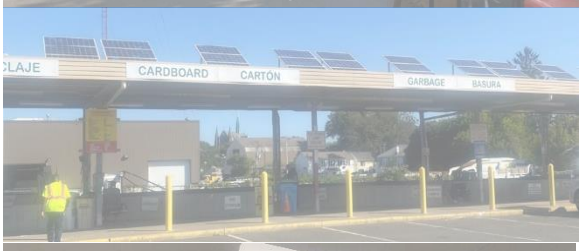
CITY OF STAMFORD

innovating since 1641

SUSTAINABLE STAMFORD:
A PLAN FOR CLIMATE ACTION

PHASE 1 - MUNICIPAL OPERATIONS
2024


CT 137
Glenbrook
Fifth Street
Rock Spring Road
Glenbrook
Northfield
Hope Street
Glenbrook Road
Summer Street
Grove Street
Stamford
US 1
Elm Street
Lockwood Avenue
Canal Street
South End
Fairfield Avenue
Cook Point


CARDBOARD
CARTÓN
GARBAGE
BASURA


EVconnecticut
4 HR PARKING
ELECTRIC VEHICLES ONLY

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A Note from the Mayor

October 17, 2024

Dear Stamford Residents,

In 2023, on Earth Day, I issued Stamford's first Climate Executive Order, directing my administration and city departments to take sustainable actions both internally and city-wide. This included completing the city's first Greenhouse Gas Inventory, expanding our food-scrap recycling and composting program, increasing energy efficiency in city facilities, and developing our first Climate Action Plan. I'm pleased to share the results of Phase 1 of this plan, which outlines 90 actions underway or recently completed that aim to reduce greenhouse gas emissions, decrease waste, create green jobs, increase resiliency, and advance environmental justice, with a focus on our most vulnerable populations.

To support these efforts, my administration has secured over $38 million in state and federal grants to prioritize investment designed to protect Stamford residents and our environment from the long-term impacts of climate change. We are upgrading our hurricane barrier, installing green infrastructure, expanding our EV charging network, and enhancing the safety and accessibility of our sidewalks and roadways. But our work is far from over. Over the next year, we plan to identify specific emission reduction targets, collaborate with residents and community stakeholders, and consider the significant climate commitments being made outside of City government.

I look forward to continuing our work to make Stamford a more sustainable, resilient, and inclusive city where everyone can thrive, now and for generations to come.

Sincerely,

Caroline Simmons

Mayor, City of Stamford

Acknowledgements

"Sustainable Stamford: A Plan for Climate Action" is a comprehensive strategy meant to protect Stamford from the adverse impacts of climate change. This plan evolved over the last 12 months with regular input from dedicated individuals committed to climate action and a sustainable future for Stamford. The City of Stamford would like to thank all who provided valuable contributions.

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SUSTAINABLE STAMFORD: A PLAN FOR CLIMATE ACTION

Last year was the hottest on the planet. 2024 is expected to be even warmer. Already, temperatures during the first nine months of 2024 were the highest ever recorded on the globe in the past 175 years.[2] [3] Global ocean temperatures also hit record highs over the past 12 months, as our seas endured the fourth mass–coral bleaching event since the 1990's, threatening 25% of marine life and the livelihoods of more than one billion people around the world.[4] In the US alone, disasters spurred by global warming resulted in 28 separate billion-dollar climate-related disasters in 2023. The US suffered heat waves, wildfires, and drought; hurricanes and cyclones; high winds, heavy precipitation, and flooding; plus, human injuries and fatalities. These extreme weather events caused nearly $93 Billion in damages in the US in 2023 – setting yet another record high for the most expensive annual costs ever measured.[5] [6] Steady increases in greenhouse gas emissions across all sectors, continue to trap the sun's heat and perpetuate continuous global warming, primarily caused by the consumption of fossil-fuels.[7] Evidence shows the adverse impacts of climate change are accelerating and intensifying — globally, nationally, and locally.

In the Northeast and throughout Connecticut, temperatures are mounting as well, outpacing increases measured in other areas of the country.[8] Stamford itself has suffered through multiple, alarming weather events in the 2000s, causing severe inland and coastal flooding, power outages, evacuations, and damages to infrastructure, homes, and property. In just 25 years, the sea-level in Stamford is expected to rise by at least 20 inches, hastening and compounding local climate-related challenges.[9]

These rapidly changing conditions require immediate and on-going solutions. **"Sustainable Stamford: A Plan for Climate Action,**" the City's first-ever comprehensive Climate Action Plan, begins to do does just that by offering an equitable, safe, and healthy path forward to reduce our carbon footprint and increase our coastal city's resiliency. Initiatives put in place and planned help to direct attention and investment towards actions designed to mitigate impacts and conserve resources citywide, particularly to disproportionately vulnerable communities.

As dense centers of populations and engines of economic activity, cities around the world are responsible for more than 70% of greenhouse gas emissions. Currently, more than half of the world's 8B people live in and around cities. By 2050, that share is expected to grow, with about two-thirds of the globe's population residing in urban areas.[10] Without abatement, greenhouse gas emissions generated from urban areas will worsen. But, cities themselves are in a unique position to protect the health and safety of their citizens, economies, and environments locally, to directly address local challenges and to leverage local opportunities. Stamford, as the second largest city in Connecticut with more than 136,000 residents, 1.2 million visitors annually, and 20 miles of coastline, can take actions now that will benefit all of Stamford

[2] According to NOAA's National Centers of Environmental Institutes, the first nine months of 2024 averaged an increase of 2.30°F (1.28°C) globally over pre-industrial levels (NCEI August 2024).
[3] Since record keeping began in 1850.
[4] Coral reefs support over one million species, protect our coastlines, and provide food and livelihoods for over 1 billion people (NOAA 2024) (CNN May 4, 2024).
[5] Since 1980, when the National Oceanic and Atmospheric Administration began keeping records.
[6] NCEIS 2024
[7] USEPA/IPCC 2024.
[8] US EPA 2016.
[9] CIRCA 2019.
[10] According to the UN, the world's population is projected to grow to 9.7B by 2050 with 68% residing in urban areas.

today and tomorrow, while bringing us into alignment with state, national, and internationally-agreed to climate goals.[11] [12] [13] [14]

The following pages lay out a combination of climate actions designed to work in unison to help meet Stamford's overarching climate goals. Climate actions underway and proposed, whether plans, programs, or policies, have the potential to significantly reduce greenhouse gas emissions, protect and conserve our environment, decrease waste, and increase resiliency, all while enhancing the health, equity, safety, and prosperity of all residents. Actions include continuing to improve our transportation network, expanding our renewable energy supply, creating more sustainable ways to treat and use land and water, and reimagining how we use and reuse goods and materials.

Plan Purpose

Stamford's first phase of climate action planning takes the city a step forward in its mission to fight climate change and in its efforts to protect residents and natural resources from long-term shifts in temperature and weather patterns. This document provides context and evidence of global, national, and local conditions and presents the city's climate goals and focused strategy areas. Primarily, this comprehensive plan takes stock of actions underway and planned, initiated within the city's own municipal operations which are designed to mitigate the consequences of climate change and adapt to new climate realities citywide. It highlights the nearly $40 million secured in state and federal grants leveraged to devise and invest in practical, implementable solutions to local challenges which will provide immediate and lasting relief plus widespread, equitable benefits. To further advance Stamford's climate goals, additional steps will follow in a second phase of climate action planning. Phase 2 will account for the substantial climate commitments made by Stamford stakeholders including residents, employers, community organizations, faith-based groups, non-profits, workers, and others. Specific next steps include: 1) clarifying, establishing, and adopting strategy area baselines from which to measure progress; 2) setting detailed, quantifiable targets and milestones by strategy area; 3) assigning key performance indicators to strategy areas and actions; and, 4) monitoring, evaluating and reporting on progress, making adjustments as necessary.

[11] This includes the 2015 Paris Agreement, where nations agreed to undertake efforts to stop global temperature from rising above 2° C and, more urgently, under 1.5° C from pre-industrial levels. More recently, nations finally agreed to "the begin of the end" of the fossil fuel era at COP 28, the annual Conference of Parties convened by the UN Framework Convention on Climate Change.

[12] C40 recommends that cities decrease their per capita emissions to 2.9 MT by 2030. ICLEI recommends a similar 63% emission reduction for Stamford which would result in a per capita emission decrease from 7.8MT per person to 2.9MT per person as well.

[13] National climate goals pledge to reduce GHG by 50% from 2005 levels by 2030 and achieve net-zero emissions by 2050.

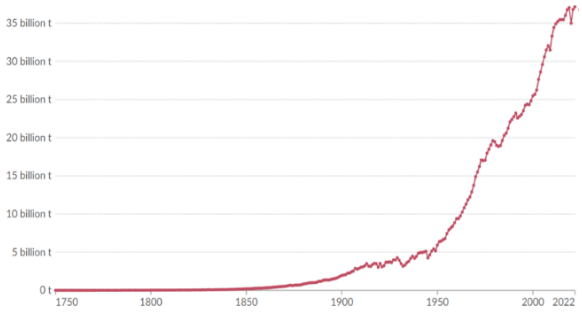
[14] The State of CT has committed to reducing GHG emission by 45% below 2001 levels by 2030 and 80% by 2050.

Current Conditions and Opportunity Costs

The latest global climate assessment report of the Intergovernmental Panel on Climate Change (IPCC)[15] verified that global temperature has already increased by 1.1 °C above preindustrial levels. According to the IPCC, this rise of global temperature is "unequivocally" caused by human-based activities resulting in increased greenhouse gas emissions (GHG), primarily from the combustion of fossil fuels, especially carbon dioxide (CO2). The IPCC also revealed that the annual growth rate of GHG emissions between 2010-2019, "was higher than in any previous decade on record" (IPCC 2023). Transportation, energy, industry, and buildings account for about 79% of total emissions, with the remainder contributed from agricultural (IPCC 2023).

Hotter temperatures have catalyzed severe weather events worldwide, including extreme heat, rain, drought, floods, wildfires, and hurricanes, pushing global systems closer to irreversible tipping points.[16] But, through immediate, equitable actions designed to reduce and capture greenhouse gas emissions, the frequency and severity of climate change disasters can be restrained.

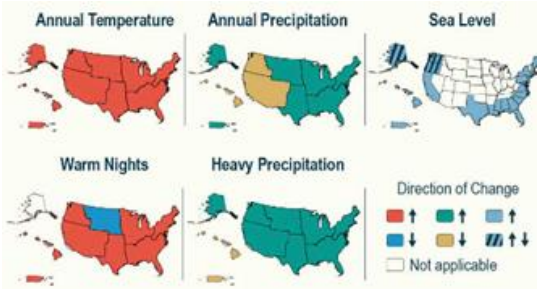
Figure 1- Global CO2 levels have steadily increased, with a brief pandemic dip. Annual worldwide CO2 levels reached 37.15 BMT in 2022.



Source: Our World in Data, 2024.

In the US, climate change is recognizable in every region in the country. Extreme weather events have resulted in lives lost; damage to property, infrastructure, and ecosystems; curtailed livelihoods, incomes, and economies; and, helped to deteriorate human health and well-being, with historically - marginalized communities disproportionately impacted.

Figure 2 - Climate Change is Impacting Every Region in the US



Source: Fifth National Climate Assessment, U.S. Global Change Research Program

Climate Disaster Costs Continue to Mount

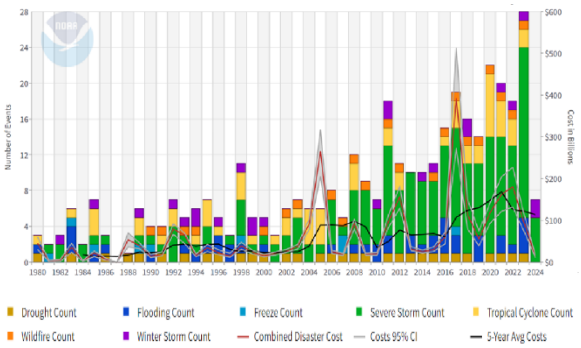
According to the National Centers for Environmental Information (NCEI), the US experienced 102 billion-dollar extreme weather events in the last five years alone, resulting in nearly 2,000 lives lost and $612B in economic losses, not including the costs of health care, lives lost or lost ecosystem services.[17] According to NCEI, "the US now experiences, on average, a billion-dollar weather or climate disaster every three weeks."

[15] IPCC Sixth Assessment Report, 2023.

[16] Ecological tipping points occur when climate changes lead to an irreversible, iterative loop where rising greenhouse gases trap the sun's heat leading to higher temperatures, which causes glaciers to melt and permafrost to thaw, resulting in warmer ocean temperatures and climbing sea-level rise, which in turn leads to more melting glaciers and thawing permafrost, and so on.

[17] Since 1980, economic losses from extreme weather events equate to about $2.7 trillion with 16,420 lives lost.

Figure 3 - Type and Cost of Extreme Weather Events in the US 1980 – May 2024, with 383 billion-dollar disasters causing over $2.7T in damages. 2023 hit a record high.



Source: National Centers for Environmental Information.

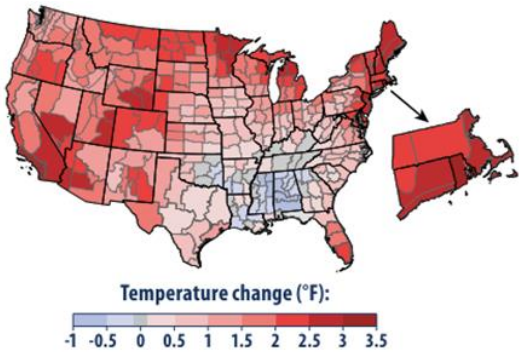
Substantial Climate Costs Expected

Opportunity costs associated with unabated climate change are staggering, consistently estimated to be in the trillions of dollars. Nevertheless, investments made today to reduce GHG emissions, will not only result in near-term and future environmental and social benefits, but will also "far outweigh" future costs, with global estimates of damages ranging from $1.3 Trillion to $3.1 Trillion per year by 2050 according to the World Economic Forum. Costs of international disaster relief funds alone could escalate from a high of about $12B per year to $20B per year by 2030.[18] Another study estimates that for every one degree rise in global temperature, US GDP could decline by 1.2%. However, if global temperature increases remain under 2° C, the US could avoid as much as $1Trillion in damages by 2050 and $8 Trillion in damages by 2100.[19]

Local Climate Change Predictions

In Connecticut, weather changes as a result of increasing global temperatures are acutely apparent as well. According to the US Environmental Protection Agency (US EPA) and the National Oceanic Atmospheric Administration (NOAA), the annual average temperature in CT has already risen 3.5 °F since the 1900s, twice as fast as any other contiguous US state. More troubling is that the hottest days recorded within the state occurred more recently, over the last two decades, providing evidence of acceleration.

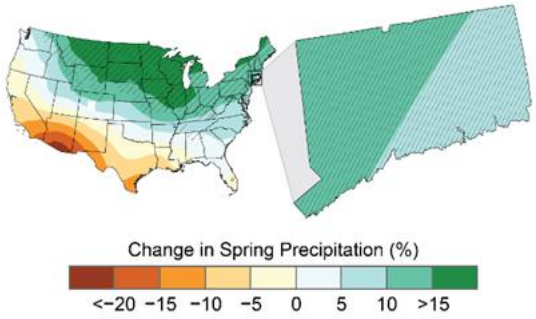
Figure 4 - Temperatures are increasing rapidly in CT and have already risen by 3.5 °F since the 1900s.



Source: Climate Change Indicators in the US, USEPA.

Precipitation in Connecticut is also on the rise. The greatest number of tidal flood days ever recorded, 43, also occurred more recently, between 2011-2020. Precipitation levels are expected to grow by 10-15% in the western portion of the state through mid-century, leading to additional coastal and inland flooding.

Figure 5-Spring precipitation in Western CT s expected to increase by 10% - 15% by mid-century.



Source: Climate Change Indicators in the US, USEPA.

Sea-level along the Long Island Sound is rising more rapidly in CT as well when compared to

[18] International Federation of Red Cross and Red Crescent Societies, 2019.

[19] Nuccitelli 2020.

global averages, rising by 10 –12 inches across the state vs. only 7-9 inches globally since 1900. CIRCA, the Connecticut Institute for Climate and Resilience Adaptation at the University of Connecticut, projects a 20-inch rise in sea-level along the state's coastline by 2050. The western portion of the state, including Stamford, is likely to experience the greatest sea-level rise and the highest storm surges according to CIRCA, as ten-foot storm surges once anticipated every 100 years are now likely to occur every ten, and flood events once occurring every ten years will likely occur every two.

The Case of Hurricane Ida and the Cost of Doing Nothing

Multiple, harsh storms and hurricanes have hit Stamford over the past 15 years, including Superstorm Sandy in 2012[20] and Tropical Storm Isaias in 2020. 2021 was particularly eventful. Within a few months' time, Stamford was struck by Tropical Storms Elsa, Fred, and Henri, followed by Hurricane Ida, the latter becoming the costliest natural disaster in the world that year.[21] All of these storms caused significant damage and flooding. However, the conditions that befell Stamford and its residents in the aftermath of Ida, described below, illustrate how a series of accelerated extreme weather events have the power to incapacitate cities and disproportionately impact already vulnerable residents and communities.

On the evening of September 1, 2021, Hurricane Ida struck Stamford with 150-mile per hour winds and 8 inches of rain, more than 2 inches per hour, as it traveled north from the Southeast US. Ida was the first hurricane to make landfall in CT since 1985 (CT Insider), forcing the National Weather Service to issue a flash flood warning. Ida damaged homes, left roads impassable, stranded residents, and flooded schools. By the next morning, the City had responded to 17 motor vehicle accidents, 18 water rescues, 600 power outages, more than 317 emergency calls, and had already towed 43 vehicles. Strawberry Hill School, the newest school in the district at the time, suffered $2M in damages to floors, classrooms, hallways, and offices. Immediate citizen and social services were urgently required including responses to Fix-It-Stamford requests, increased household debris pick up and sanitation services, extended transfer station hours, and assistance from FEMA and the Red Cross to deal with impacts (City of Stamford 2021). FEMA subsequently opened a disaster recovery office in Stamford through mid-December of that year to assist local storm victims. Overall, CT received over $34 million in direct federal assistance.

Hurricane Ida damages were notably exacerbated by several severe weather events preceding Ida including: 1) Tropical Storm Henri on August 22nd to 23rd with 3-5 inches of rain across CT; 2) Tropical Storm Fred on August 18th and 19th with 4 to 5 inches of rain; and, 3) Tropical Storm Elsa on July 9th with another 5 inches of rain in Stamford. The cumulative impacts of these storms left soils saturated and water levels already high before Ida even struck, leading to more toppled trees, more stranded residents and vehicles, and overwhelmed area resources, remediation services, and emergency personnel.

By October 22, 2021, CT Governor Lamont made an official request for a formal "Presidential Major Disaster Declaration for Remnants of Hurricane Ida." In his request, the Governor recounted the hardships of statewide residents and made special mention of Stamford. Ida left many residents trapped in their damaged homes, especially those that did not have the means, opportunities, or even available affordable housing choices due to limited inventory. In

[20] Losses from Hurricane Sandy topped $350M in CT. 80-mph winds and 9-foot storm surges left 600,000 customers without power and 3,000 homes damaged in the state (CIRCA 2022). Nationwide, FEMA paid out $4.4B in claims to 68,000 policy holders in 24 states after Sandy (FEMA 202x)

[21] Based on global insurance costs from large firms such as SwissRe and the International Emergency Events Database (EM-DAT) (Christian Aid 2021).

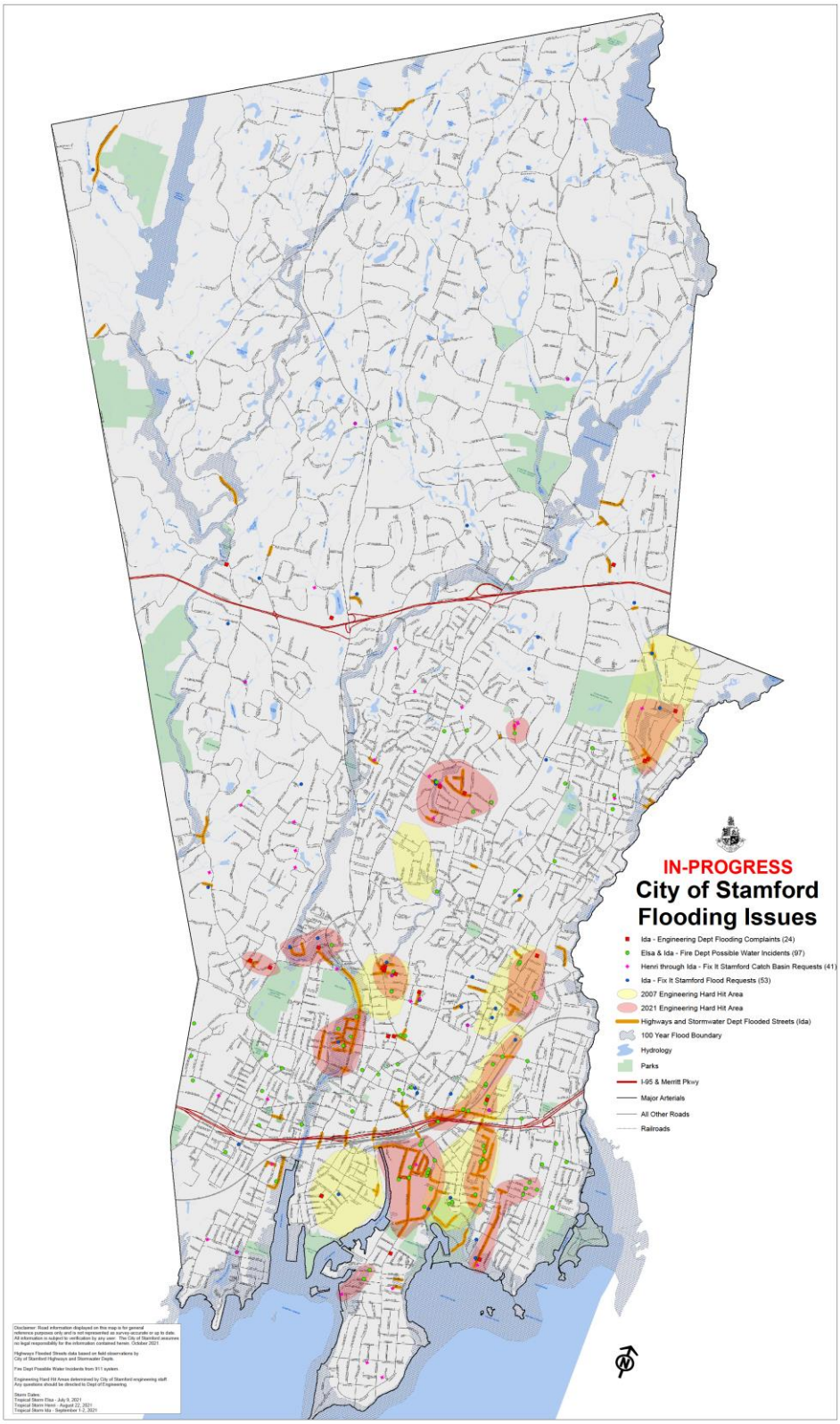
addition, many of the flooded homes were multifamily, where homeowners relied on rental income from additional tenants, leaving owners without financial support. Only 20% of Ida-damaged homes had flood insurance, as it was not required in many of the impacted areas. Numerous households had to replace mechanical systems, such as furnaces and hot water heaters, considered minor expenses according to FEMA, but significant for low-income households, costing around $10 -$12k each, according to the Governor's request.

Prioritizing actions which will help Stamford recover quickly from storms like Hurricane Ida, can lessen the severity, length, and costs of extreme weather events — not only in terms of dollars, but also to public health, economic growth, energy reliability, natural resources, and, even food security.

Figure 6 - Part of Farms Road, under construction at the time, collapsed and was washed away by Ida.

Source: Tyler Sizemore / Hearst Connecticut Media, Stamford Advocate.

Figure 7 - Map of Flooding Issues in Stamford. Hard hit areas in 2021 depicted in light red.

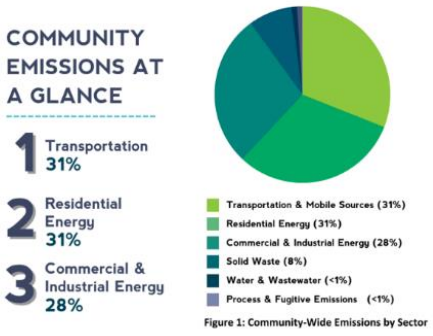


Plan Process and the Results of Stamford's GHG Inventory

The process for Stamford's first Climate Action Plan, began on Earth Day April 22, 2023, when Mayor Caroline Simmons issued the city's first Climate Executive Order. This Executive Order directed city agencies to address climate change, promote sustainability, and reduce the city's carbon footprint. It also called for the city to conduct its first greenhouse gas inventory. The completed inventory showed that gross carbon emissions totaled nearly 1.1 million metric tons (MMT) citywide in 2021, equating to 7.81 metric tons (MT) per resident. This aligns with other regional emissions inventories, with 7.78 MT per capita estimated in the Southwest CT Priority Climate Action Plan and Boston's per capita emissions of 8 MT.[22]

Community-wide, transportation was responsible for 31% of emissions, as was residential energy use. Commercial and industrial energy use accounted for 28% of community-wide emissions.

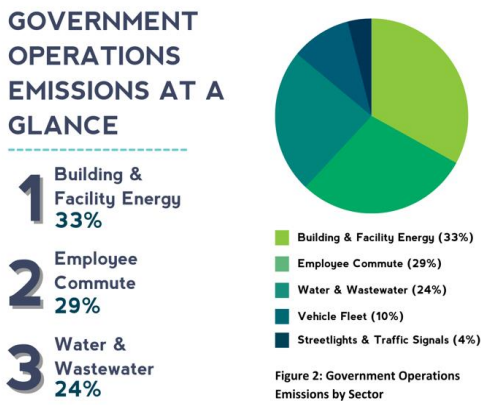
Figure 8- The City of Stamford Emitted 1.1 Million Metric Tons of CO2 in 2021 or 7.8 metric tons per person.



Source: 2021 Inventory of Community and Government Operations Greenhouse Gas Emissions, ICLEI Local Governments for Sustainability USA, 2023.

Carbon emissions generated by government operations were estimated as well, equating to 31,313 metric tons, accounting for about 3% of community-wide emissions. Within municipal operations, buildings and facilities, including city schools, contributed 33% of emissions. Employee commutes contributed 29% of emissions with water and wastewater responsible for 24%.

Figure 9 - Government operations represent about 3% of citywide emissions.



Source: 2021 Inventory of Community and Government Operations Greenhouse Gas Emissions, ICLEI Local Governments for Sustainability USA, 2023.

Also in the spring of 2023, Mayor Simmons appointed the Mayor's Climate Council to advise and inform the administration on climate concerns of residents and businesses. In addition to meeting regularly with the Mayor over the past year, the Mayor's Climate Council also held two public engagement sessions in May of 2023 where they mobilized community input. The Council also formed sub-committees around strategy areas including transportation, waste, green infrastructure, etc. and met with city staff to discuss initiatives. A survey was also distributed and tallied with results incorporated into the climate action planning process.

[22] City of Boston 2023.

Figure 10 - Building a Local Climate Action Plan

Source: Climate Action Planning Guide, C40

Over the course of the following year (and continuing today), internal quarterly update meetings were held to track the progress of the Mayor's Climate Executive Order. City of Stamford managers, Bureau Chiefs and staff reported on current and planned projects, including Transportation, Traffic and Parking, Recycling and Sanitation, Facilities and Sustainability, Land Use, Parks and Recreation, Fleet Maintenance, Public Health, Engineering, etc. The meetings also acted as a catalyst for interdepartmental working sessions to coordinate and collaborate on climate strategies. In fact, many of the actions detailed in this plan involve the joint efforts of multiple city departments.

To further engage the community, Mayor Simmons convened Stamford's first Local Climate Action Summit on January 25th, 2024. The Summit worked to highlight just some of the significant efforts already underway to combat the climate crisis citywide and to gain feedback from the public. It also offered a platform for state officials and other organizations to feature climate and sustainable resources available to the community, including CT DEEP, CT Green Bank, and CT Innovation.

Figure 11 - Mayor Caroline Simmons at Stamford's first ever Local Climate Action Summit

Plan Overview, Goals and Strategy Areas

"Sustainable Stamford: A Plan for Climate Action" highlights more than 90 actions already underway, including plans, programs, projects, and policies, with many first initiated by the Mayor's 2023 Climate Executive Order.[23] An additional 45+ actions are under consideration which could be introduced within the next five years. Actions are organized around three overarching goals. Each goal is further broken down into sub-goals by strategy area. Strategy areas include transportation, energy, land use, recycling and sanitation, air and water quality and more. Actions are designed to help meet each goal, but may also result in co-benefits, such as how reducing waste (Goal 2) decreases emissions but also decreases costs, and how increasing green space (Goal 3) helps to capture and store carbon while also positively impacting physical and mental health. Goals, subgoals and strategy areas are listed in the table below and are further described in the following pages.

Sustainable Stamford: A Plan for Climate Action 2024		
GOAL 1: Reduce Greenhouse Gas Emissions Citywide.		
1.1 Transportation	Reduce GHG emissions from transportation by: 1) increasing active, safe and sustainable transportation choices, and, 2) providing and encouraging alternatives to fossil-fueled single-occupancy vehicles.	
	1.1.1	Encourage and provide safe, functional, and accessible opportunities for active transportation trips for all ages and abilities citywide by: 1) continuing to expand Stamford's pedestrian and cycling networks; and, 2) and increasing safety.
	1.1.2	Expand Stamford's public and private electric vehicle charging infrastructure.
	1.1.3	Electrify Stamford's municipal fleet and transit vehicles.
	1.1.4	Increase transit choices and shared mobility options throughout Stamford.
1.2 Facilities, Buildings, and Energy	Reduce GHG emissions at municipal facilities and buildings citywide and increase the generation, use, and purchase of clean energy.	
1.3 Land Use and Zoning	Decrease the carbon footprint of our built environment.	
GOAL 2: Decrease Waste and Grow a Circular, Green Economy.		
2.1 Recycling, Sanitation, and Solid Waste	Divert waste from landfills and waterways	
2.2 Grow a Circular, Green Economy	Grow and foster a circular, green economy by expanding a green workforce, supporting local food production, repurposing materials, and instituting sustainable business practices.	
GOAL 3: Increase Resiliency and Advance Environmental Justice.		
3.1. Environmental Resiliency	Protect Stamford residents from the risks and hazards of climate change, including sea-level rise, flooding, and extreme heat using nature-based solutions.	
3.2. Parks, Green Infrastructure and Nature-based Solutions	3.2.1	Enhance Stamford's parks and green spaces to create a resilient, vibrant, and equitable public open space network for all to enjoy for generations to come.
	3.2.2	Incorporate green infrastructure measures wherever viable, including bioswales, rain gardens, etc.
3.3. Air Quality	Reduce indoor and outdoor air pollution and ensure all of Stamford has access to clean, healthy air.	
3.4. Water Quality, Conservation, and Access	Conserve and protect our inland waterways, watersheds, and beaches and ensure all residents have equitable access to the waterfront.	
3.5 Equity, Inclusion and Social Resiliency	Ensure all residents and businesses have inclusive, equitable access to all city benefits and services, including during extreme climate emergencies.	

[23] C40 defines climate actions as "the interventions made to achieve a given strategy. Actions typically involve policies, projects, programs, partnerships and other activities."

Goal 1: Reduce GHG Emissions Citywide

Actions below are designed to reduce GHG emissions from a variety of strategy areas including transportation, facilities, energy, land use and zoning. Actions include creating safe opportunities for walking and cycling, increasing renewable energy generation and consumption citywide, and encouraging and enforcing more sustainable development.

1.1 Transportation

1.1 Reduce GHG emissions from transportation by: 1) increasing active, safe, and sustainable transportation choices, and, 2) providing and encouraging alternatives to fossil-fueled, single-occupancy vehicles.

Stamford's transportation sector generates a little under 1/3rd of the City's GHG emissions, 31%, just as it accounts for a large share of emissions by sector in the US at 28%, and in CT at 40%.[24] It also offers multiple, high impact opportunities to lower GHG emissions and advance climate-friendly initiatives. For instance, shifting just 5% of all vehicle miles traveled (VMT) in the city to more active modes of travel, such as walking or biking, could reduce Stamford's carbon emissions from transportation by 4%.[25] If 15% of all trips were made with electric vehicles, emissions from transportation could be reduced by 12%.[26]

Transportation actions underway include improving sidewalks, especially near transit stops and parks, adding 11 miles to our 22 mile citywide bicycle network, implementing our Vision Zero Plan to eliminate roadway fatalities by 2032, and increasing the use of electric vehicles by providing convenient, easily-accessible EV charging stations. Investments promise widespread benefits. One Seattle DOT study showed that for every $1 invested in transportation actions to address climate change resulted in direct community benefits of $9.70, including $4.50 in safety benefits, $2.90 in health benefits, and $2.30 in neighborhood economic benefits.[27]

Current actions and actions under consideration are detailed below.

Figure 12 - Stamford's Bicycle Network consists of 22 miles constructed with another 11 miles planned.

[24] CT DEEP. 1990-2021 Connecticut Greenhouse Gas Emissions Inventory.
[25] Equal to14,437 MT (ICLEI 2023).
[26] Equal to 39,214 MT (ICLEI 2023).
[27] Climate Change Response Framework, Seattle Department of Transportation, 2023.

1.1 Transportation Climate Actions In the Works	
1.1	**Reduce GHG emissions from transportation by: 1) increasing active, safe and sustainable transportation choices; and, 2) providing and encouraging alternatives to fossil-fueled single-occupancy vehicles.**
1.1.1	**Encourage and provide safe, functional, and accessible opportunities for active transportation trips for all ages and abilities citywide by: 1) continuing to expand Stamford's pedestrian and cycling networks; and 2) and increasing safety.**
1.1.1.1	Through a $17M USDOT Reconnecting Communities and Neighborhoods Grant, the **West Side Neighborhood Connector Project** will re-stablish connections previously severed by the construction of I-95. The grant will cover pedestrian improvements to the West Side, Downtown, South End, and Stamford Transportation Center, reestablishing access to employment centers, education, transit, parks, and other community destinations and fill a 3,000-foot gap in the Mill River Greenway network with a 12-foot wide mixed-use path.
1.1.1.2	Stamford's **Vision Zero** initiative aims to decrease serious injury and eliminate all roadway fatalities by 2032. The **Vision Zero Action Plan**, supported by a Task Force created via a September 2022 Executive Order, is underway and will take community concerns and crash data to prioritize and direct capital resources to improving safety at high-injury locations. Improvements can include widened sidewalks, signage, crosswalks and other traffic calming measures.
1.1.1.3	The **West Main Street Corridor** will be revitalized through a $2.1M USDOT FHWA Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant.
1.1.1.4	An $800k Community Connectivity Grant from the CT Department of Transportation will fund the **Belltown Neighborhood Connectivity and Safety Projec**t to enhance connectivity to Barrett Park and implement pedestrian safety measures.
1.1.1.5	Through its **Safe Streets and Roads for All** program, another $1.65M grant from USDOT will fund sidewalk improvements.
1.1.1.6	Stamford's planned **Route Optimization Project** is designed to increase efficiency and reduce emissions throughout Stamford's vehicle fleet. Smart vehicle tracking systems will be installed and used to decrease the duration of routes, distance traveled, and idling of municipal vehicles.
1.1.1.7	In addition, the City is proactively working to formalize its **Transportation Demand Management (TDM) Policy** by establishing standard strategies required for new development. These TDM strategies and formalized policy, which will also standardize reporting requirements, are designed to decrease dependency on single-occupancy vehicles by increasing sustainable transportation choices, such as providing transit passes, ride share opportunities, bicycle parking, etc.
1.1.1.8	**Green infrastructure** measures are being installed in all new transportation projects wherever viable which work to improve water and air quality conditions. These measures can include new trees and bioswales which temper heat island effects, decrease flooding, filter stormwater runoff and air pollutants.
1.1.1.9	The City of Stamford has been awarded $223,608 in state funding for the planning and design of the **Weed Avenue Multi-Use Trail**. This initiative will enhance safety and mobility through multimodal and traffic calming improvements, pushing us closer to achieving our Vision Zero goals.
1.1.1.10	The **Lower Summer Street Pedestrian Promenade** opened for residents and visitors this past summer**.** The project transformed Lower Summer Street into a more pedestrian-friendly space with expanded outdoor dining, widened ADA-compliant sidewalks, and improved lighting, all meant to enhance the vibrancy and walkability of our downtown.

1.1.2	**Expand Stamford's Public and Private Electric Vehicle Charging Infrastructure**
1.1.2.1	The city has been awarded a state grant originating from USDOT's Charging and Fueling Infrastructure Grant Program to install 12 EV Direct Current Fast Chargers (DCFC) at the city's **Bedford Street Garage** and an additional 12 EV DCFC at the **Summer Street Garage**. Currently, the city offers the use of EV chargers at four municipal garages.
1.1.2.2	In addition, the city has also been awarded nearly $600k from CT DOT to install new dual-port EV charging stations potentially at the **Stamford Government Center and Bell Street Garage**.
1.1.2.3	Nine new charging stations are scheduled to be built as part of the transit-oriented development around the **Springdale Train Station.**
1.1.2.4	Another 38 EV chargers and 50 e-Bike charging stations at the **Stamford Transportation Center** have recently come online as well.
1.1.2.5	Stamford's **EV zoning ordinance** now requires that new development requiring 10 or more off-street parking spaces must equip **10% of total spaces** with easily accessible electric vehicle charging stations.
1.1.2.6	**Additional municipal sites** being assessed which could benefit from EV charging stations include the City's Vehicle Maintenance Facility, the Police Department and the WPCA.
1.1.2.7	Between 2021 and 2023, residents and businesses invested over **$1.5M in 72 EV charging stations** at homes and commercial properties.
1.1.3	**Electrify Stamford's Municipal Fleet Vehicles and Transit Vehicles**
1.1.3.1	Under a lease agreement, Stamford is in the process of upgrading its vehicles t0 the most up-to-date **fuel-efficient vehicles** with the option to transition to all electric vehicles once charging stations are functional.
1.1.3.2	Under a $26.4M USDOT FTA grant, **20 new electric buses** will be purchased for CT Transit's Stamford division.
1.1.4	**Increase transit choices and shared mobility options throughout Stamford**
1.1.4.1	Stamford has received a $2.5M grant to develop a shared, **micro-mobility pilot program** to provide on-demand transit service to residents within a five mile radius serving the West Side, Downtown Stamford, South End and East Side neighborhoods. The program aims to provide access to transit, employment centers, health facilities and more.
1.1.4.2	In addition, CT Transit has launched a **new Stamford bus route, #349,** serving the Springdale and Cove communities with service including the Glenbrook and Springdale train stations.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1.1.5 Transportation: Next Steps	
1.1.5.1	Continue to comprehensively plan, identify potential sites, and build out Stamford's **EV infrastructure** citywide.
1.1.5.2	Continue to **electrify Stamford's municipal fleet vehicles**, including police and fire department vehicles.
1.1.5.3	Define parameters and explore the possibility for an **electric refuse truck** pilot program. Diesel-powered vehicles accounted for 8.3% of estimated citywide emissions in 2021. Refuse trucks generate substantially more GHG than a freight truck or a school bus.
1.1.5.4	Develop a technical guide of **EV charging station standards** and specifications citywide.
1.1.5.5	**Electrify other small engine municipal gas-powered equipment**, including golfcarts, mowers and leaf-blowers.
1.1.5.6	Increase the safety of active transportation modes by implementing the **Vision Zero Action Plan** to enhance pedestrian safety and eliminate vehicular fatalities and serious injuries citywide.
1.1.5.7	Continue to expand Stamford's 22-mile bicycle network citywide including another 11 miles already planned.
1.1.5.8	Pursue funding to support the **Complete Streets** conversion of Bedford and Summer Streets with new pedestrian and bike accommodations and improved transit service. This project could reduce GHG emissions by more than 38k MT CO2 between 2025-2050,

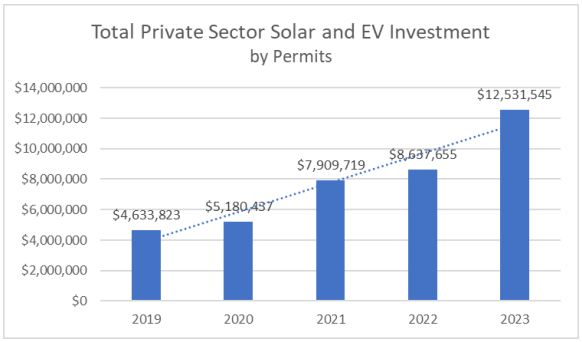
	from increased transit trips, reduced idling and congestion, shifts to active transportation modes, and increased carbon capture from green infrastructure and tree planting.
1.1.5.9	Explore the potential for a **bicycle-sharing pilot program** with geofencing Downtown.
1.1.5.10	Create connections for a **citywide green beltway** of Stamford parks and open space for walking and cycling.
1.1.5.11	Explore opportunities to connect with neighboring towns to seamlessly **link cycling and walking paths.**
1.1.5.12	Develop a **baseline** of citywide transportation trips by mode, utilizing US Census data.
1.1.5.13	Develop a **City Fleet Idling Mitigation** plan to reduce greenhouse gasses and improve air quality in Stamford and **enforce** CT DEEP's idling laws.
1.1.5.14	Continue to upgrade city **sidewalks** in the need of repair and into ADA compliance by prioritizing sidewalks near transit hubs, parks, and senior housing, including 25 already identified.
1.1.5.15	Initiate the transition to **clean school buses** citywide.
1.1.5.16	Electrify the **Cove Beach Tram**.

1.2 Energy

1.2 Reduce GHG emissions at municipal facilities and buildings citywide and increase the generation, use, and purchase of clean energy.

The transition to renewable clean energy, including the use of solar power and electric vehicles, is already occurring citywide. In fact, there has been significant private sector investment and growth in residential and commercial clean energy projects. Over the last three years alone, Stamford residents and businesses invested more than $29M to install solar arrays and EV charging stations, with the city issuing 749 building permits for clean energy projects between 2021 – 2023 (See Appendix for maps of project locations).

Figure 13 - Renewable residential and commercial energy projects continue to grow.



Source: Building Department, City of Stamford.

In addition, a number of Stamford commercial properties have capitalized on CT Green Bank's C-PACE[28] program as well. Stamford offices, hotels, and houses of worship have financed nearly $13.5M over 20 clean energy projects which include energy efficiency upgrades, renewable energy systems, and solar leases.

Within government operations, buildings and facilities accounted for 33% of all municipal GHG emissions, with the City responsible for maintaining about 1.7 million sq. ft. spread across

[28] CT Green Bank's Commercial Property Assessed Clean Energy (C-PACE) program provides support and financing for all types of clean energy and energy efficient upgrades and for all types of commercial properties.

nearly 70 facilities. Sustainability upgrades are proceeding at a number of facilities including replacing outdated Building Management Systems, transitioning to LED lighting, and installing energy-efficient HVAC systems. Lighting, energy efficiency and energy consumption audits are also underway at municipal facilities which will produce an accurate baseline to measure progress going forward. For example, lighting upgrades in about 15 municipal facilities under analysis have the potential to decrease emissions by more than 400 MT (RLE 2024) or 4% of municipal emissions.

Citywide, energy use by residential, commercial, and industrial facilities contributed 31% and 28% of GHG emissions respectively, nearly 60% of Stamford's community-wide total. Reducing emissions in these sectors will require decarbonization commitments from the private sector, though the impacts are promising. For example, if just 5% of existing commercial and residential buildings decreased their energy use by 20%, citywide emissions could decrease by about 3%.[29] Other reduction estimates are provided in the table below.

Potential Emission Reduction Estimates For Residential and Commercial Buildings by 2030		
Action	Percent	Metric Tons
Convert 5% of existing commercial and residential bldgs. per year to energy efficient building systems	3%	28,765
Electrify 5% of existing commercial bldgs. citywide per year	14%	153,426
Electrify all new and 1% of existing residential bldgs. annually	2%	23,273
Source: ICLEI, 2023.		

1.2 Energy Climate Actions In the Works	
1.2	**Reduce GHG emissions at municipal facilities and buildings citywide and increase the use, generation, and purchase of clean energy.**
1.2.1	Stamford is in the process of **upgrading its municipal facilities** to be more energy efficient and accountable by modernizing Building Management Systems, upgrading HVAC systems, and installing smart LEDs, including at the Government Center and Old Town Hall, which will work to reduce emissions and costs.
1.2.2	The City has established a **virtual net metering program** with long-term leases at three solar panel facilities in the state which have already generated more than $300k in utility credits applied to municipal facilities.
1.2.3	Following a recent analysis of municipal buildings and schools which assessed the potential for roof top solar based on condition and age of roofs, the City plans to issue its first **solar installation RFP** for four city schools including Westover Magnet School, Stamford High School, Rogers International School and Strawberry Hill.

[29]ICLEI 2023.

1.2.4	Bring sustainable building techniques and materials to the City's **$1.5B sachool construction plan**, the largest in the City's history. This includes the new Westhill High School which is being planned as the city's first LEED Net-Zero school.
1.2.5	Supported by a $2M multi-year grant from the US Departthe ment of Energy, Stamford is converting more than **7K street lights** to longer life, high-efficiency, smart LED fixtures. 3,000 have already been converted. Other deliverables will include a geocoded inventory and audit of the entire streetlight system within the City's rights-of-way. This transition will reduce costs and energy consumption.
1.2.6	A **lighting audit** is also underway at municipal buildings and schools which will identify opportunities for enhanced performance, better proactive controls and greater efficiency. Prioritized upgrades could include smart lighting systems, daylighting, LEDs, occupancy sensors, etc.
1.2.7	The City continues to manage electricity costs by **purchasing power from a third-party supplier** which reduces energy costs and increases predictability. Third party rates and energy trends are analyzed to lock in prices that are often lower than Eversource's standard service.
1.2.8	Residents and businesses have also invested in **renewable energy generation** and use. Between 2021 and 2023, the city issued nearly 750 permits for solar array installations and EV charging installations, equating to more than $29M in private sector investment throughout the City.

1.2 Energy: Next Steps	
1.2.9	Conduct an **energy consumption audit** of all facilities, which includes over 100 utility meters, to develop a baseline and identify and prioritize areas for improvement.
1.2.10	Develop a **smart streetlight system** citywide which would increase energy efficiency, collect data, and self-report outages, usage, and needed repairs.
1.2.11	Increase **renewable municipal energy** generation by identifying additional sites and installing additional solar panels on municipal facilities and schools.
1.2.12	Develop an **energy procurement strategy** to prioritize purchase agreements featuring renewable energy sources.
1.2.13	Provide **outreach to commercial businesses and homeowners** to identify federal and state incentives, rebates, and loans, including CT Green Bank programs, to decarbonize buildings.
1.2.14	Expand procurement of and availability of **renewable energy**, including wind and solar, for municipal facilities and homes and businesses citywide.
1.2.15	Evaluate the **permitting and inspection process** for residential and commercial clean energy projects to determine and remove any barriers and to expedite the process.

1.3 Land Use and Zoning

1.3 Decrease the Carbon Footprint of our Built Environment

The Land Use Bureau is primarily responsible for planning and regulating land use, buildings, and development citywide to ensure compliance with the city's zoning ordinance and local, state, and federal regulations. This includes the environmental protection of Stamford's wetlands, flood-prone, and coastal areas.[30] As such, it has the ability to advocate, influence, and regulate sustainable development citywide and address the climate crisis in a variety of ways.[31] [32]

For instance, zoning text changes currently under review offer multiple climate solutions and co-benefits across all three of Stamford's overarching climate goals. These could include securing carbon capture through the protection of mature trees; increasing the availability and use of renewable energy by requiring rooftop solar panels; or mitigating the urban heat island effect by requiring partial green roofs and/or street trees.

One approach designed to increase sustainability and resiliency in Stamford's built environment is the institution of the Stamford Sustainability Scorecard. The Scorecard, described below and accessed here, encourages, recognizes, and awards sustainability best practices in larger, new construction and renovation projects. Multiple sustainable elements are covered including energy efficiency, water consumption, air quality, active mobility choices, and more (See 1.3.1). Points are awarded per category, tallied, and converted to a corresponding letter grade. Once receiving a letter grade along with a Certificate of Occupancy, buildings must conspicuously display their grade. Receiving a B on the Stamford Scorecard is approximately equivalent to the US Green Building Council's LEED Silver certification, while an A+ is approximately equivalent to LEED Platinum.

Even more pivotal to Stamford's sustainable future, is the state-mandated, 10-year update of the city's comprehensive master plan led by the Bureau, where climate change, sustainability and resiliency are all expected to be major themes throughout. Guided by diverse community engagement, the vision-oriented plan will develop implementable strategies and keystone projects designed to support community aspirations for growth, preservation, and sustainability. The Plan will also include updates to the Stamford Affordable Housing Plan and the Community Development Department's Consolidated Plan. It will also include the city's first Equity Action Plan, required by the US Department of Housing and Urban Development. Coordinating these efforts creates the opportunity to prioritize and incorporate citywide climate goals and actions into the Master Plan. Additional actions are presented below.

[30] See also Section 3.4 for more details on the city's Environmental Review Board which protects these areas.
[31] See also Stamford's EV charger zoning requirement, 1.1.2.5, which serves as a model for other communities in the region.
[32] The Land Use Bureau also provides technical assistance to Stamford's Zoning and Planning Boards, the Zoning Board of Appeals, and the Environmental Protection Board.

1.3 Land Use and Zoning Climate Actions in The Works	
1.3	**Decrease the Carbon Footprint of our Built Environment**
1.3.1	To recognize and reward local sustainability achievements, the City has instituted the **Stamford Sustainability Scorecard** now required as part of the city's zoning ordinance for all larger residential and commercial developments, redevelopment, and conversions. Projects with at least 10 dwelling units and/or 10k sq. ft. or more, or, on lots where 20,000 sf or more are disturbed, must submit a completed Scorecard as part of the Land Use Bureau application review process. The Scorecard objectively measures a development's sustainability features by awarding points in categories such as energy use, landscaping, mobility, waste management, etc. The resulting grade must then be posted via a plaque in a conspicuous location of the property. A grade of B is approximately equivalent to LEED Silver.
1.3.2	For the first time, the City has required new developments within the **Stamford Transportation Center** district to attain a Sustainability Scorecard rating of B or higher.
1.3.3	The city's **Comprehensive Master Plan** update for 2025-2035 is underway. Climate change, sustainability and resiliency will be major themes throughout.
1.3.4	The Land Use Bureau is also working to **remove barriers and provide incentives** to encourage more sustainable building features. For instance, solar panels are now exempt from maximum building heights.
1.3.5	Additional **sustainability measures** required by the city's zoning ordinance for new developments include street tree planting approximately every 25 feet on certain lots, sidewalk installation for pedestrian access, and on-site bicycle parking/storage.

1.3 Land Use and Zoning: Next Steps	
1.3.6	Apply the Stamford Sustainability Scorecard to **public construction** and infrastructure projects and expand the Scorecard to **industrial buildings**.
1.3.7	Explore **mandating a minimum Sustainability Scorecard grade** in additional zoning districts, contextualized to neighborhood conditions such as density.
1.3.8	Explore additional zoning changes to advance sustainability including limiting the lot coverage of **impervious surfaces** and requiring a permit to remove **mature trees.**
1.3.9	Explore ways to remove barriers to more sustainable development including allowing certain obstructions such as for **solar awnings and canopies** over parking facilities.
1.3.10	Develop and institute citywide standards for the use and storage of **E-Bikes and E-Scooters.**
1.3.11	Explore the possibility of **requiring green roofs and/or rooftop solar** for new development.
1.3.12	Coordinate and **standardize zoning and transportation sustainability reporting** requirements for development.

Goal 2: Decrease Waste and Grow a Circular, Green Economy

Figure 14 - From food scraps, to dehydrator, to compost.
Stamford's Food Scrap Recycling and Composting Program processed 85k lbs. of food scraps last year.

Making Stamford a zero-waste city not only means diverting waste from landfills, but also learning how not to make waste in the first place.

2.1 Divert waste from landfills and waterways.[33]

The City of Stamford landfills 85,000 tons of waste per year at a cost of $93/ton. Reducing and diverting waste will not only decrease GHG emissions of carbon dioxide and methane, it will also decrease waste processing costs. Current initiatives designed to reduce waste include pop-up recycling events, curbside pick-up for textiles, and expansion of the City's Food-Scrap Recycling and Composting Program, supported by a $2.1M grant from the US EPA. Expansion of this program is expected to divert 150 tons of food waste and decrease carbon emissions by 288 tons.[34]

2.1 Recycling, Sanitation, and Solid Waste Climate Actions in The Works	
2.1	**Divert Waste from Landfills and Waterways**
2.1.1	With a USDA $45k grant, the city has launched its **food-scrap recycling and composting program**. This initial grant helped to fund the purchase of two dehydrators, one at the Katrina Mygatt Recycling Center and another at Fairgate Farm. During the first year of operation, the city diverted 42k lbs. of food-scraps from its waste stream. In Year 2, the Program diverted 85K lbs. This year, the Program is on track to divert over 100k lbs. of organic waste.
2.1.2	The City of Stamford was awarded a $2.1M SWIFR (Solid Waste Infrastructure Grant) from the US EPA which will **greatly expand its food-scrap recycling and composting**

[33] See also section 3.4.

[34] US EPA.

	program. This will include education and marketing of the program as well as funding the purchase and installation of four large dehydrators and 52 drop-off bins to be installed in strategic locations throughout Stamford. Potential sites for dehydrators could include Mill River Park, Westhill High School, and Scofield. Once the program is fully equipped and operational, the city could process and divert 300k - 400k lbs. of food-scraps annually, reducing carbon emissions by more than 288 tons (US EPA)
2.1.3	Other programs designed to **divert usable items** from the waste stream include the Recycling and Sanitation's Take It or Leave It Shop and Book Swap at the Katrina Mygatt Recycling Center.
2.1.4	Nearly 85% of textiles, including clothes, shoes, handbags, belts, are discarded in landfills, accounting for 6% of municipal residential waste in the US according to the EPA. This equates to about 85lbs of textiles per person per year that could be repurposed. To help divert textiles from landfills, the City has recently partnered with HELPSY. Residents can now request **curbside pick-ups of textiles** through Helpsy.
2.1.5	The City also holds additional recycling events periodically such as at **Scofieldtown Park** to collect textiles, electronics, and yard waste.
2.1.6	To further encourage recycling, the City has partnered with **EyeRecycle** to conduct **pop-up mobile events** where residents can redeem 5¢ deposit for plastic bottles, cans, and glass bottles for cash on the spot.
2.1.7	Stamford's **Mandatory Recycling Ordinance** requires the maximization of recycling and reuse of construction materials as well as the minimization of demolition debris for all residential and commercial renovations and new construction projects in accordance with state laws.
2.1.8	The **Water Pollution Control Facility**, located in Stamford along the East Branch of Stamford Harbor, is designed to treat 24 million gallons of wastewater per day. Through a four-step process, treated wastewater is released and remaining solid materials are processed, dried and converted into pellets. These pellets are then repurposed and transferred to agriculture facilities in the region to use as fertilizer.
2.1.9	To better protect the Rippowam River watershed, the City has initiated the **Perna Lane** Sewer Project, which will extend sanitary sewers to the Perna Lane area. This will replace aging septic systems east of High Ridge Road where small lot sizes prevent code compliance of septic system replacements.
2.1.10	Recent WPCA **plant upgrades**, plus participation in **Eversource's Strategic Energy Management** program has resulted in an increase in energy efficiency and reductions in methanol use which decreased costs and emissions.

2.2 Grow a Circular, Green Economy

2.3 Grow and foster a circular, green economy by expanding a green workforce, repurposing construction materials, supporting local food production, and establishing green budgeting and sustainable procurement criteria for city purchases and projects.

[35]Moving Stamford away from the typical single-use consumption cycle of goods and materials, to a more sustainable, circular consumption cycle requires ongoing behavioral changes citywide from industry, government, and residents. [36] Reduce, reuse, recycle has evolved to include repurpose, repair, and even refusal of unsustainable products and materials. Resources and raw materials need to be manufactured cleanly and utilized in durable products designed to last with extended life-cycles and/or with multiple purposes. Ideally, finite materials should continue to be circulated until all value is exhausted. This circular approach to economic activity leads to innovation, technological advancement, waste elimination, and resource optimization — all of which spurs economic development and job growth.

Prioritizing local industries specializing in sustainable manufacturing, technology, and/or services, not only avoids GHG emissions from goods movement and distribution, it also works to fortify Stamford's future by expanding its green workforce and creating economies of scale. Supporting local food production, repurposing construction debris, and instituting sustainable procurement and green budgeting techniques within government operations are all strategies to help meet this goal.

Stamford can take further action to engage its growing green workforce and emerging climate businesses and technologies, through increased outreach, training, and collaborations with startups, community organizations, schools, and youth groups. Sectors likely to experience job growth as part of the transition to a greener economy include utilities, especially those involved in renewable energy installation and maintenance, battery storage, energy-efficiency projects, sustainable construction techniques, EV infrastructure and repairs, and waste management, especially composting.

In the clean energy industry alone, CT clean energy jobs grew by 2.9% in 2022, outpacing total statewide job growth of just 1.9% that year. The industry also contributed $7.68B to the state's gross regional product, representing an 8.5% annual growth, with more than 44k clean energy jobs statewide.[37]

2.2 Grow a Circular, Green Economy Climate Actions in the Works	
2.2	**Grow and foster a circular, green economy by expanding a green workforce, supporting local food production, repurposing materials, and instituting sustainable business practices.**
2.2.1	The City of Stamford supports local food production at **Fairgate Farm** and its mission to increase community access to local, healthy food and produce.

[35] Freepik.

[36] The Zero Waste International Alliance defines zero waste as "the conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health."

[37] CT Green Bank, 2024. Clean energy job growth represented 5% of the state's total job growth that year.

2.2.2	The City is pursuing partnerships and **pilot programs** with start-up climate tech companies supported by CT Innovation and the Governor's Innovation Lab to promote the growth of local green businesses.
2.2.3	To incentivize the repurposing of construction materials, the **Stamford Sustainability Scorecard** awards additional points for recycling at least 50% of demolition and construction waste.

2.3 Reduce Waste and Grow a Circular, Green Economy: Next Steps	
2.3.1	Explore the expansion of **Stamford's Food-Scrap Recycling** program to restaurants, schools, commercial users, and municipal facilities.
2.3.2	**Reuse and repurpose** goods and materials where applicable from city engineering and capital projects.
2.3.3	Develop a green economy action plan to grow a **diverse, equitable green workforce and support local climate industries and technologies.** Create partnerships, collaborations and training programs with local businesses, schools, and youth groups to ensure inclusive and equitable access to jobs for all genders, race, ethnicities, and disabilities.
2.3.4	Develop and adopt **green budgeting** and **sustainable procurement** criteria for municipal projects and purchases.
2.3.5	**Enforce** the city's **Mandatory Recycling Ordinance** for renovation and construction projects citywide.

Figure 15 - Linear v Circular

A circular economy strives to eliminate waste and spur innovation through the recovery and long-term reuse of finite resources. Zero-waste cities must move away from the typical linear "take, make, waste" consumption cycle.

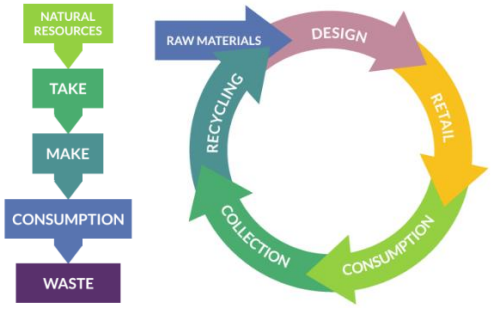


Figure 16 - Repurposing Excavated Brownstone at the Mill River Greenway

Goal 3: Increase Resiliency and Advance Environmental Justice.

The national Bipartisan Infrastructure Bill and the Inflation Reduction Act have brought unprecedented investment to states and cities to address climate change. These statutes, under the Justice40 Initiative, directs 40% of investment to 'disadvantaged communities,'[38] historically overburdened and disproportionately impacted by climate change due to disinvestment, poor air quality, traffic proximity, and concentration of hazardous facilities. Within Stamford, these same conditions can be found (See Figure 17). Some of the most vulnerable areas at the greatest risk of excessive heat, flooding, and air pollution, are found within low income and disadvantaged communities (LIDAC) in Stamford. A review of multiple independent screening tools used to evaluate climate vulnerability by census tract, block and block group, confirm that Stamford's lowest income communities are also the most overburdened and therefore most susceptible to the adverse impacts of climate change (See Figures 17-20, 40 and 41). [39]

Stamford's West Side neighborhood, for instance, is among the city's most diverse and most under-resourced low-income neighborhood, suffering from deteriorating housing stock, aging infrastructure, income inequality, extended unemployment, and economic disinvestment — all while overburdened by environmental hazards and threats, including poor air quality. [40] These conditions contribute to chronic health problems, high rates of asthma, emergency department visits, and cardiovascular diseases. Initiatives such as the "West Side Neighborhood Connector Project" funded through USDOT's Reconnecting Communities and Neighborhoods Grant,[41] and the "Cooler Stamford: Heat Resilience Action Plan," funded through CT DEEP's Climate Resiliency Fund, target the West Side to address inequalities.

Overall, Goal 3 and its corresponding actions are meant to safeguard all of the city's residents and neighborhoods from mounting health, economic, and environmental risks accelerated and exacerbated by climate change. [42] The actions work to create a more inclusive, equitable and responsive government where climate-related burdens and benefits are equally shared in the hopes of advancing environmental justice and ensuring climate justice citywide.[43] The climate actions discussed below are designed to make all of Stamford better equipped to quickly recover from storms and extreme weather conditions fueled by climate change. Actions include nature-based solutions such as installing green infrastructure and enhancing parks and open space, while other actions are people-centered, designed to support diversity, equity and inclusion citywide through a more accessible and responsive government. Actions to increase environmental and social resiliency goals span multiple disciplines and strategy areas and are presented below.

[38] The Justice 40 initiative identifies disadvantaged communities most in need of investment by assessing eight factors: "climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development."

[39] The tools are: the Climate and Economic Justice Screening Tool (CEJST) developed by the White House Council on Environmental Quality to identify communities that qualify for Justice40 funds; 2) the CT Environmental Justice Mapping tool ;and, 3) CIRCA's Climate Change Vulnerability Index (CCVI).

[40] See Appendix for socio-economic conditions of West Side census tracts.

[41] See action 1.1.1.1 above.

[42] The US EPA defines environmental justice as "the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability" (so that all) "have equitable access to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship…"

[43] Climate justice goes further in that it recognizes the unequal and disproportionate burdens of climate change on already vulnerable populations, while calling for the equitable distribution of resources and benefits associated with climate change actions. (UC Center for Climate Justice, Yale Climate Connections).

Climate Change Vulnerability in Stamford

The CT Environmental Justice Mapping Tool, developed by CIRCA and funded by CT DEEP, maps communities vulnerable to climate change by indexing an area's pollution burden with a variety of social, economic, and health conditions to determine an area's cumulative burden. The maps below identify Stamford communities most vulnerable to excessive heat and floods. The darker the color, the greater vulnerability. CIRCA's Climate Change Vulnerability Index uses multiple variables to estimate an area's vulnerability based on its exposure, sensitivity, and adaptive capacity.

Figure 17 - CIRCA Heat Vulnerability Index

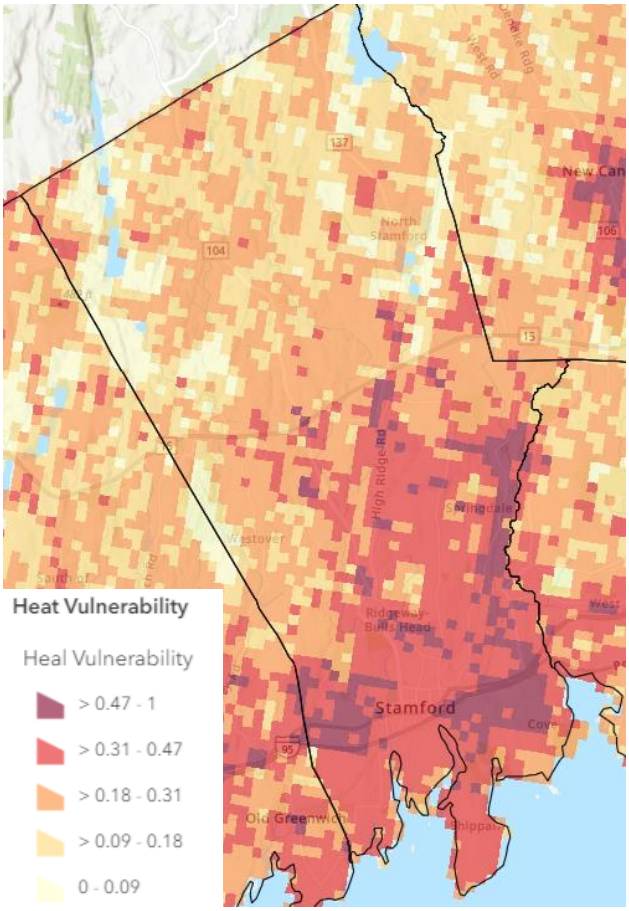


Figure 18 - CIRCA Flood Vulnerability Index

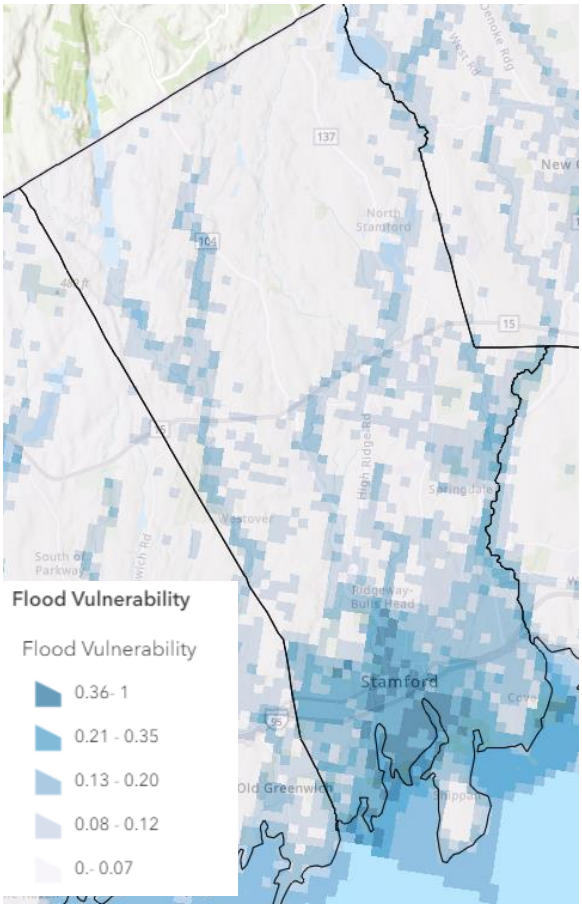
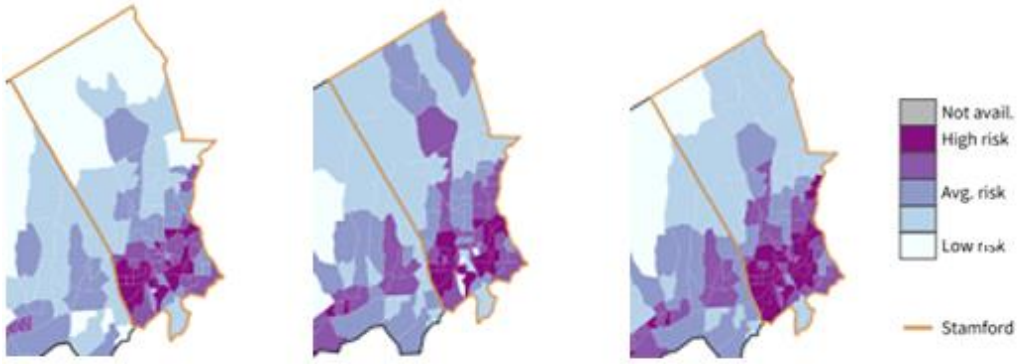


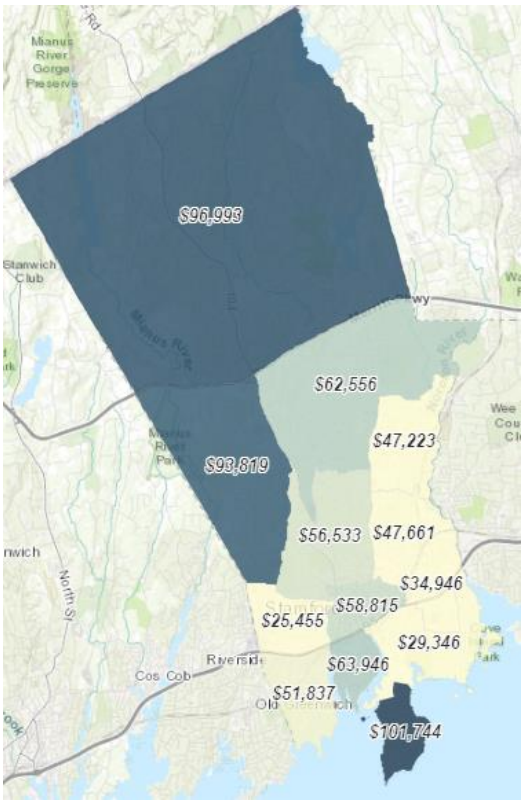
Figure 19 -Concentration of Air Toxins, Lead Paint Exposure and Proximity to Hazardous Waste by Census Tract



Source: Stamford 2023 Equity Profile, Data Haven.

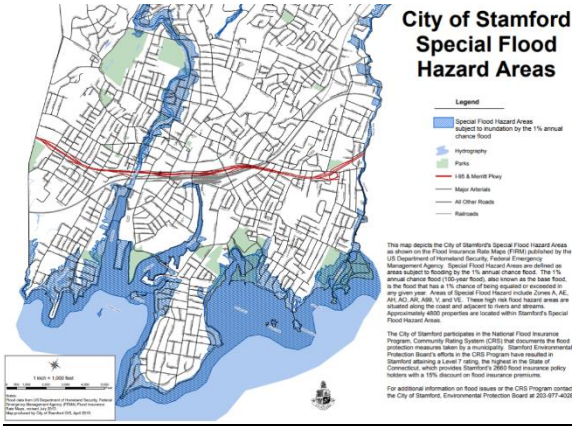
Furthermore, as depicted above and below, the areas with the highest concentration of specific environmental risks, also correspond with the lowest income neighborhoods.

Figure 20 - Average per Capita Income by Neighborhood Statistical Area



3.1 Environmental Resiliency

3.1 Protect Stamford residents from the risks and hazards of climate change, including sea-level rise, flooding, and extreme heat.



With about 20 miles of coastline along the Long Island Sound, sea-level rise is one of the most formidable climate threats facing the city today. According to the nation's Fifth Climate Assessment, sea-level rise measured in the 20th century was greater than in any other century in the last 3,000 years. In Stamford, there are 1,700 properties found within the city's Coastal Boundary Flood Hazard Area alone. Even with the support of Stamford's Hurricane Barrier and Flood Protection System,[44] outdated, overloaded drainage systems citywide exacerbate urban flooding from inland waterways during extreme weather events. Actions already underway designed to mitigate flooding, include the repair of the city's Hurricane Barrier and additional neighborhood projects funded by CT DEEP's Climate Resiliency Fund. Actions detailed below are meant to protect the city's residents. coastline, infrastructure, natural resources, and biodiversity.

3.1 Environmental Resiliency Climate Actions in the Works	
3.1	**Protect Stamford residents from the adverse impacts of climate change, including sea-level rise, flooding, and extreme heat.**
3.1.1	Funded through CT DEEPs Climate Resiliency Fund, the City was awarded $210,750 to develop the "**COOLER Stamford: Heat Resilience Action Plan**" focusing on the West Side, Waterside and Downtown neighborhoods. The study will establish and utilize heat sensor data and other environmental and community information to develop a neighborhood heat plan designed to mitigate extreme heat and decrease heat island effects in those areas. 17 heat sensors have been installed.
3.1.2	The **Toilsome Brook Flood Resiliency Plan**, supported by a $598,125 CT DEEP Climate Resiliency Fund, aims to evaluate flooding and drainage issues to determine actions which can be implemented to further protect the Ridgeway-Bullshead neighborhood. The goal is to do a hydrologic and hydraulic analysis as a basis for developing concept level plans, prioritizing nature-based solutions.
3.1.3	With a $481K CT DEEP Grant, the **Cummings Pond Area Flood and Ecological Resiliency Plan** will also include a hydrologic and hydraulic analysis to help determine ways in which flooding at Cummings Pond can be mitigated. Run-off, exacerbated by an overcapacity, 1930's, stormwater outfall which empties into the pond, has contributed to the overgrowth of phragmites, an invasive plant species threatening pond biodiversity.
3.1.4	Stamford's **Coastal Flood Resiliency Plan** is underway supported by a $150k FEMA Grant and covers areas south of I95 within the coastal boundary area. CIRCA (Connecticut Institute for Resiliency and Climate Adaptation, UConn) will provide flood analysis and modeling for the plan.
3.1.5	The City received a $2.73M Building Resilient Infrastructure Community Grant (BRIC) from FEMA to upgrade and repair Stamford's **Hurricane Barrier** and improvements to the Dyke Lane, Cummings and Wampanaw Storm Water Pump Stations
3.1.6	Dredging at **Cove Island Park Marina** is underway and Phase 1 is complete.

[44] Stamford's Hurricane Barrier was built in the 1960's to protect 640 acres in the city.

Figure 21 - Routine flooding at the entrance to Cummings Park.

3.2 Parks, Green Infrastructure, and Nature-Based Solutions

Parks and green spaces supply a multitude of vital human and environmental benefits. Green spaces work to decrease temperature, protect biodiversity, improve air quality, filter stormwater, support mental wellness, and, offset GHG emissions by capturing and storing carbon.

Stamford is home to over 1,000 acres of open space, including its parks, public beaches, recreation complexes and nature preserves. The recently-released "Stamford Citywide Parks Strategic Plan" identified and prioritized investments to enhance the City's public spaces, so that all Stamford residents are within a 10-minute walk to a quality public park.

The plan also supported the development of the "Stamford Parks Community Partnership, a new 501(c)(3) non-profit, to foster collaboration between the City, local businesses, and residents in developing and maintaining "Stamford's parks system and recreational areas. This Partnership will leverage private funding to ensure Stamford's parks are accessible for future generations.

Other actions detailed below include increasing coastal resiliency, addressing flooding around Toilsome Brook and Cummings Pond, installing bioswales and street trees, removing invasive species in parks and rights-of-ways, and building out the Mill River Greenway.

Figure 22 - This downtown bioswale filters stormwater run-off, decreases flooding and improves air quality.

The first image below shows the bioswale when it was first installed in February 2023. The next shows its growth today.

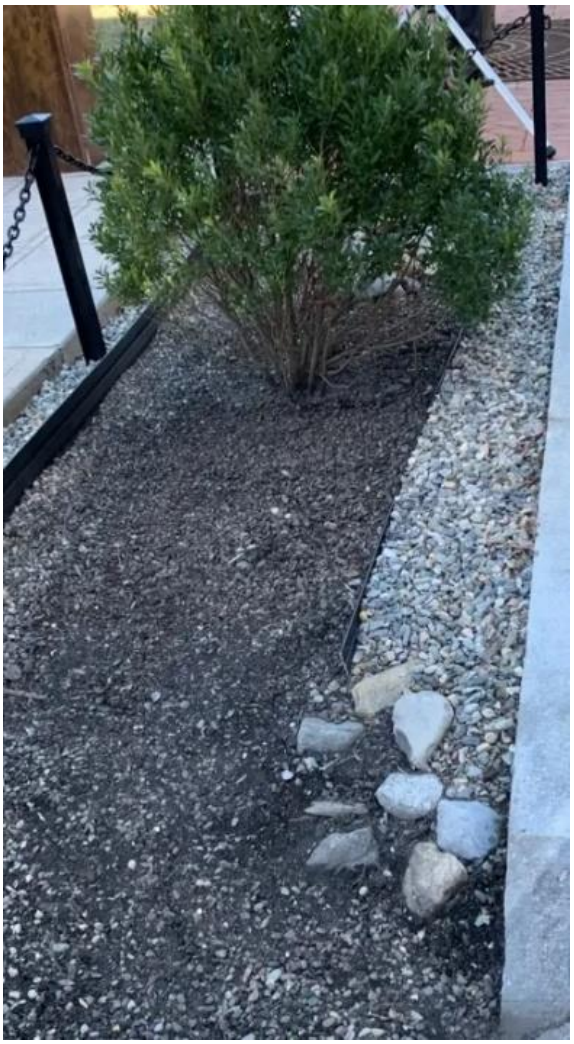
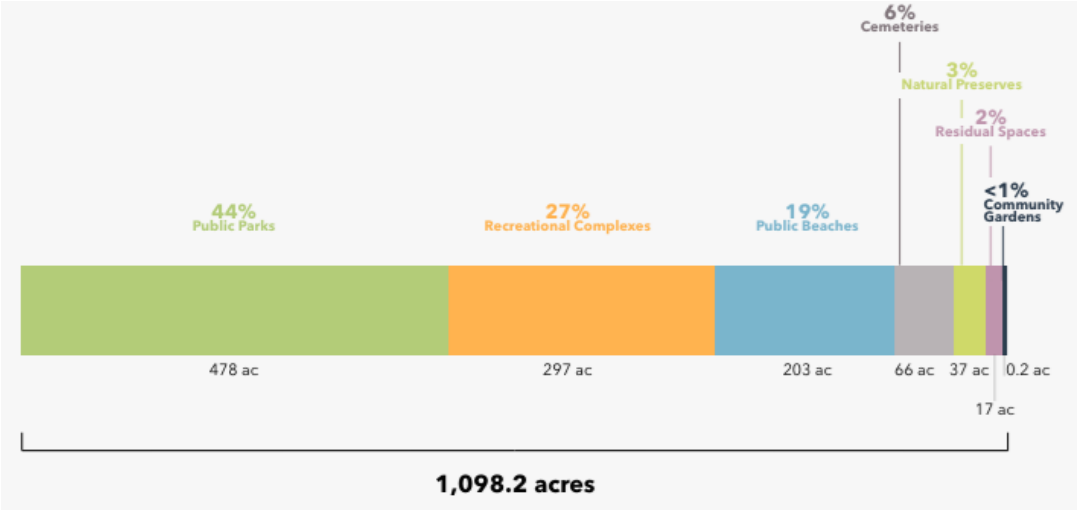


Figure 23 - Improvements at Boccuzzi Park

Figure 24 - Stamford is home to more than 1,000 acres of open space including parks, public beaches, recreation complexes, nature preserves and more.



Source: Stamford Citywide Parks Strategic Plan (See Appendix for snapshots of Stamford Parks).

Figure 25 - Mayor Simmons announcing the launch of the Parks Community Partnership

Figure 26 - Opening of Barrett Park Playground

Figures 27 and 28 offer two examples of invasive species prevalent in Stamford.

Figure 27- Mugwort at the Mianus River Park

Figure 28 - Porcelain berry in Kosciuszko Park

3.2.1 Parks, Green Infrastructure, and Nature-based Solutions Climate Actions in The Works	
3.2.1	**Enhance Stamford's parks and green spaces to create a resilient, vibrant, and equitable public open space network for all to enjoy for generations to come.**
3.2.1.1	Stamford recently released its **Citywide Parks Strategic Plan** which created a framework to manage and invest in the sustainability of our parks, beaches, and trails. The plan created goals, priorities, and action items to restore and enhance the City's parks to improve quality of life, public health, address climate issues and ensure all residents have access to a quality park within a **ten-minute** walk.
3.2.1.2	The **Stamford Parks Community Partnership** is an innovative, newly established 501(c)(3) non-profit created to foster collaboration between the City, local businesses, and residents in developing and maintaining Stamford's parks system and recreational areas. This Partnership will leverage private funding to ensure Stamford's parks are accessible for future generations. Several corporate commitments have been made including a $100,000 dollar-for-dollar match from Dalio Education and $100,000 from Synchrony Foundation. Click here for more information on this partnership.
3.2.1.3	Through a $1M grant from the Department of Agriculture's Urban and Community Forestry program, Stamford is conducting a street tree GIS - based inventory and the "**Growing Stamford Together**" planting project. The inventory will identify street tree planting opportunities with the goal of planting 400 additional trees focusing on Downtown, South End, West Side, Cove, East Side, South End and Waterside. The inventory will cover all trees in the City's 380-mile right-of-way and will record the location, species, size, condition, and proximity to utilities. It will also identify any empty tree pits. New trees will be installed over the next three planting seasons - this coming fall, next spring, and the following fall. (A tree inventory of the Stamford Downtown Special Services District was completed in 2022.)
3.2.1.4	Stamford is also conducting a **Parks Invasive Species Study** which will create a GIS database of trees in all parks over one acre to establish a baseline and costs associated with a 5-year management plan. Training sessions will be held with park staff and volunteer groups on maintenance techniques for reducing invasive species.

3.2.2 Green Infrastructure Climate Actions in the Works	
3.2.2	**Incorporate green infrastructure measures wherever viable, including bioswales, rain gardens, and/or natural floodplain buffers such as dunes, wetlands, etc.**
3.2.2.1	**Multiple bioswales** are being installed wherever viable depending on the depth of existing utility lines, as part of transportation capital projects and intersection improvements across the city including at: Lower Summer, Broad Street, Lower Atlantic, North State Street, Atlantic/Main, Pacific Street and West Main Street.
3.2.2.2	As part of the **Springdale School** stormwater management paving and drainage project, a **rain garden** was installed to act as an on-site teaching tool for water quality and conservation. Drainage from the parking lot is designed to flow into the rain garden.
3.2.2.3	With a $1M federal grant, additional bioswales will be built to decrease flooding and filter storm-water runoff, increasing resiliency, and protecting the water quality of the Long Island Sound. Sites have been selected for **20 new bioswales**.

3.2.2.4	Construction of the **Mill River Middle Corridor** is underway, between Tresser Boulevard and Richmond Hill which will act as a natural buffer for flooding and rising river levels as well as providing waterfront access and connection to the Mill River Greenway.
3.2.2.5	As part of a $3M upgrade, green infrastructure measures will be installed at the **Government Center**, along with ADA sidewalk improvements, native species plantings, and a parking area for local food trucks.

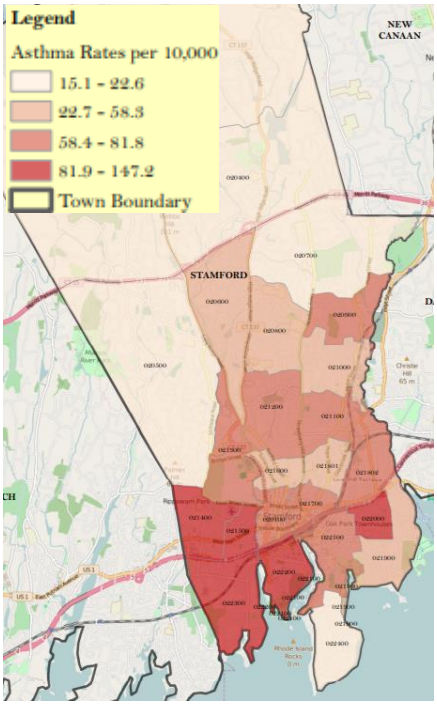
3.3 Air Quality

3.3 Ensure Stamford residents have access to clean, healthy air.

The City of Stamford's Public Safety, Health, and Welfare Department seeks to promote wellness, prevent disease, and proactively protect the health and safety of its residents. As such, the Health and Human Services Department oversees air quality monitoring citywide. Currently, the City maintains 10 Purple Air quality monitors which measure levels of particulate matter (PM 2.5) in the air and shares real-time results via a dynamic map which can be accessed here. Particulate matter is generated from a variety of sources including vehicle exhaust and wildfires. These pollutants adversely impact health including chronic cardiac and respiratory diseases, such as asthma. In fact, some of the lowest income areas in Stamford, including the West Side, are also home to the highest asthma rates, especially along the I-95 corridor.

To gauge how other air pollutants impact local air quality, the city has secured a US EPA grant to enhance its air quality monitoring program in Stamford's South End and West Side neighborhoods. New, enhanced air quality monitors will not only measure PM 2.5 levels but will also detect levels of nitrogen dioxide (NO2) and ozone (O3), both of which also contribute to worsening air quality and pollution. This project aims to: 1) build capacity to measure air pollution in real-time, 2) provide data to support strategies that mitigate air pollution; and, 3) ultimately, improve local health outcomes.

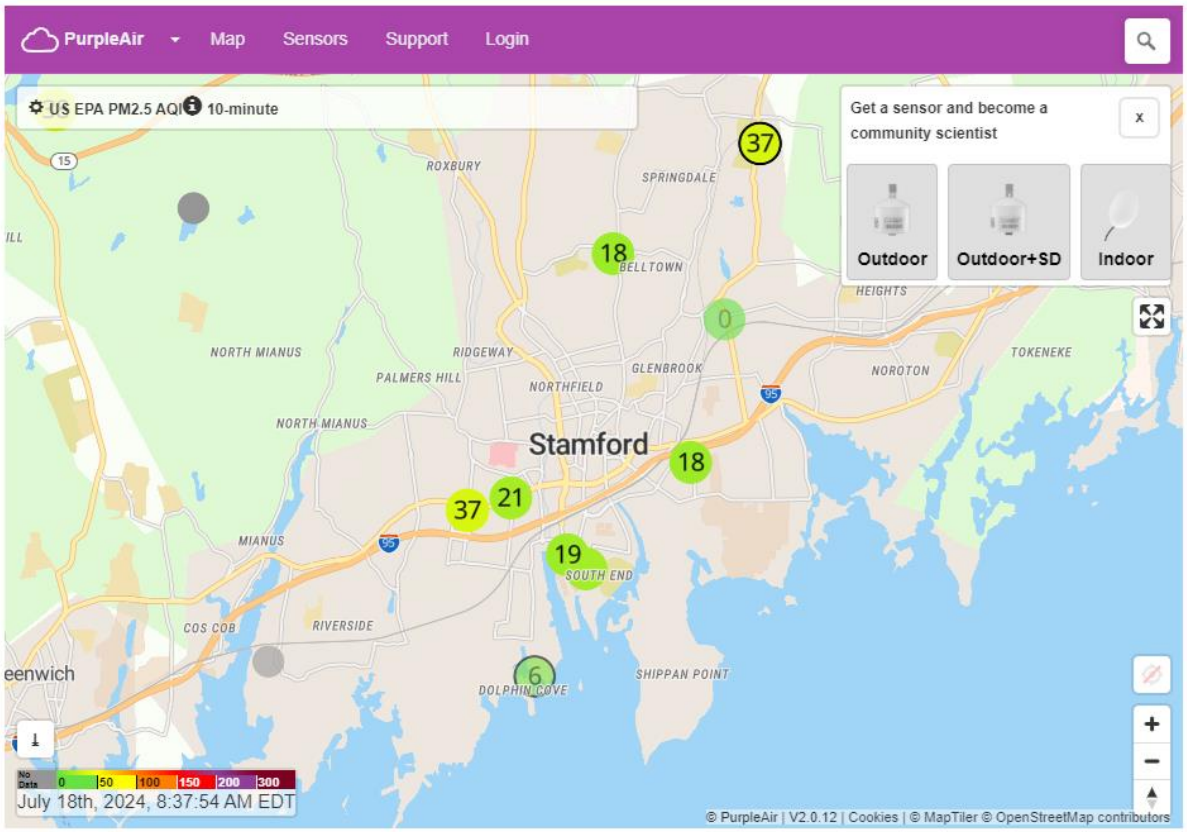
Figure 29 - Combined asthma emergency department visits and hospitalizations by census track (2010-2014).



Source: CT Department of Public Health Asthma Program.

3.3 Air Quality Climate Actions in the Works	
3.3	**Reduce indoor and outdoor air pollution and ensure all of Stamford has access to clean, breathable air.**
3.3.1	Stamford has been awarded a $68.8K grant from the EPA to **advance air quality monitoring** with new sensors that will measure pollutants including PM2.5, NO2 and Ozone. These new monitors will supplement the purple monitors already in place around the city. Data obtained from these monitors can be combined with heat maps to help pinpoint vulnerable areas and populations.
3.3.2	Stamford has also secured $2.7M in state funding for HVAC **Indoor Air Quality Grants** Program in Stamford Public Schools. Sites include Julia Stark, Davenport, Cloonan Middle. Stamford High, Westover, Rippowam and Northeast.

Figure 30 - Air quality monitoring in Stamford provides real-time measures of the local Air Quality Index for PM 2.5.



3.4 Water Quality, Conservation, and Access



Stamford is home to an extensive network of waterways, including its coastal resources along the Long Island Sound, inland waterways, and wetlands. The City's Environmental Protection Board, its Stormwater Management division, and the Public Health Department all take steps to protect, conserve, and monitor water quality — whether at the city's beaches, as part of new development adjacent to wetlands, and by clearing away tons of debris per year from the city's thousands of catch basins.[45]

3.4 Water Quality, Conservation, and Access Climate Action in the Works	
3.4	**Conserve and protect inland waterways, watersheds, and beaches and ensure all residents have equitable access to the waterfront.**
3.4.1	Improvements to **Boccuzzi Par**k are underway which include the installation of a dune scape to replace a parking lot. The **dunescape** will act as a natural buffer to sea-level rise. Plans also call for increased pedestrian access to the waterfront. Work is supported by a $1.81M Outdoor Recreation Legacy Partnership Grant from the National Park Service
3.4.2	The City's **Environmental Protection Board (EPB)** is responsible for reviewing and issuing special permits for construction on properties near inland wetlands, watercourses, and flood hazard areas, as well as provides technical assistance on environmental impacts of developments. During FY 2022-2023, the EPB reviewed approximately 1,700 building permit applications and evaluated 123 formal applications to ensure compliance of EPB water conservation and protection policies.
3.4.3	To further protect the health and quality of inland waterways and wetlands, the EPB and technical staff developed and instituted a **comprehensive update** of the city's **Inland Wetland & Watercourse Regulations**. New amendments extend the upland review area in non-drinking supply watersheds from 25 feet to 50 feet, which brings Stamford in line with state and surrounding cities and towns minimum review standards.
3.4.4	The **Citywide Stormwater Drainage Assessment** is underway which will analyze our existing system with new, national precipitation frequency standards currently being updated by the National Oceanic and Atmospheric Administration (NOAA). This update, from Atlas 14 to Atlas 15 standards, will be based on predicted increases in precipitation due to climate change. The update will likely lead to necessary increases in drainage capacity and related infrastructure.

[45] See also Goal 3.1, Environmental Resiliency, for additional actions designed to mitigate flooding and protect natural resources.

3.4.5	**Drainage improvement** projects to culverts, drainage pipes, valves, etc. are ongoing throughout the city and include Barrett Park, Hope Street, 94 Bentwood Drive, 23 Rock Rimmon Lane, Transfer Station, 775 Den Road, 20 River Hill Drive, and Northeast School.
3.4.6	All new **school designs and construction**, including at Westhill High School and Roxbury Elementary, undergo drainage assessments. New construction at Roxbury School includes creating educational opportunities to teach surface storm water treatment, such as rain gardens.
3.4.7	All capital construction projects, including bridge and paving projects, undergo drainage and stormwater assessments with improvements when warranted to offset flooding, including **Cedar Heights Bridge** and the **Pave Stamford** initiative which aims to pave 200 roads by 2025. The first 35 have been completed. Studies show that well – maintained, smooth roads increase fuel efficiency, reduce tire resistance, and decrease fuel consumption by 2.5% -4.5% which can lead to a 2% reduction in CO2 emissions.[46]
3.4.8	A new inspection of the aging seawall along the solid waste facility on the **East Branch Canal** is complete, updating a 2019 inspection. This new inspection will be used to apply for grants to improve the seawall.
3.4.9	New **promenades at Cummings Park East and West Beach** will provide continued access to the waterfront in those areas.
3.4.10	Through a $1.2M state grant, the **West Beach Boat Ramp** repair and expansion has been completed on time and on budget. The new ramp improves capacity, access and connectivity to Stamford's waterfront for residents, fire and police.

While some of Stamford's beaches received high marks, Cummings Park Beach received a C+ in 2023 from Save the Sound. Water quality often suffers from stormwater run-off, especially after heavy rain.

Figure 31 - Stamford beaches receive a range of swimmable grades from Save the Sound.

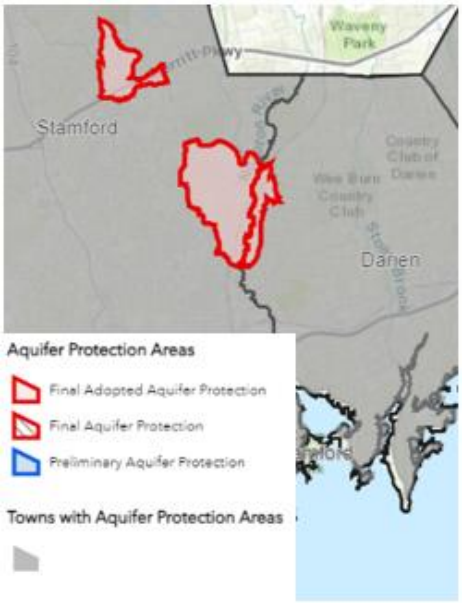


Figure 32 - Aquifer Protection Areas are meant to keep groundwater clean.

[46] NAPA, Wang, 2021 and Environment for Development. Coarse roadways also contribute to higher PM 2.5 tailpipe emissions.

3.5 Equity, Inclusion and Social Resiliency

3.5 Ensure all residents and businesses have inclusive, equitable access to all city benefits and services, including during extreme climate emergencies.

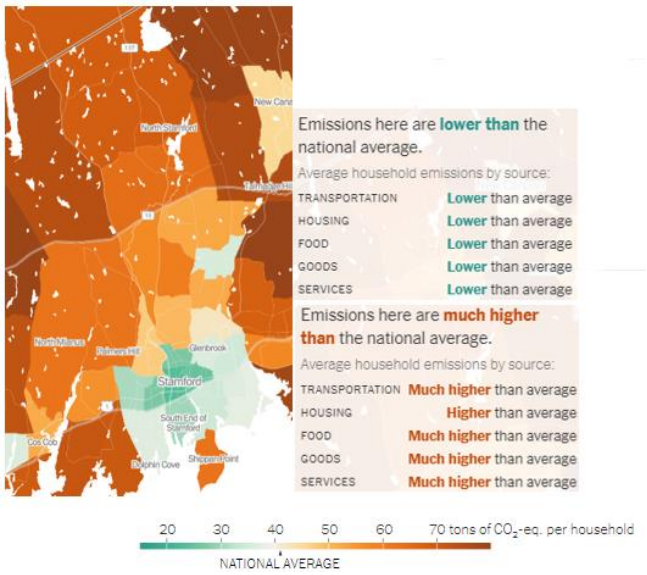
Stamford is committed to enhancing the quality of life for all its residents by creating and maintaining equitable and inclusive access to all city services and benefits, including clean air and water, affordable housing, natural resources, transportation, education, and employment. Prioritizing social resiliency measures to provide uninterrupted access to basic needs, especially during extreme weather events, supports quick recovery from adverse impacts for individuals and families citywide.

All actions discussed in this plan are intended to adhere to Stamford's IDEAS[47] policy, ensuring each action includes and addresses the concerns and needs of all population segments. Actions designed to engage and support Stamford's diversity, and its seniors, veterans, small businesses, and youth, listed below, are already making Stamford a more equitable, inclusive, affordable, and vibrant city where everyone can thrive.

Emission Inequality

Globally and locally, those that are most impacted by climate change are typically those who have contributed the least. The same holds true in Stamford. Within the City, many of the most vulnerable communities are located in lower income neighborhoods along the I-95 corridor, while the neighborhoods with the largest carbon footprints are primarily in North Stamford. As depicted in Figure 34, GHG emissions originating in North Stamford are much higher than the US average from transportation, food consumption, and goods and services. Conversely, the South End and Downtown neighborhoods generate less emissions than the national average in all categories. [48] Higher income communities tend to use more energy in larger homes with larger appliances and more devices, travel and fly more, tend to drive more with multiple vehicles, and have the purchasing power to amass multiple goods and services.[49]

Figure 33 - Estimated Carbon Emissions in Stamford by Census Tract



Source: New York Times Interactive Climate Footprint Map, December 2022.

[47] Inclusion, Diversity, Equity, and Accessibility Strategies recognizes that our diverse community is one of our most valuable assets, where our differences make us stronger, smarter, and more innovative.
[48] New York Times, December 20222.
[49] The NY Times mapping tool estimates average household emissions "based on electricity use, car ownership, income levels, consumption patterns and more."

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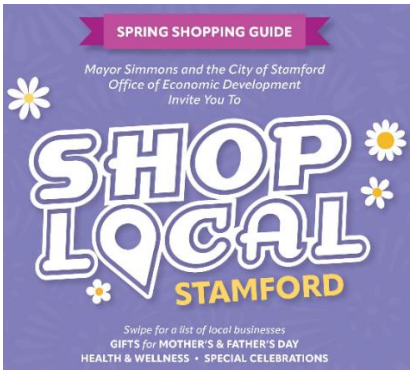
3.5 Equity, Inclusion and Social Resiliency Climate Actions in the Works	
3.5	**Ensure all residents and businesses have inclusive, equitable access to all city benefits and services, including during extreme climate emergencies.**
3.5.1	Stamford has established numerous **cooling, heating, and respite centers** citywide for daily and overnight public use in times of extreme weather, including extreme heat, extreme cold, flooding, and hurricanes.
3.5.2	Through a grant from the National Association of City and County Health Organizations, the City's Public Health Department provided free **Emergency to-go Backpacks** for residents. The backpacks were filled with information and supplies needed in case of emergency evacuation/relocation due to extreme weather events.
3.5.3	To support small businesses in times of crisis, the Mayor created the **COVID-19 Small Business Resiliency Grant** program to assist local businesses impacted by the COVID Pandemic. The City distributed grants to 176 businesses, including 120 minority or women-owned businesses and 34 Hispanic-owned businesses.
3.5.4	In addition, the **Community Micro-Grant Program** launched last year awards grants to informal grassroot organizations, neighborhood associations and community-wide efforts aimed at improving the quality of life across Stamford's neighborhoods. In 2023, the City awarded grants to 21 organizations ranging from $1,500 to $8,000 each.
3.5.5	To help ensure Stamford residents have access to affordable housing, the city completed its state-mandated **Housing Affordability Plan** in 2022, to evaluate current conditions, assess need, and recommend strategies to increase the affordable housing stock. Mayor Simmons also released the first Affordable Housing Executive Order, with the goal of creating or renovating 1,000 affordable housing units by 2025. So far, 637 units have been completed or are in the pipeline. Another 105 Below Market Rate (BMR) units are under construction with 1,200+ BMR units citywide. Funded through a FY23 budget surplus, $2M has been added to the Affordable Housing Trust Fund.
3.5.6	In February of 2023, the City opened the **Veterans Resource Center** at Old Town Hall, already connecting approximately 200 veterans with resources and services.
3.5.7	The city's **Walk-In Permitting** program has been made permanent with dedicated space on the 7th floor of the Government Center. Hours of operation are every other Wednesday from 9:30 a.m. to 12:00 p.m. The Program is designed to answer questions and streamline the permitting process for residents and businesses. The average wait time has been reduced from two years to 90 days.
3.5.8	To further engage with all citizens, the city created a QR code to encourage residents with disabilities to **register their locations** with first responders so that they may provide support and/or **evacuation assistance** if needed during extreme weather events including hurricanes.
3.5.9	Stamford is working to achieve **ADA Compliance** citywide by upgrading sidewalks and intersections and improving access to the city's parks and beaches.
3.5.10	The Mayor recently conducted a listening tour of senior housing facilities to hear directly from residents. The Mayor also established a **Senior Advisory Counci**l to advocate for senior needs and services.
3.5.11	The Mayor's **Business Advisory Council** now includes more than 75 companies and meets at least twice per year.

3.5.12	The newly-launched **Small Business Resource Center** accessed here, provides numerous tools and resources to help support Stamford's small business community. The city provides in-person meetings with community groups and small businesses and holds workshops on various topics including how to gain access to capital. The City also created the "**Shop Local**" campaign and directory, hosting a holiday and spring shop with local small businesses at the Government Center.
3.5.13	Recent improvements to **Fix It Stamford** have resulted in a more responsive city government, reducing resolution times for requests by 15-20%.
3.5.14	In collaboration with nonprofits and community providers, Mayor Simmons has launched the **Youth Mental Health Alliance** to implement community-based strategies to address the youth mental health crisis including the "Don't carry it alone. We've got you," public awareness campaign.
3.5.15	To recognize and celebrate Stamford's diversity, the city hosts numerous cultural events year-round including parades, flag raising, and holiday celebrations. In addition, the city's Arts & Culture Commission awards annual grants to recipients committed to providing quality programs that are accessible, diverse, and innovative and add diversity and vibrancy to Stamford's art and culture scene. Click here for 2024 awardees.

Figure 34 - Stamford regularly provides residents with heating and cooling centers during extreme weather events.



3.6: Increase Resiliency and Advance Environmental Justice: Next Steps	
3.6.1	Seek funding for an **East Side Community Sustainability Stewardship Project** which would partner with neighborhood organizations and residents to care for newly planted trees and bioswales, potentially creating jobs through stewardship opportunities.
3.6.2	Secure funding for **bridge repair projects** including Old Long Ridge Road Bridge, Mill Road Bridge, Cascade Road Bridge and the Dannell Drive Culvert.
3.6.3	**Implement recommendations** developed through resiliency planning projects including Downtown Heat Study, Cummings and Toilsome Brook.
3.6.4	**Coordinate roadway construction projects** including utility repairs, green infrastructure installations, paving, sidewalk construction, ADA compliance etc.
3.6.5	Install and maintain **20 new bioswales** on selected sites.
3.6.6	**Execute Stamford's Park Action Plan** to empower, celebrate, connect, and grow the City's green space network so that all residents have access to a quality park within a ten-minute walk.
3.6.7	Utilizing data from air quality monitoring, develop a plan, prioritize actions, and implement strategies to **improve air quality** especially for the most impacted neighborhoods.
3.6.8	Explore the potential development of community **resiliency hubs** in times of extreme weather which would not only provide shelter, but also directly connect impacted individuals and communities with service agencies and other organizations to provide essential resources.
3.6.9	Designate and award recipients of the **2024 Community Micro-Grant Progra**m with distribute another $75,000 to community projects across Stamford.
3.6.10	Conduct outreach and education to **promote sustainable behaviors citywide** - at home, at school, at work, in neighborhoods
3.6.11	Work with **Pollinator Pathway Stamford** to design, plant and maintain native species on city properties, including the Government Center's **4th floor rooftop patio**, lawn, and gardens.

Next Steps: Finalize Baselines, Establish Targets, Monitor and Report

Sustainable Stamford: A Plan for Climate Action-Phase 1 is the first-ever comprehensive compendium of climate actions that are underway and planned within municipal operations which will reduce GHG emissions, decrease waste, and increase resiliency -- actions which taken together work to make Stamford a more sustainable, equitable, and vibrant city where everyone can thrive. This initial climate action plan focuses on a set of municipal actions, including plans, programs, projects and policies, that have been initiated and advanced within the city's jurisdiction and its municipal departments. By doing so, this plan provides transparency and accountability and communicates the city's strong commitment to addressing local climate change challenges as evidenced by the significant amount of outside funding secured for individual actions.

In addition, this plan also presents Stamford's overarching climate goals, identifies strategy areas by sector, and presents evidence justifying the urgent need for accelerated climate action. It also provides a framework to monitor actions, though there is more work to be done. This includes widening the scope of this plan to account for climate actions taken outside of city government by residents, businesses, neighborhoods and community organizations. The next phase will establish and verify baseline measures, quantify emission reduction targets, determine deadlines, and assign key performance indicators by goal, strategy area, and action, followed by quarterly tracking and annual reporting. This careful monitoring and evaluation will be designed to ensure equitable results, inclusive participation, and widespread benefits — crucial to impactful climate actions.

The actions detailed in this plan are nature-based, ranging from installing a dunescape, to building bioswales, to encouraging native plant species. Other actions are more people-centered, meant to drive resources where they're most needed to create a more inclusive and responsive government with equitable access to all benefits and services. Ultimately, climate actions are designed to improve the quality of life today and for future generations. Protection against the adverse effects of climate change has proven to be a basic human right. More and more, younger generations are demanding their future be secured, setting legal precedents as their cases prevail here in the US, in Montana and Hawaii, which uphold the right to a clean and healthy environment.[50] Stamford's children and their children's children deserve nothing less.

Figure 35- Swift Action Today Provides Multiple Immediate and Future Benefits

Source: Fifth National Climate Assessment, 2023

[50] Internationally, the UN Committee on the Rights of the Child now affirms that children have the basic right to "live in a clean, healthy and sustainable world now and to preserve it for future generations."

Figure 36 -Examples of Potential Baseline and Performance Indicators by Strategy Area

TRACKING CLIMATE ACTION PLAN PROGRESS	
Key Performance Indicators	
Goal 1 -Reduce Greenhouse Gas Emissions Citywide and Within Government Operations	
Transportation	Percent Change/Actual CO2 Metric Tons Reduced
	% transportation mode share and shifts - SOVs, Transit, Active, Shared
	Percent change /Actual change of VMT
	Number of Electric Fleet Vehicles
	Number of EV Charging Stations
	Number/% Decrease in Road Fatalities and Serious Injury
	Miles/% increase of Bike and Pedestrian Networks -New and Repaired
	#/Miles of newly paved roads
	# of intersections improved for pedestrian safety
	# of intersections upgraded to ADA Compliance
	TOD projects
	# of transit routes operated with clean energy vehicles/# of vehicles/miles
Energy	# of LED Streetlights
	# of LED Traffic Lights
	Percent Decrease/Actual energy consumption of municipal facilities
	Percent Decrease/Actual energy consumption of schools
	Percent/Actual Renewable Energy Procurement/PPAs/long-term leases
Land Use	# of Sustainability Scorecards completed and grades
	# of permits for renewable solar installation projects
	# of permits for renewable EV Charging Stations
	Percent/Sq. Ft. of Cool Surfaces/Green Rooftops
	Zoning amendments that support/regulate climate goals/sustainability
Goal 2 - Decrease Waste and Foster a Circular, Green Economy	
Waste	Amount of waste/tons to landfills
	Amount/percent of recycled waste - single stream
	% /amount of construction and demolition waste recycled
	lbs of food-scraps recycled and composted
	%/actual GHG emissions avoided from recycling and composting
	# of compost kits distributed
	# of commercial establishments participating in compost programs
	# of big belly bins installed
	Amount of waste processed at the WPCA
	# of overflow occurrences
Circular, Green Economy	%/# of green jobs/business growth
	# of municipal projects repurposing materials
	#/%/$ amount of purchases made utilizing sustainable procurement / green budgeting
Goal 3 - Make Stamford More Resilient and Advance Environmental Justice	
	# of Bioswales Installed/Planned
	# of trees planted/protected
	% change/actual amount of PM2.5
	Area covered by tree canopy
	# of ED trips due to asthma
	# of heating/cooling centers
Citywide Climate Indicators	
	# of extreme weather events and cost of damage
	Daily temperature and precipitation
	# of tidal flood days
	#/$ amount of Climate/sustainability- oriented grants

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APPENDIX

Climate Executive Order, April 2023

MAYOR CAROLINE SIMMONS
CITY OF STAMFORD, CONNECTICUT

TEL: 203-977-4150
EMAIL: MAYORSOFFICE@STAMFORDCT.GOV

EXECUTIVE ORDER NO. EO_005_230417_Climate

SUBJECT: *Climate Change & Sustainability* EFFECTIVE DATE: *April 21, 2023*

CITY OF STAMFORD
EXECUTIVE ORDER ADDRESSING
CLIMATE CHANGE AND SUSTAINABILITY

PURPOSE: *Addressing climate change, promoting sustainability and reducing carbon footprint for Stamford is essential to protect our city and our environment.*

WHEREAS, climate change is a global crisis that affects the environment, public health, public safety and the economy, posing significant challenges for cities and their residents;

WHEREAS, Stamford, a City of 136,309 people, has a responsibility to act on climate change and to reduce greenhouse gas emissions in line with state, national and international goals;

WHEREAS, it is essential for the city to prioritize sustainability and resilience to ensure a healthy, prosperous, and safe future for all citizens;

WHEREAS, it is imperative that cities take bold actions to reduce climate change to protect the environment for current and future generations;

WHEREAS, cities are responsible for 75 percent of global CO2 emissions, with transport and buildings being among the largest contributors, cities have a responsibility to take action and be part of the solution to reduce their carbon footprints,

WHEREAS, Stamford is a coastal city and is at risk of rising sea levels caused by climate change that could negatively affect residents impacted by flooding,

WHEREAS, it is important to advance environmental justice initiatives and recognize the adverse impacts of climate change on disadvantaged communities,

888 WASHINGTON BOULEVARD ❖ STAMFORD, CT 06901 ❖ WWW.STAMFORDCT.GOV

NOW THEREFORE, I Caroline Simmons, as Mayor of the City of Stamford, by the executive and administrative powers vested in me by the Charter of the City of Stamford, hereby issue the following Executive Order, directing my Administration and all applicable City Departments and Agencies, as follows:

- Require the Director of Administration and budget team to include sustainability guidance to internal and external agencies for future capital projects.
- Require the City's Grants team to continue to pursue federal and state grant opportunities to support sustainability and resiliency goals, with a focus on diversity, equity, and inclusion and advancing environmental justice.
- Require the Director of Operations to consider and seek to implement ways to include sustainability guidance in their review processes.
- Require the Director of Operations to establish a comprehensive electric vehicle (EV) strategy and develop a green fleet plan, including the installation of EV charging infrastructure, with key goals and metrics and report annually to the Mayor's office on the status of the plan.
- Require the Director of Operations to continue to implement a food waste reduction strategy, with the goal of diverting food waste from landfills through the City's Food Scraps Recycling Program and other programs and report annually to the Mayor's office on the status of the program.
- Require the Director of Operations to work to promote and enhance recycling and composting programs to residential and commercial sectors.
- Require the Director of Operations to provide a thorough report annually on energy efficiency measures with key metrics at city owned facilities, including updates on the progress of renewable energy generation at city owned buildings.
- Require the City's Land Use Bureau to provide a report to the Mayor's office on the 2023 Greenhouse Gas Inventory (GGI) results and develop a plan for reducing greenhouse gas emissions in partnership with the Mayor's Climate Council, Local Governments for Sustainability (ICLEI) and other partners.
- Require the Land Use Bureau to explore updating and enhancing the application of the Stamford Sustainability Scorecard.
- Require the Land Use Bureau to explore establishing a City website that provides guidance and information to Stamford on how to improve the sustainability of their properties.
- Require the Land Use Bureau to work with the City's Planning Board to make sustainability a top priority for the upcoming Master Plan revision, including reviewing zoning or other local regulations for impediments to implement sustainability initiatives.
- Require the prioritization of green infrastructure projects and resiliency initiatives, with a focus on critical infrastructure and underserved neighborhoods. Projects may include enhancing seawalls, building bioswales, planting trees, upgrading stormwater infrastructure and other efforts to prepare for adverse impacts of climate change, including sea level rise and extreme weather events.
- Require the City's Health Department to work with the Mayor's Office and the Mayor's Climate Council to launch a public awareness campaign to promote climate-friendly behaviors and

include citizen involvement in sustainability initiatives, with a focus on enhancing public health outcomes.

- Require the City's Transportation Department to develop a plan to increase the number of commuting trips utilizing active transportation modes to 25 percent within ten years, by building out and enhancing biking, walking and transit networks. Additionally, the Transportation Department shall incorporate green infrastructure into planning for roadway improvement projects when possible.

Caroline Simmons, Mayor

Date April 21, 2023

Mayor's Climate Council

Eleanor Blomstrom, Co-Chair, Senior Manager of Policy and Advocacy at Women Deliver

Gioia Connell, Sustainability Consultant, WSP and Vice Chair, CTGBC

Virgil de la Cruz, Board of Representatives Member (District 2)

Elliot Glassman, Senior Associate and Senior Technical Principal with WSP Built Ecology

James Grunberger, Board of Representatives Member (District 18)

David Kooris, Co-Chair, President of Stamford Downtown Special Services

Peter Novajosky, Farm Manager at Fairgate Farm

Leigh Shemitz, President of SoundWaters

Latha Swamy, Director of Food Policy for the City of New Haven

Sustainable Stamford: Local Climate Action Summit, January 25, 2024

MAYOR CAROLINE SIMMONS
CITY OF STAMFORD, CONNECTICUT

TEL: 203-977-4150
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SUSTAINABLE STAMFORD: LOCAL CLIMATE ACTION SUMMIT
Taking Stock, Making Commitments and Visioning for the Future
January 25th, 2024
10:30 am – 12:00 pm
AGENDA

Time	Agenda Item and Speakers
10:30	**Welcome to Stamford's Local Climate Action Summit** Matt Quiñones, Director of Operations, City of Stamford
10:35	**Stamford Climate Goals and Vision** Mayor Caroline Simmons
10:45	**State Climate Actions and Opportunities** Emma Cimino, Deputy Commissioner of the Connecticut Department of Energy & Environmental Protection
10:55	**Local Climate Actions in the Works** Frank Petise, Transportation Bureau Chief, City of Stamford Dan Colleluori, Director of Recycling & Sanitation, City of Stamford Ralph Blessing, Land Use Bureau Chief, City of Stamford Erin McKenna, Associate Planner, Land Use Bureau, City of Stamford Danielle Petretta, Environmental Sustainability Coordinator, City of Stamford
11:25	**Community Climate Resources, Initiatives, and Investment** Drew A'lelio, Senior Associate, Climate Tech Fund, CT Innovation Joe Hines, Director of Safety and Security, Stamford Health Peter Ludwig, Senior Manager, Market Engagement, CT Green Bank Leah Kagan, Director of Economic Development, City of Stamford
11:45	**Mayor's Climate Council: Progress and Recommendations** David Kooris, Co-Chair, Mayor's Climate Council & President, Stamford Downtown
11:50	**Stakeholder Input and Aspirations for a Sustainable Stamford** Mayor Caroline Simmons

Figure 37-Just some of Stamford's 56 Parks


Cove Island Park


Cummings Park


West Beach Park


Mill River Park


Kosciuszko Park


Scofieldtown Park


Dorothy Heroy Complex


Rosa Hartman Park


Newman Mills Park


Fort Stamford


Chestnut Hill Park


Barrett Park


Veterans Memorial Park


Jackie Robinson Park


McKeithen Park


Homer Lee Wise Park


Mianus River Park


Bartlett Arboretum


Scalzi Park


Cove Island Park


John J. Boccuzzi Park


Woodway Park


Czescik Marina Park


Lione Park


Drotar Park


Harbor Point Commons


Northrop Field


Carwin Park


Kiwanis Park


Yale Towne Park


Columbus Park


Brennan Golf Course

Source: Stamford Citywide Parks Strategic Plan.

Stamford Climate Goals, Strategy Areas, and Actions

SUSTAINABLE STAMFORD: A PLAN FOR CLIMATE ACTION GOALS, STRATEGY AREAS, ACTIONS	
1	**Reduce GHG Emissions Citywide.**
2	**Decrease Waste and Grow a Circular, Green Economy.**
3	**Increase Resiliency and Advance Environmental Justice.**
GOAL 1: REDUCE GHG EMISSIONS CITYWIDE	
1.1 Transportation Climate Actions In the Works	
1.1	**Reduce GHG emissions from transportation by: 1) increasing active, safe and sustainable transportation choices; and, 2) providing and encouraging alternatives to fossil-fueled, single-occupancy vehicles.**
1.1.1	**Encourage and provide safe, functional, and accessible opportunities for active transportation trips for all ages and abilities citywide by: 1) continuing to expand Stamford's multimodal pedestrian and cycling networks; and, 2) and increasing safety.**
1.1.1.1	Through a $17M USDOT Reconnecting Communities and Neighborhoods Grant, the **West Side Neighborhood Connector Project** will re-stablish connections previously severed by the construction of I-95. The grant will cover pedestrian improvements to the West Side, Downtown, South End, and Stamford Transportation Center, reestablishing access to employment centers, education, transit, parks, and other community destinations and fill a 3,000-foot gap in the Mill River Greenway network with a 12-foot wide mixed-use path.
1.1.1.2	Stamford's **Vision Zero** initiative aims to decrease serious injury and eliminate all roadway fatalities by 2032. The **Vision Zero Action Plan**, supported by a Task Force created via a September 2022 Executive Order, is underway and will take community concerns and crash data to prioritize and direct capital resources to improving safety at high-injury locations. Improvements can include widened sidewalks, signage, crosswalks and other traffic calming measures.
1.1.1.3	The **West Main Street Corridor** will be revitalized through a $2.1M USDOT FHWA Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant.
1.1.1.4	An $800k Community Connectivity Grant from the CT Department of Transportation will fund the **Belltown Neighborhood Connectivity and Safety Projec**t to enhance connectivity to Barrett Park and implement pedestrian safety measures.
1.1.1.5	Through its **Safe Streets and Roads for All** program, another $1.65M grant from USDOT will fund sidewalk improvements.
1.1.1.6	Stamford's planned **Route Optimization Project** is designed to increase efficiency and reduce emissions throughout Stamford's vehicle fleet. Smart vehicle tracking systems will be installed and used to decrease the duration of routes, distance traveled, and idling of municipal vehicles.
1.1.1.7	In addition, the City is proactively working to formalize its **Transportation Demand Management (TDM) Policy** by establishing standard strategies required for new development. These TDM strategies and formalized policy, which will also standardize reporting requirements, are designed to decrease dependency on single-occupancy vehicles by increasing sustainable transportation choices, such as providing transit passes, ride share opportunities, bicycle parking, etc.

1.1.1.8	Green infrastructure measures are being installed in all new transportation projects wherever viable which work to improve water and air quality conditions. These measures can include new trees and bioswales which temper heat island effects, decrease flooding, filter stormwater runoff and air pollutants.
1.1.1.9	The City of Stamford has been awarded $223,608 in state funding for the planning and design of the **Weed Avenue Multi-Use Trail**. This initiative will enhance safety and mobility through multimodal and traffic calming improvements, pushing us closer to achieving our Vision Zero goals.
1.1.1.10	The **Lower Summer Street Pedestrian Promenade** opened for residents and visitors this past summer**.** The project transformed Lower Summer Street into a more pedestrian-friendly space with expanded outdoor dining, widened ADA-compliant sidewalks, and improved lighting, all while enhancing the vibrancy and walkability of our downtown.
1.1.2	**Expand Stamford's Public and Private Electric Vehicle Charging Infrastructure**
1.1.2.1	The city has been awarded a state grant originating from USDOT's Charging and Fueling Infrastructure Grant Program to install 12 EV Direct Current Fast Chargers (DCFC) at the city's **Bedford Street Garage** and an additional 12 EV DCFC at the **Summer Street Garage**. Currently, the city offers the use of EV chargers at four municipal garages.
1.1.2.2	In addition, the city has also been awarded nearly $600k from CT DOT to install dual port EV charging stations at the **Stamford Government Center and Bedford Street Garage.**
1.1.2.3	Nine new charging stations are scheduled to be built as part of the transit-oriented development around the **Springdale Train Station.**
1.1.2.4	Another 38 EV chargers and 50 e-Bike charging stations at the **Stamford Transportation Center** have recently come online as well.
1.1.2.5	Stamford's **EV zoning ordinance** now requires that new development requiring 10 or more off-street parking spaces must equip **10% of total spaces** with easily accessible electric vehicle charging stations.
1.1.2.6	**Additional municipal sites** being assessed which could benefit from EV charging stations include the City's Vehicle Maintenance Facility, the Police Department and the WPCA.
1.1.2.7	Between 2021 and 2023, residents and businesses invested over **$1.5M in 72 EV charging stations** at homes and commercial properties.
1.1.3	**Electrify Stamford's Municipal Fleet Vehicles and Transit Vehicles**
1.1.3.1	Under a lease agreement, Stamford is in the process of upgrading its vehicles t0 the most up-to-date **fuel-efficient vehicles** with the option to transition to all electric vehicles once charging stations are functional.
1.1.3.2	Under a $26.4M USDOT FTA grant, 20 **new electric buses** will be purchased for CT Transit's Stamford division.
1.1.4	**Increase transit choices and shared mobility options throughout Stamford**
1.1.4.1	Stamford has received a $2.5M grant to develop a shared, **micro-mobility pilot program** to provide on-demand transit service to residents within a five mile radius serving the West Side, Downtown Stamford, South End and East Side neighborhoods. The program aims to provide access to transit, employment centers, health facilities and more.
1.1.4.2	In addition, CT Transit has launched a **new Stamford bus route, #349,** serving the Springdale and Cove communities with service including the Glenbrook and Springdale train stations.
1.1.5 Transportation: Next Steps	
1.1.5.1	Continue to comprehensively plan, identify potential sites and build out Stamford's **EV infrastructure** citywide.

1.1.5.2	Continue to el**ectrify Stamford's municipal flee**t vehicles, including police and fire department vehicles.
1.1.5.3	Define parameters and explore the possibility for an **electric sanitation truck pilot program**.
1.1.5.4	Develop a technical guide of **EV charging station standards** and specifications citywide.
1.1.5.5	Electrify other **municipal gas-powered equipment**, including golfcarts, mowers and leaf-blowers.
1.1.5.6	Increase the safety of active transportation modes by implementing **Vision Zero Action** plan and initiatives to enhance pedestrian safety and eliminate vehicular fatalities and serious injuries citywide.
1.1.5.7	Continue to expand Stamford's 22-mile **bicycle network** citywide including another 11 miles already planned.
1.1.5.8	Pursue EPA CPRG funding to support the **Complete Streets** conversion of Bedford and Summer Streets with new pedestrian and bike accommodations and improved transit service. This project could reduce GHG emissions by more than 38k MT CO2 between 2025-2050, from increased transit trips, reduced idling and congestion, shifts to active transportation modes, and increased carbon capture from green infrastructure and tree planting.
1.1.5.9	Explore the potential for a **bicycle-sharing pilot program** with geofencing Downtown.
1.1.5.10	Create connections for a citywide **green beltway** of Stamford parks and open space for walking and cycling.
1.1.5.11	Explore opportunities to connect with neighboring towns to seamlessly **link cycling and walking** paths.
1.1.5.12	Define parameters and explore the possibility for an **electric refuse truck** pilot program. Diesel-powered vehicles accounted for 8.3% of estimated citywide emissions in 2021. Refuse trucks generate substantially more GHG than a freight truck or a school bus.
1.1.5.13	Develop a baseline of citywide **transportation trips by mode**, utilizing US Census data.
1.1.5.14	Continue to upgrade **city sidewalks** in the need of repair and ADA compliance by prioritizing sidewalks near transit hubs, parks, and senior housing, including 25 already identified.
1.1.5.15	Develop a city fleet **idle mitigation plan** to reduce greenhouse gasses and improve air quality in Stamford and enforce CT DEEP's idling laws citywide.
1.1.5.16	Initiate the transition to **Clean School Buses** citywide.
1.1.5.17	Electrify the **Cove Beach Tram.**
1.2 Facilities, Buildings, and Energy Climate Actions In the Works	
1.2	**Reduce GHG emissions at municipal facilities and buildings citywide and increase the generation, use, and purchase of clean energy.**
1.2.1	Stamford is in the process of **upgrading its municipal facilities** to be more energy efficient and accountable by modernizing Building Management Systems, upgrading HVAC systems, and installing smart LEDs, including at the Government Center and Old Town Hall, which will work to reduce emissions and costs.
1.2.3	The City has established a **virtual net metering program** with long-term leases at three solar panel facilities in the state which have already generated more than $300k in utility credits applied to municipal facilities.
1.2.3	Following a recent analysis of municipal buildings and schools which assessed the potential for roof top solar, the City plans to issue its first **solar installation RFP** for four city schools

	including Westover Magnet School, Stamford High School, Rogers International School and Strawberry Hill.
1.2.4	Bring sustainable building techniques and materials to the City's $1.5B school construction plan, the largest in the City's history. This includes the new Westhill High School which is being planned as the city's first LEED Net-Zero school.
1.2.5	Supported by a $2M multi-year grant from the US Department of Energy, Stamford is converting more than **7K streetlights** to longer life, high-efficiency, smart LED fixtures. 3,000 have already been converted. Other deliverables will include a geocoded inventory and audit of the entire streetlight system within the City's rights-of-way and a design for a smart, data-collecting, streetlighting system citywide. This transition will reduce costs and energy consumption.
1.2.6	A **lighting audit** is also underway at municipal buildings and schools which will identify opportunities for enhanced performance, better proactive controls and greater efficiency. Prioritized upgrades could include smart lighting systems, daylighting, LEDs, occupancy sensors, etc.
1.2.7	The City continues to manage electricity costs by **purchasing power from a third-party supplier** which reduces energy costs and increases predictability. Third party rates and energy trends are analyzed to lock in prices that are often lower than Eversource's standard service.
1.2.8	Residents and businesses have also invested in **renewable energy generation** and use. Between 2021 and 2023, the city issued nearly 750 permits for solar array installations and EV charging installations, equating to more than $29M in private sector investment throughout the City.
1.2 Energy: Next Steps	
1.2.9	Conduct an **energy consumption audit** of all municipal facilities to develop a baseline and prioritize areas for improvement.
1.2.10	Develop a **smart streetlight system** citywide which would increase energy efficiency, collect data, and self-report outages, usage, and needed repairs.
1.2.11	Increase **renewable municipal energy** generation by identifying additional sites and installing additional solar panels on municipal facilities and schools.
1.2.12	Develop an energy procurement strategy to prioritize power purchase agreements featuring renewable energy sources.
1.2.13	Provide **outreach** to commercial businesses and homeowners to identify federal and state incentives to reduce their carbon footprint citywide and decarbonize buildings.
1.2.14	Expand procurement of and availability of renewable energy, including wind and solar, for municipal facilities and homes and businesses citywide.
1.2.15	Evaluate the **permitting and inspection** process for private sector renewable energy projects to determine and remove any barriers and to expedite the process.
1.3 Land Use and Zoning Climate Actions In the Works	
1.3	**Decrease the Carbon Footprint of our Built Environment**

1.3.1	To recognize and reward local sustainability achievements, the City has instituted the **Stamford Sustainability Scorecard** now required as part of the city's zoning ordinance for all larger residential and commercial developments, redevelopment and conversions. Projects with at least 10 dwelling units and/or 10k sq. ft. or more, or, on lots where 20,000 sf or more are disturbed, must submit a completed Scorecard as part of the Land Use Bureau application review process. The Scorecard objectively measures a development's sustainability features by awarding points in categories such as energy use, landscaping, mobility, waste management, etc. The resulting grade must then be posted via a plaque in a conspicuous location of the property. A grade of B is approximately equivalent to LEED Silver.
1.3.2	For the first time, the City has required new developments within the **Stamford Transportation Center** district to attain a Sustainability Scorecard rating of B or higher.
1.3.3	The city's **Comprehensive Master Plan** update for 2025-2035 is underway. To address climate change, sustainability and resiliency will be major themes throughout.
1.3.4	The Land Use Bureau is also working to **remove barriers and provide incentives** to encourage more sustainable features, such as **exempting rooftop solar panels from maximum building heights**.
1.3.5	Additional **sustainability measures** required by the city's zoning ordinance for new developments include tree planting, sidewalk installation, and bicycle parking/storage.
1.3 Land Use and Zoning: Next Steps	
1.3.6	Explore the possibility of applying the **Scorecard to public developments and infrastructure projects** and to industrial buildings.
1.3.7	Explore **mandating a minimum Sustainability Scorecard grade** in additional zoning districts, contextualized to neighborhood conditions such as density.
1.3.8	Explore additional zoning changes to advance sustainability including limiting the lot coverage of **impervious surfaces** and requiring a permit to r**emove mature trees.**
1.3.9	Explore ways to remove barriers to more sustainable development including allowing certain obstructions such as for **solar awnings and canopies** over parking facilities.
1.3.10	Develop and institute citywide standards for the use and storage of **E-Bikes and E-Scooters**.
1.3.11	Explore the possibility of requiring g**reen/cool roofs and/or rooftop solar** for new development.
1.3.12	Coordinate and standardize **zoning and transportation sustainability reporting requirements** for development.
GOAL 2: DECREASE WASTE and GROW A CIRCULAR, GREEN ECONOMY	
2.1 Divert waste from landfills and waterways.	
2.1.1	With a USDA $45k grant, the city has launched its **food-scrap recycling and composting program**. This initial grant helped to fund the purchase of two dehydrators at the Katrina Mygatt Recycling Center and another at Fairgate Farms. During the first year of operation, the city diverted 42k lbs. of food-scraps from its waste stream. In Year 2, the program diverted 85K lbs. This year, the program is on track to divert over 100k lbs. of organic waste.
2.1.2	The City of Stamford was awarded a $2.1M SWIFR grant from the US EPA which will greatly **expand its food-scrap recycling and composting program**. This will include education and marketing of the program as well as funding the purchase and installation of four new large dehydrators and 52 drop-off bins to be installed in strategic locations

	throughout Stamford. Potential sites for dehydrators could include Mill River Park, Westhill High School, or Scofield. Once the program is fully equipped and operational, the city could divert and process 300k - 400k lbs. of food-scraps annually.
2.1.3	Other programs designed to **divert usable items** from the waste stream include the Recycling and Sanitation's Take It or Leave It Shop and Book Swap at the Katrina Mygatt Recycling Center.
2.1.4	Nearly 85% of textiles, including clothes, shoes, handbags, belts, are discarded in landfills, accounting for 6% of municipal residential waste in the US according to the EPA. This equates to about 85lbs of textiles per person per year that could be repurposed. To help divert textiles from landfills, the City has recently partnered with **HELPSY**. Residents can now request **curbside pick-ups of textiles** through Helpsy.
2.1.5	The City also holds additional recycling events periodically such as at **Scofieldtown Park** to collect textiles, electronics and yard waste.
2.1.6	To further encourage recycling, the City has partnered with **Eye Recycle** to conduct **pop-up mobile events** where residents can redeem 5¢ deposit for plastic bottles, cans, and glass bottles for cash on the spot.
2.1.7	Stamford's **Mandatory Recycling Ordinance** requires the maximization of recycling and reuse of construction materials as well as the minimization of demolition debris for all residential and commercial renovation and new construction projects in accordance with state laws.
2.1.8	The **Stamford Water Pollution Control Facility**, located along the East Branch of Stamford Harbor, is designed to treat 24 million gallons of wastewater per day from Stamford and the Town of Darien. Through a four-step process, treated wastewater is released and remaining solid materials are processed, dried and converted into pellets. These pellets are then transferred to agriculture facilities in the region and used as fertilizer.
2.1.9	To better protect the Rippowam River watershed, the City has initiated the **Perna Lane Sewer Project,** which will extend sanitary sewers to the Perna Lane area. This will replace aging septic systems east of High Ridge Road where small lot sizes prevent code compliance of septic system replacements.
2.1.10	Recent WPCA plant upgrades plus its participation in **Eversource's Strategic Energy Management** program has resulted in an increase in energy efficiency and reductions in methanol use resulting in decreased costs and emissions.
2.2 Grow a Circular, Green Economy Climate Actions In the Works	
2.2	**Grow and foster a circular, green economy by supporting local food production, growing a green workforce, repurposing materials, and instituting sustainable business practices.**
2.2.1	The City of Stamford supports local food production at **Fairgate Farms** and its mission to increase community access to local, healthy food and produce.
2.2.2	The City is pursuing partnerships and **pilot programs** with start-up climate tech companies supported by **CT Innovation** and the Governor's Innovation Lab to promote the growth of local green businesses.
2.2.3	To incentivize the repurposing of construction materials, the **Stamford Sustainability Scorecard** awards additional points for **recycling 50% of demolition and construction waste**.
2.3 Decrease Waste and Grow a Circular, Green Economy: Next Steps	
2.3.1	Explore the expansion of Stamford's Food-Scrap Recycling program to restaurants, schools, commercial users, and municipal facilities.

2.3.2	**Reuse and repurpose** goods and materials where applicable from city engineering, construction and other projects.
2.3.3	Develop a green economy action plan which will foster a **diverse, equitable green workforce and support local climate industries and technologies.** Create partnerships, collaborations and training programs with local businesses, schools, and youth groups to ensure inclusive and equitable access to jobs for all genders, race, ethnicities, and disabilities.
2.3.4	Develop and adopt **green budgeting** and **sustainable procurement** criteria for city projects and purchases.
2.3.5	**Enforce** the city's **Mandatory Recycling Ordinance** for renovation and construction projects citywide.
GOAL 3: INCREASE RESILIENCY and ADVANCE ENVIRONMENTAL JUSTICE	
3.1 Environmental Resiliency Climate Actions in The Works	
3.1	**Protect Stamford residents from the risks and hazards of climate change, including sea-level rise, flooding, and extreme heat.**
3.1.1	Funded through CT DEEP's Climate Resiliency Fund, the city was awarded $210,750 to develop the "**COOLER Stamford: Heat Resilience Action Plan**" focusing on the West Side, Waterside and Downtown neighborhoods. The study will establish and utilize heat sensor data and other environmental and community information to develop a neighborhood heat plan designed to mitigate extreme heat and decrease heat island effects in those areas. 17 heat sensors have been installed.
3.1.2	The **Toilsome Brook Flood Resiliency Plan**, supported by a $598,125 CT DEEP Climate Resiliency Fund, aims to evaluate flooding and drainage issues to determine actions which can be implemented to further protect the Ridgeway-Bullshead neighborhood. The goal is to do a hydrologic and hydraulic analysis as a basis for developing concept level plans, prioritizing nature-based solutions.
3.1.3	With a $481K CT DEEP Grant, the **Cummings Pond Area Flood and Ecological Resiliency Plan** will also include a hydrologic and hydraulic analysis to help determine ways in which flooding at Cummings Pond can be mitigated. Run-off, exacerbated by an overcapacity, 1930's, stormwater outfall which empties into the pond, has contributed to the overgrowth of phragmites, an invasive plant species threatening pond biodiversity.
3.1.4	Stamford's **Coastal Flood Resiliency Plan** is underway supported by a $150k FEMA Grant and covers areas south of I95 within the coastal boundary area. CIRCA (Connecticut Institute for Resiliency and Climate Adaptation on UCONN) will provide flood analysis and modeling for the plan.
3.1.5	The City received a $2.73M **Building Resilient Infrastructure Community Grant (BRIC)** from FEMA to upgrade and repair Stamford's hurricane barrier and improvements to the Dyke Lane, Cummings and Wampanaw Storm Water Pump Stations.
3.1.6	Dredging at **Cove Island Park Marina** is underway and Phase 1 is complete.
3.2 Parks, Green Infrastructure, and Nature-based Solutions Climate Actions In the Works	
3.2.1	**Enhance Stamford's parks and green spaces to create a resilient, vibrant, and equitable public open space network for all to enjoy for generations to come.**

3.2.1.1	Stamford's recently released Citywide **Parks Strategic Plan** created a framework to manage and invest in the sustainability of our parks, beaches, and trails. The plan created goals, priorities, and action items to restore and enhance the City's parks to improve quality of life, public health, address climate issues and ensure all residents have access to a quality park within a **ten-minute** walk.
3.2.1.2	The Stamford Parks Community Partnership was recently established to foster collaboration between the City, local businesses, and residents in developing and maintaining Stamford's parks system and recreational areas. This Partnership will leverage private funding to ensure Stamford's parks are accessible for future generations. It already has several corporate commitments and a dollar-for-dollar match to a $100,000 commitment from Dalio Education. Click here for more information on this partnership.
3.2.1.3	Through a $1M grant from the Department of Agriculture's Urban and Community Forestry program, Stamford is conducting a street tree GIS - based inventory and the **"Growing Stamford Together"** planting project. The inventory will identify 2,500 street tree planting opportunities with the goal of planting 400 additional trees focusing on Downtown, South End, West Side, Cove, East Side, South End and Waterside. The inventory will cover all trees in the City's 380 mile right-of-way and will record the location, species, size, condition, and proximity to utilities and any empty tree pits. Trees will be installed over the next three planting seasons - this coming fall, next spring and the following fall.
3.2.1.4	Stamford is also conducting a **Parks Invasive Species Study** which will create a GIS database of trees in all parks over one acre to establish a baseline and costs associated with a 5-year management plan. Training sessions will be held with park staff and volunteer groups on maintenance techniques for reducing invasive species.
3.2.2 Green Infrastructure Climate Actions in the Works	
3.2.2	**Incorporate green infrastructure measures wherever viable including bioswales, rain gardens, and/or natural floodplain buffers such as dunes, wetlands, etc.**
3.2.2.1	Multiple **bioswales** are being installed wherever viable, depending on the depth of existing utility lines, as part of **transportation capital projects** and intersection improvements across the city including at: Lower Summer, Broad Street, Lower Atlantic, North State Street, Atlantic/Main, Pacific Street and West Main Street.
3.2.2.2	With a $1M federal grant, additional **bioswales** will be built to decrease flooding and filter storm-water runoff, increasing resiliency and protecting the water quality of the Long Island Sound. Sites have been selected for **twenty new bioswales**.
3.2.2.3	As part of the **Springdale School** stormwater management paving and drainage project, a **rain garden** was installed to act as an on-site teaching tool for water quality and conservation. Drainage from the parking lot is designed to flow into the rain garden.
3.2.2.4	Construction of the **Mill River Middle Corridor** is underway, between Tresser Boulevard and Richmond Hill which will act as a natural buffer for flooding and rising river levels as well as providing waterfront access and connection to the Mill River Greenway.
3.2.2.5	As part of a $3M upgrade, green infrastructure measures will be installed at the **Government Center**, along with ADA compliant sidewalk improvements, native species plantings, and a parking area for local food trucks.
3.3 Air Quality Climate Actions In the Works	
3.3	**Reduce indoor and outdoor air pollution and ensure all of Stamford has access to clean, healthy air.**

3.3.1	Stamford has been awarded a $68.8K grant from the EPA to **advance air quality monitoring** with new sensors that will measure pollutants including PM2.5, NO2 and Ozone. These new monitors will supplement Purple Air monitors already in place around the city. Data obtained from these monitors can be combined with heat maps to help pinpoint vulnerable areas and populations.
3.3.2	Stamford has also secured $2.7 m in state reimbursement funding for **HVAC Indoor Air Quality** Grants Program in Stamford Public Schools. Sites identified include Julia Stark, Davenport, Cloonan Middle, Stamford High, Westover, Rippowam and Northeast Elementary.
3.4 Water Quality, Conservation, and Access Climate Actions In the Works	
3.4	**Protect water quality, conserve waterways and beaches, and provide all residents with equitable access to the waterfront.**
3.4.1	Improvements to **Boccuzzi Park** are underway which will include the installation of a dune habit to replace a parking lot. The **dunescap**e will act as natural buffer to sea-level rise. Plans also call for increased pedestrian access to the waterfront. Work at Boccuzzi Park is supported by a $1.81M Outdoor Recreation Legacy Partnership Grant from the National Park Service.
3.4.2	The city's **Environmental Protection Board (EPB)** is responsible for reviewing and issuing special permits for construction on properties near inland wetlands, watercourses, and flood hazard areas, as well as provides technical assistance on environmental impacts on coastal areas, drainage, erosion, open spaces and access to the city's shoreline. During FY 2022-2023, the EPB reviewed approximately 1,700 building permit applications and evaluated 123 formal applications to ensure compliance of EPB water conservation and protection regulations.
3.4.3	To further protect the health and quality of inland waterways and wetlands, the EPB and technical staff developed and instituted a **comprehensive update** of the city's **Inland Wetland & Watercourse Regulations**. New amendments extend the upland review area in non-drinking supply watersheds from 25 feet to 50 feet, which brings Stamford in line with state and surrounding cities and towns minimum review standards.
3.4.4	The **Citywide Stormwater Drainage Assessment** is underway which will analyze our existing system with new, national precipitation frequency standards currently being updated by the National Oceanic and Atmospheric Administration (NOAA). This update, from Atlas 14 to Atlas 15 standards, will be based on predicted increases in precipitation due to climate change. The update will likely lead to necessary increases in drainage capacity and related infrastructure.
3.4.5	**Drainage improvement projects** to culverts, drainage pipes, valves, etc. are ongoing throughout the city and include Barrett Park, Hope Street, 94 Bentwood Drive, 23 Rock Rimmon Lane, Transfer Station, 775 Den Road, 20 River Hill Drive, and Northeast School.
3.4.6	All new **school designs and construction**, including at Westhill High School and Roxbury Elementary, undergo drainage assessments. New construction at Roxbury School includes creating educational opportunities to teach surface storm water treatment, such as rain gardens.
3.4.7	All capital construction projects, including **bridge and paving projects**, undergo drainage and stormwater assessments with improvements when warranted to offset flooding, including **Cedar Heights Bridge** and the **Pave Stamford** initiative which aims to pave 200 roads by 2025. The first 35 have been completed. Studies show that well – maintained, smooth roads increase fuel efficiency, reduce tire resistance and decrease fuel consumption by 2.5% -4.5% which can lead to a 2% reduction in CO2 emissions.

3.4.8	A new inspection of the aging seawall along the solid waste facility on the **East Branch Canal** is complete, updating a 2019 inspection. This new inspection will be used to apply for grants to improve the seawall.
3.4.9	New **promenades at Cummings Park East and West Beach** will provide easy access to the waterfront in those areas.
3.4.10	Through a $1.2M state grant, the **West Beach Boat Ramp** repair and expansion has been completed on time and on budget. The new ramp improves capacity, access and connectivity to Stamford's waterfront for residents and fire and police vehicles.
3.5 Equity, Inclusion and Social Resiliency Climate Actions In the Works	
3.5	**Ensure all residents and businesses have inclusive, equitable access to all city services, including during extreme climate emergencies.**
3.5.1	Stamford has established numerous **cooling, heating, and flooding respite centers** citywide for daily and overnight public use in times of extreme weather, including extreme heat, extreme cold, flooding, and hurricanes.
3.5.2	Through a grant from the National Association of City and County Health Organizations, the City's Public Health Department provided free **Emergency To-go Backpacks** for residents. The backpacks were filled with information and supplies needed in case of emergency evacuation/relocation due to extreme weather events.
3.5.3	To support small businesses, Mayor Simmons created the **COVID-19 Small Business Resiliency Grant** program to assist local businesses impacted by the COVID Pandemic. The city distributed grants to 176 businesses, including 120 minority or women-owned businesses and 34 Hispanic-owned businesses.
3.5.4	In addition, the **Community Micro-Grant Program** launched last year awards grants to informal grassroot organizations, neighborhood associations and community-wide efforts aimed at improving the quality of life across Stamford's neighborhoods. In 2023, the City awarded grants to 21 organizations ranging from $1,500 to $8,000 each.
3.5.5	To help ensure Stamford residents have access to affordable housing, the city completed its state-mandated **Housing Affordability Plan** in 2022, to evaluate current conditions, assess needs, and recommend strategies to increase the affordable housing stock. Mayor Simmons also released the first Affordable Housing Executive Order, with the goal of creating or renovating 1,000 affordable housing units by 2025. 637 units have been completed or are in the pipeline. Another 105 Below Market Rate (BMR) units are under construction with 1,200+ BMR units citywide. Funded through a FY23 budget surplus, $2M has been added to the Affordable Housing Trust Fund.
3.5.6	In February of 2023, the City created the **Veterans Resource Center** at Old Town Hall, already connecting approximately 200 veterans with resources and services.
3.5.7	The city's Walk-**In Permitting** program has been made permanent with dedicated space on the 7th floor of the Government Center. Hours of operation are every other Wednesday from 9:30 a.m. to 12:00 p.m. The Program is designed to answer questions and streamline the permitting process for residents and businesses. The average wait time has been reduced from two years to 90 days.
3.5.8	To further engage with all citizens, the city created a QR code to encourage residents with disabilities to **register their locations** with first responders so that they may provide support and/or **evacuation assistance** if needed during extreme weather events including hurricanes.
3.5.9	Stamford is working to achieve **ADA Compliance** citywide by upgrading sidewalks and intersections and improving access to the city's parks and beaches.

3.5.10	The Mayor recently conducted a listening tour of senior housing facilities to hear directly from residents. The Mayor also established a **Senior Advisory Council** to advocate for senior needs and services.
3.5.11	The Mayor's **Business Advisory Council** now includes more than 75 companies and meets at least twice per year.
3.5.12	The newly launched **Small Business Resource Center,** accessed here, provides numerous tools and resources to help support Stamford's small business community. The city provides in-person meetings with community groups and small businesses including convening workshops on different topics such as how to gain access to capital. The City also created the "**Shop Local**" campaign and directory, hosting a holiday and spring shop with local small businesses at the Government Center.
3.5.13	Recent improvements to **Fix It Stamford** have resulted in reduced resolution times for requests by 15-20%.
3.5.14	In collaboration with nonprofits and community providers, the Mayor launched the **Youth Mental Health Alliance** to implement community-based strategies to address the youth mental health crisis, including the "Don't carry it alone. We've got you," public awareness campaign.
3.5.15	To recognize and celebrate Stamford's diversity, the city holds numerous cultural events year-round including parades, flag raising, etc. In addition, the city's Arts & Culture Commission awards annual grants to recipients committed to providing quality programs that are accessible, diverse, and innovative for Stamford residents and add to Stamford's artistic and cultural scene.
3.6 - Increase Resiliency and Advance Environmental Justice: Next Steps	
3.6.1	Seek funding for an **East Side Community Sustainability Stewardship Project** which would partner with neighborhood organizations and residents to care for newly planted trees and bioswales, potentially creating jobs through stewardship opportunities.
3.6.2	**Secure funding for bridge projects including** Old Long Ridge Road Bridge, Mill Road Bridge, Cascade Road Bridge, and the Dannell Drive Culvert.
3.6.3	Implement recommendations developed through resiliency planning projects, including the **Downtown Heat Study** and the **Cummings Pond and Toilsome Brook Resiliency Studies**.
3.6.4	**Coordinate roadway construction projects** including utility repairs, green infrastructure installations, paving, sidewalk construction, ADA compliance, etc.
3.6.5	Install and maintain twenty **bioswales** across selected sites in Stamford.
3.6.6	Execute **Stamford's Strategic Park Action Plan** to empower, celebrate, connect, and grow the city's green space network so that all residents have access to a quality park within a ten-minute walk.
3.6.7	Utilizing data from air quality monitoring, develop a plan, prioritize actions, and implement strategies to **improve air quality** especially for the most impacted neighborhoods.
3.6.8	Explore the potential to develop community **resiliency hubs** in times of extreme weather which could not only provide shelter, but also directly connect impacted individuals and communities with service agencies and other organizations to provide essential resources.
3.6.9	Designate and award recipients for the **2024 Community Micro-Grant Program** and distribute $75,000 to community and neighborhood projects.
3.6.10	Conduct **outreach and education** to promote sustainable behaviors at home, at school, at work, and in neighborhoods

3.6.11	Work with **Pollinator Pathway Stamford** to design, plant and maintain native species on city properties, including the Government Center's 4th floor rooftop patio, lawns and gardens.

Private Sector Investment in Clean Energy Projects

Figure 38 – Solar Array Installations By Permit

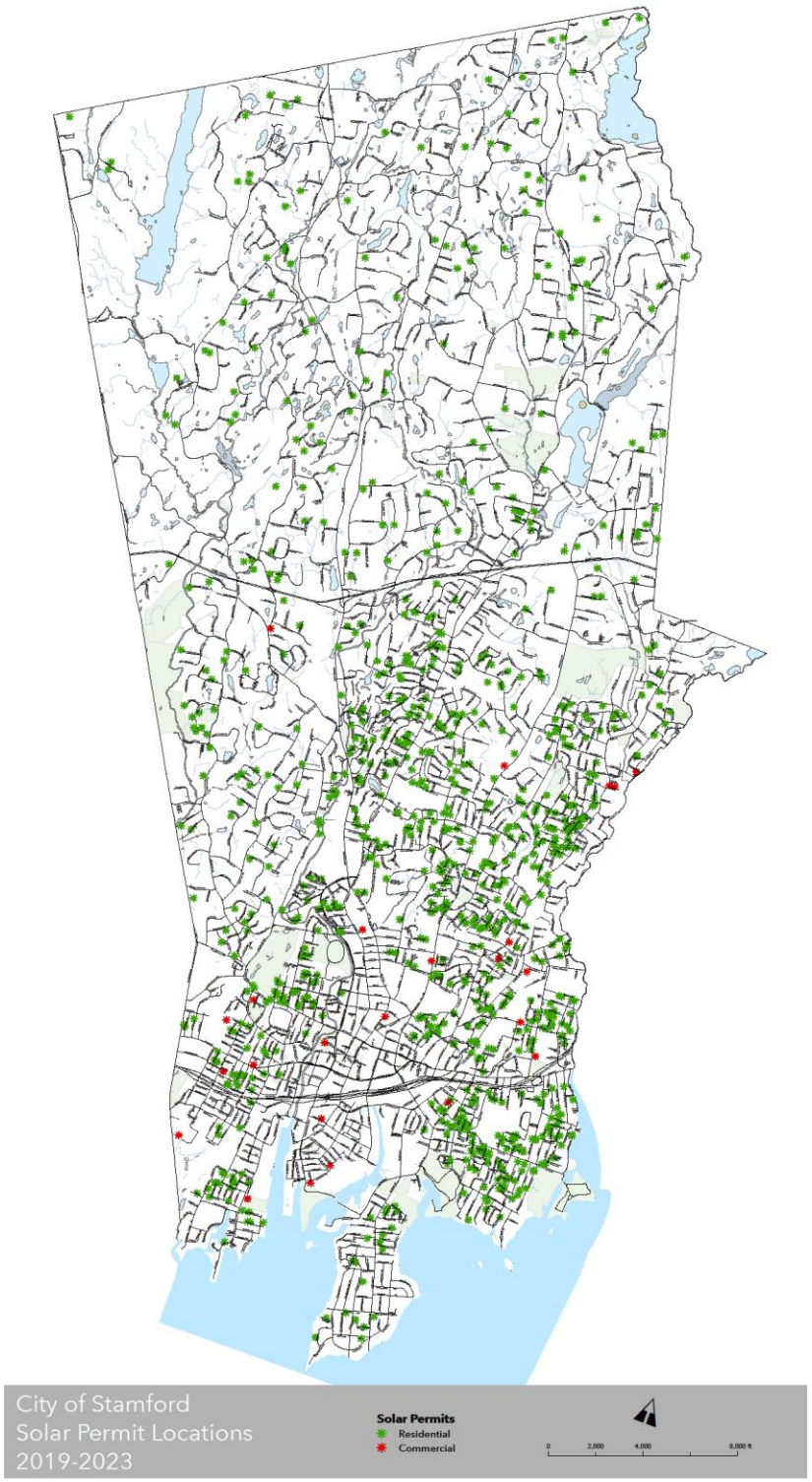
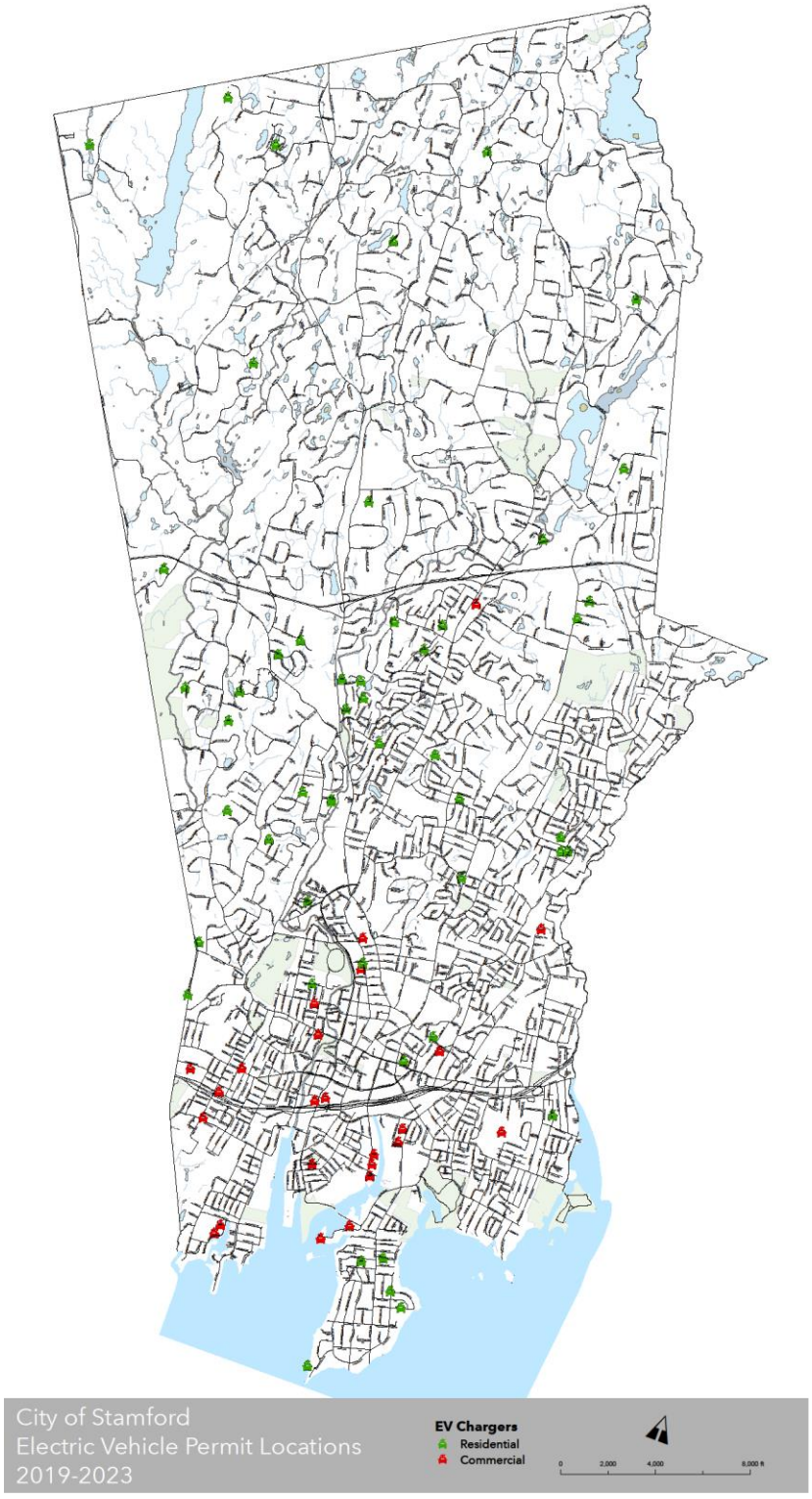
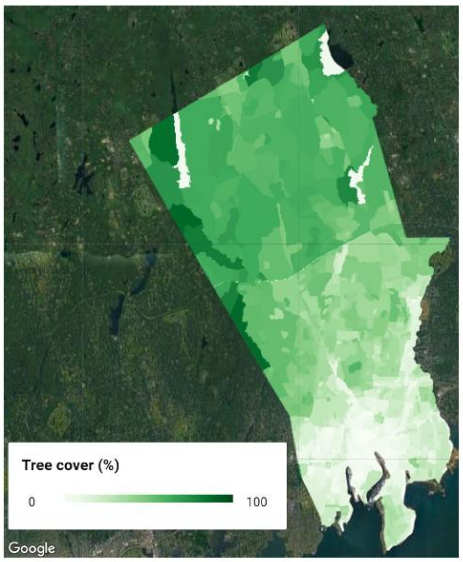
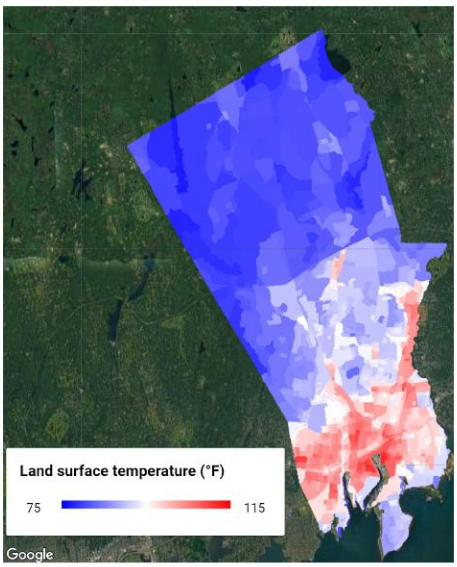


Figure 39 – EV Charger Installation Projects by permits







The two maps above depict the preliminary results of a recent study evaluating Stamford's tree canopy coverage and its impact on surface temperatures.[51] The areas with the least tree coverage are also home to the highest temperatures

[51] Impactful Tree Planting Strategies to Mitigate Heat Inequalities in Connecticut, Hixon Center for Urban Sustainability, Yale School of the Environment, 2024.

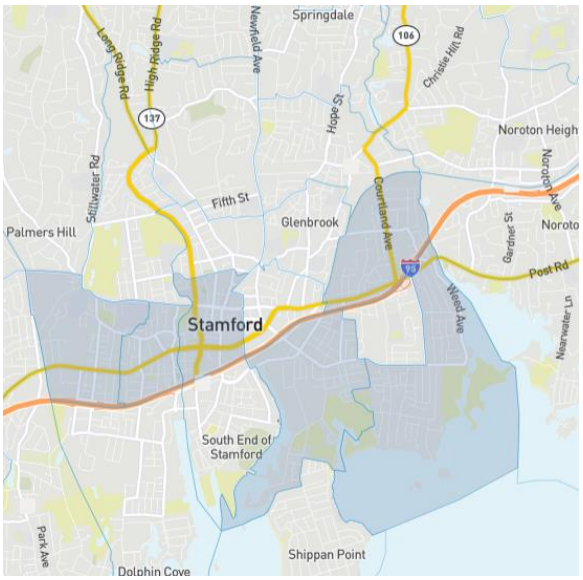
Socio and Economic Census Tract Analysis of Stamford's West Side

	Census Tract 214.01	Census Tract 214.02	Census Tract 215.01	Census Tract 215.02	Stamford	Connecticut	United States
Minority	87.9%	74.7%	93.4%	89.6%	51.5%	35.1%	40.6%
Hispanic	64.0%	36.0%	56.1%	48.7%	27.8%	16.9%	18.4%
Black	20.1%	32.0%	35.4%	42.5%	15.0%	13.1%	14.3%
No High School Degree	28.2%	7.2%	35.1%	33.0%	10.9%	8.9%	11.1%
Median Household Income	$75,128	$68,424	$43,585	$43,708	$99,791	$83,572	$69,021
Poverty	6.7%	14.1%	19.0%	10.7%	9.4%	10.0%	12.6%
Food Stamps/SNAP Benefits	8.3%	23.2%	23.8%	20.2%	8.1%	11.5%	11.4%
Foreign Born	40.9%	37.2%	40.8%	39.6%	32.1%	14.8%	13.6%
Foreign Language Spoken at Home	68.1%	51.4%	70.7%	47.7%	41.7%	22.3%	21.7%
No Vehicle	13.1%	17.0%	12.2%	21.1%	9.4%	8.5%	8.3%
Only 1 Vehicle Available	43.4%	37.2%	63.1%	25.2%	40.2%	33.0%	32.5%
Commute by Walking/Biking	13.7%	0%	12.8%	10.4%	5.4%	2.8%	2.9%
Commute by Transit	7.2%	12.1%	13.7%	8.1%	10.7%	3.8%	4.2%
Under 18 Years Old	28.2%	17.8%	23.4%	25.2%	19.6%	20.6%	22.5%
Age 65 and Over	6.1%	19.4%	7.2%	18.7%	15.3%	17.2%	16.0%
Persons with Disabilities	14.9%	14.7%	5.0%	12.8%	8.4%	11.4%	12.6%

Overburdened communities in Stamford identified by national and state screening tools.

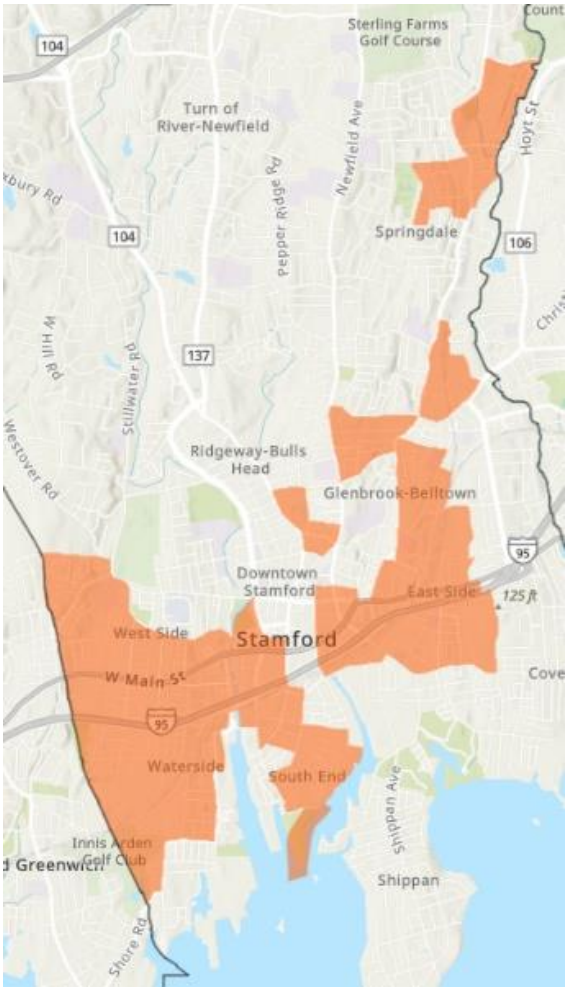
Figure 40 – Map of overburdened and underserved census tracts in Stamford as identified by CJEST.

This tool was developed by the National Council of Environmental Quality to identify Justice40 target areas.[52]



Source: National Climate and Economic Justice Screening Tool (CJEST)., US Council on Environmental Quality.

Figure 41- Map of 2023 CT Environmental Justice Census Block Groups in Stamford.[53]

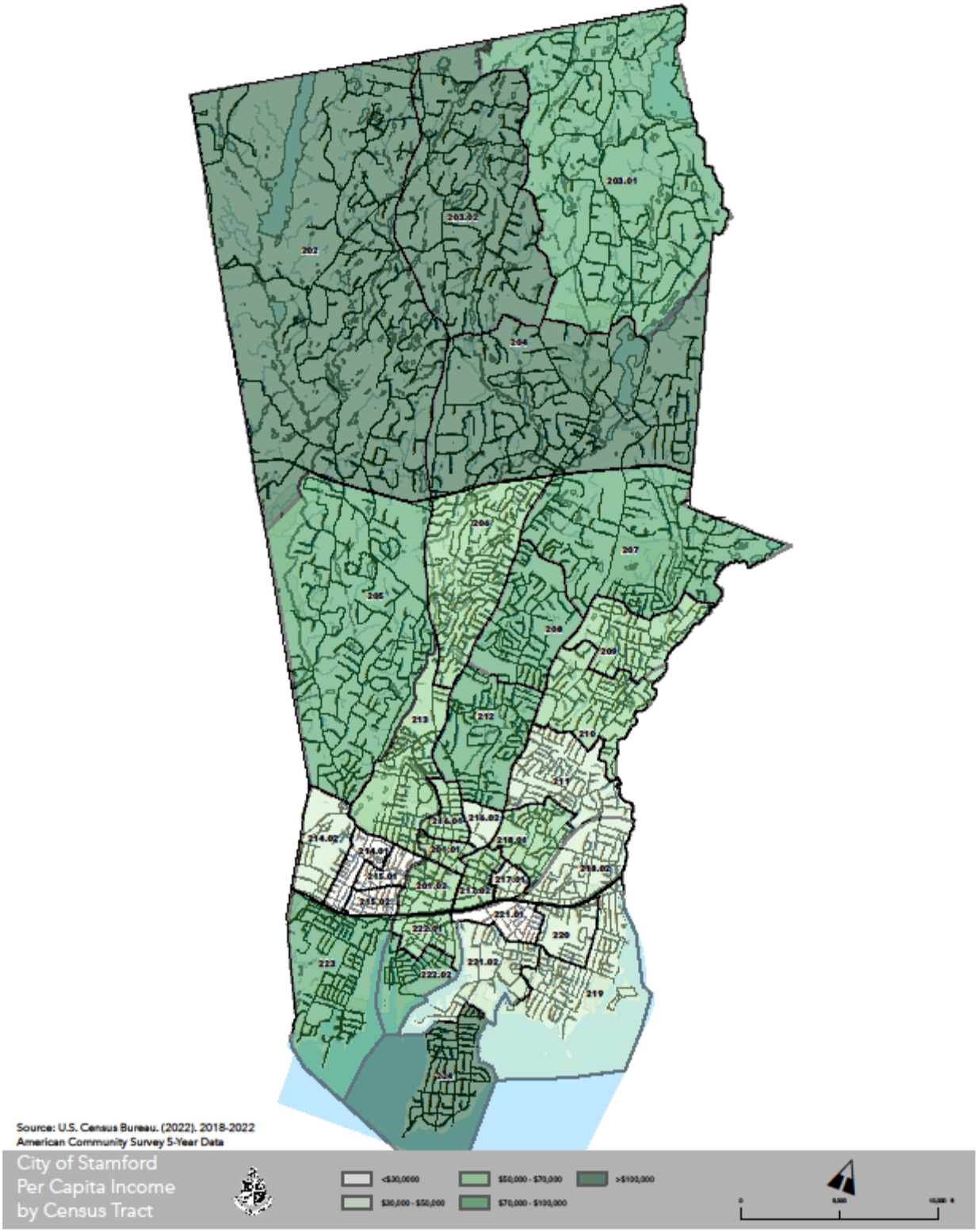


Source: CT Environmental Justice Communities Map, CT DEEP.

[52] CJEST uses "datasets that are indicators of burdens in eight categories: climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development." Which "seeks to deliver 40% of the overall benefits of investments in climate, clean energy, and related areas to disadvantaged communities."

[53] EJ Communities are defined by CT DEEP as "census block groups where 30% of the population is living below 200% of the federal poverty level."

Figure 42-Average Income by Census Tract



ICLEI Baseline Estimate of Carbon Emissions by Sector

Sector	Fuel or Source	2021 Usage	Usage Unit	2021 Emissions (Mt CO2e)
Residential Energy	Electricity	497,056,774	kWh	120,162
	Natural Gas	2,220,832	MMBtu	118,118
	Propane	312,199	MMBtu	19,375
	Distillate Fuel Oil	978,053	MMBtu	72,822
Residential Energy Total				330,477
Commercial & Industrial Energy	Electricity	746,232,557	kWh	180,399
	Natural Gas	2,296,470	MMBtu	122,141
Commercial & Industrial Energy Total				302,540
Transportation & Mobile Sources	Gasoline	589,381,885	VMT	243,092
	Diesel	61,041,090	VMT	88,744
	Public Transit	410,450	Gallons	3,608
Transportation & Mobile Sources Total				335,444
Solid Waste	Waste Sent to Landfill	69,034	Tons	82,293
	Compost	61,066	Tons	3,038
Solid Waste Total				85,331
Water & Wastewater	Septic Systems			2,285
	N2O			369
	Methanol			712
Water & Wastewater Total				3,366
Process & Fugitive	Natural Gas Distribution	4,517,302	MMBtu	7,837
Process & Fugitive Total				7,837
Total Community-Wide Emissions				1,064,995

Source: Stamford, CT 2021 Inventory of Community and Government Operations GHG Emissions.2023.

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