help reduce the need for fertilizers, which will help improve the local water quality, including groundwater. Each year the Town gives a free Sustainable Yard Care workshop, which details how to compost and its benefits. Residents are provided a manual on how to compost with the purchase of their composter.
- The Town is in the process of creating a Know What to Throw video and campaign that will detail how residents can recycle and dispose of waste properly.
- The Town has a curbside pick-up for yard waste and accepts yard waste every Sunday between 7:30 AM – 2:30 PM at the Residential Drop-Off location (999 West Shore Road).

Potential Future Municipal Operations Actions: Materials and Waste Management

- **Recycling in Government Buildings:** The Town currently has recycling bins in some of their buildings but would like to increase the number of bins that employees (as well as residents that visit Town buildings) have access to, which will increase the ability of employees to recycle while at work. The bins should be centrally located and thereby easily accessible with appropriate signage and education on proper use.
  - Engaged Departments/Agencies: Administrative Services
  - Timeframe: Moderate
  - Funding Sources: General funds
  - Potential Cost: Low to medium
  - GHG Reduction Potential: Low

- **Conduct a waste audit:** This would include the examination of waste records, or facility-walk throughs, or waste sorts. It would help inform the Town where it can reduce waste in its facilities.
  - Engaged Departments/Agencies: Solid Waste Management, consultant
  - Timeframe: Moderate to long
  - Funding Sources: General funds, grants (may not cost anything if using internal staff to conduct audit)
  - Potential Cost: Low to medium
  - GHG Reduction Potential: Low

- **Employee education on waste reduction:** This could include promoting the reuse of materials, reducing the use of materials (ex. not printing emails or documents that can be viewed on the computer) and increasing recycling.
  - Engaged Departments/Agencies: Human resources
  - Timeframe: Short
  - Funding Sources: N/A
  - Potential Cost: None
  - GHG Reduction Potential: Low

- **Adopt an environmentally preferable purchasing policy, encouraging responsible packaging, recycled material content, recyclable materials.** See previous description in Energy Section.

5. Summary Matrix of Town Proposed Future Actions

Categories:

5.1 Decreasing energy use and shifting to clean, renewable energy;
5.2 Transportation and fleet;
5.3 Resiliency, adaptation and natural solutions; and
5.4 Materials and waste management

5.1 Decreasing energy use and shifting to clean, renewable energy

Strategy	Dept/Agencies	Timeframe	Cost to Implement	GHG Reduction Potential	Funding Sources
Solar Feasibility Assessment	Planning	Short	Low	Low, planning tool	N/A
Solar Installations	DPW, Administrative Services	Short to Long	High	High	Financing
Building Energy Audits	Possibly NYPA or ESCO	Ongoing	Low to medium	Low, planning tool	Capital funds/ operating
HVAC/ Building Efficiency Upgrades	DPW, Administrative Services, NYPA or an ESCO	Ongoing	High	High	Capital funds/ PSEG rebates/ financing
Streetlight Conversion	DPW	Ongoing	High	High	Capital funds/ rebates and incentives
Efficient interior/exterior lighting installations	Administrative Services, NYPA or an ESCO	Long/ ongoing	Low to medium	Medium	Capital funds/ PSEG rebates
Install Water Efficient Fixtures	Purchasing, Administrative Services, DPW	Moderate/ ongoing	Low	Low	Capital funds
Energy Saving Office Policies	Various	Short	Low to medium	Low	General funds
Financial and Policy Mechanisms	DPW, Parks, Administrative Services	Short	N/A	Medium	N/A
Environmental Purchasing Policy	Purchasing	Short to moderate	N/A	Low	N/A
Employee training on sustainable office practices	Human Resources or Outside Organization	Short	N/A	Low	N/A

5.2 Transportation and fleet

Strategy	Dept/Agencies	Timeframe	Cost to Implement	GHG Reduction Potential	Funding Sources
Improve Current Vehicle Efficiency	Building Department, DPW, Administrative Services	Short	N/A	Low	N/A
Vehicle Use Audit	Planning	Short	N/A	Low	N/A
Replace vehicles with higher efficiency models	Purchasing	Moderate to Long	Medium to high	Medium	Capital funds/ NYSERDA rebates
Increase charging stations for employees	Administrative Services	Ongoing	Medium to High	Medium	Capital funds/ NYSERDA rebates/ grants
Pre-tax transit benefits for employees	Human Resources	Short	Low	Low	N/A

5.3 Resiliency, adaptation and natural solutions

Strategy	Dept/Agencies	Timeframe	Cost to Implement	GHG Reduction Potential	Funding Sources
Green infrastructure	Planning, DPW, Parks	Moderate to Long	High	Low (carbon capture)	General fund/ grants
Native Plants	Planning Dept./ Parks, Administrative Services	Ongoing	Low to moderate	Low (carbon capture)	General funds/ grants
Tree Inventories and Management Plans	Town's Tree Advisory Board	Moderate to Long	High	Low (planning)	General funds/ grants
Sustainable Landscaping Methods	Parks, DPW, Highway, Administrative Services, Solid Waste Management	Ongoing	Low	Low	General funds
Shade Structures	Parks, DPW	Ongoing	Low to High	Low	Capital/ general funds
Climate Resiliency Evaluation	Planning, DPW	Short to Moderate	N/A	Low (planning)	N/A

5.4 Materials and waste management

Strategy	Dept/Agencies	Timeframe	Cost to Implement	GHG Reduction Potential	Funding Sources
Recycling in Government Buildings	Administrative Services	Moderate	Low to medium	Low	General funds
Conduct a Waste Audit	Solid Waste Management	Moderate to Long	Medium to High	Low (planning)	N/A
Waste reduction of employees	Human Resources	Short	N/A	Low	N/A
Environmental Purchasing Policy	Planning, Purchasing	Short to moderate	N/A	Low	N/A

6. Summary of Initiatives by Department

THIS CHART SUMMARIZES ALL FUTURE ACTIONS BY TOWN DEPARTMENTS THAT WOULD BE INVOLVED IN THE PLANNING AND IMPLEMENTATION OF THAT ACTION.

Planning	DPW	Admin Services	Parks	Highway	HR	SWM	Purchasing
Solar Feasibility	Solar Installations	Solar Installations	Financial and Policy Mechanisms	Vehicle efficiency	Employee training on sustainable office practices	Sustainable Landscaping Methods	Environmental Purchasing Policy
Vehicle Use Audit	HVAC/Building efficiency upgrades	HVAC/Building efficiency upgrades	Green infrastructure	Sustainable Landscaping Methods	Pre-tax transit benefits for employees	Waste Audit	Water Efficient Fixtures
Green Infrastructure	Streetlight conversion	Efficient interior/exterior lighting installations	Native Plants		Waste reduction of employees		
Native Plants	Water Efficient Fixtures	Install Water Efficient Fixtures	Sustainable Landscaping Methods				
Climate Resiliency Evaluation	Financial and Policy mechanisms	Financial and Policy Mechanisms	Shade Structures				
Environmental Purchasing Policy	Vehicle efficiency	Improve Current Vehicle Efficiency					
	Green Infrastructure	Increase charging stations for employees					
	Sustainable Landscaping Methods	Native Plants					
	Shade Structures	Sustainable Landscaping Methods					
	Climate Resiliency Evaluation	Recycling in Government Buildings					

7. GHG Reduction Impact vs. $

SUMMARY OF ALL PROPOSED ACTIONS LOOKING AT THEIR ESTIMATED COST RELATED TO THE GREENHOUSE GAS REDUCTION IMPACT.

Relative $	Low Impact	Medium Impact	High Impact
High	• Green infrastructure • Tree Inventories and Management Plans	• Replace vehicles with higher efficiency models	• Solar • HVAC/ Building Efficiency Upgrades • Streetlight Conversion
Medium	• Building energy audits • Install Water Efficient Fixtures • Energy Saving Office Policies • Shade Structures • Recycling in Government Buildings • Conduct a Waste Audit	• Increase charging stations for employees	
Low	• Solar Feasibility Assessment • Environmental Purchasing Policy • Employee training on sustainable office practices • Vehicle Efficiency Policy • Vehicle Use Audit • Pre-tax transit benefits for employees • Native Plants • Sustainable Landscaping Methods • Climate Resiliency Evaluation • Waste reduction of Employees • Environmental Purchasing Policy	• Efficient interior/exterior lighting installations • Financial and Policy Mechanisms	

8. Guide for Future

8.1 Administration and Staffing

This CAP is a road map created to guide the Town through the climate action process as well as carrying out sustainability measures in its municipal operations. The Town's next steps will be to adopt and implement this CAP within their municipal facilities and operations.

The Town's Department of Planning and Environmental Protection, with the assistance from staff from all departments, will be responsible for oversight of implementation of this CAP, tracking and monitoring progress towards meeting emission reduction goals, identifying proposed changes in policy, and employee education and engagement.

8.2 Financing and Budgeting

Many of the GHG reduction projects outlined in this CAP will produce cost savings for the Town. The Town will investigate utilizing these savings to fund other climate action measures.

The Town will also continue to seek out State and Federal Grant programs, partnering with NYSERDA on various energy reduction measures, taking advantage of available tools, guidance documents and software provided by the USEPA and USDOE to evaluate and reduce energy. Possible grants include the Climate Smart Communities Grant Program by the DEC, the Green Innovation Grant Program from the Environmental Facilities Corporation, the Water Quality Improvement Program by the DEC, and the LI Sound Futures Fund by National Fish and Wildlife Foundation.

8.3 Developing a Timeline

A schedule for implementing this CAP should be established to ensure the reduction measures proposed are implemented and the reduction goal of 20% is reached by 2030. This schedule will take into practical account Town budgeting and administrative and staffing needs involved in getting the projects put into action. Stakeholder input and involvement and financial and budget implications will also be taken into consideration during each phase of the projects as appropriate. The process of carrying out actions in this plan aims to improve on the 20% reduction goal based on ongoing evaluation and assessment as described in 8.5.

8.4 Community-wide Sustainability

The Town is heavily engaged in community-wide sustainability efforts as described throughout the past and in-progress municipal and community actions in this Municipal Climate Action Plan. The Town plans to begin the creation of a Climate Action Plan for the community in the very near future. This would detail actions involving the wider community that the Town would commit to in order to reduce greenhouse gas emissions and adapt to climate change. Recently the Town concluded a community wide survey on thoughts and beliefs about climate change and this will greatly influence the actions included in the community climate action plan.

8.5 Re-Inventory and Monitoring Progress

The Town expects that future Municipal CAP updates will include updated GHG inventories, targets, and reports on the progress realized as a result of implementing this CAP. The GHG inventory and CAP will be updated every 5 years to determine progress with reducing emissions, energy use and reaching our reduction target. The plan will also be updated periodically to reflect the following:

- results of ongoing energy assessments and evaluations of GHG emission reduction opportunities;
- identification of new measures that will be proposed/planned;
- savings accrued as a result of measures already implemented; and
- summaries of new policies that are created within government operations.

8.6 Commit to an Evolving Process

The Town of North Hempstead acknowledges that research and policy on climate protection are constantly improving and evolving. The actions in this plan are long term and additional GHG reductions may be achieved based on new information and as initiatives are completed and evaluated. The Town will continue to stay informed and consider new ideas and developments in science and technology. The Town is committed to updating this plan as needed.

Appendix A

TOWN OF NORTH HEMPSTEAD GREENHOUSE GAS EMISSIONS BY FACILITY BUILDINGS 2019

Property Name	Number of Buildings	Total GHG Emissions (Metric Tons CO2e)
Tully Park	1	1625.6
Harbor Links	4	663.3
Yes We Can Center	1	583.9
Solid Waste Management	3	470.2
Department of Public Works and Highway Yard	1	442.4
Town Hall 1	1	377.8
Manorhaven Beach Park	3	360.5
North Hempstead Beach Park	11	326.4
Clinton G. Martin Park	2	257.3
Town Hall 2	1	169.4
Clark Botanic Garden	5	122.6
Whitney Pond Park	3	118.1
Shore Road Highway Yard	2	83.8
Manhasset Valley Park	2	82.2
Animal Shelter	1	81.3
Harbor Hills Park	2	80.3
Transfer Station	1	71.1
Roslyn Community Center	1	69.5
Westbury Highway Yard	4	69.4
Albertson Highway Yard	1	66.6
Fuschillo Park	1	59.5
Martin (Bunky) Reid Park	5	58.9
Port Washington Adult Activity Center	1	39.4
Caemmerer Park	1	37
Broadway Town Park	1	22.8
Port Washington Parking District	1	21.3
Town Dock	1	18
Gerry Pond Park	2	14.3
310 Locust Lane, Roslyn Heights	1	13.9
Ridders Pond Park	1	13.6
Gold Coast Arts Center	1	12.7
Searingtown Pond Park	1	11.8
Merillon Little League Fields	1	8.1

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