RESILIENT WILMINGTON

3 YEARS OF PROGRESS AND THE PRIORITIES AHEAD

SUMMER 2025

CONTENTS

ACRONYMS

CERT	Community Emergency Response Training
DELDOT	Delaware Department of Transportation
DNREC	Department of Natural Resources and Environmental Control
DPW	Department of Public Works
FEMA	Federal Emergency Management Agency
GHG	Greenhouse Gas Emissions
GI	Green Infrastructure
SLR	Sea Level Rise
PDE	The Partnership for the Delaware Estuary

FOREWORD

KELLY WILLIAMS

Commissioner
Department of Public Works
City of Wilmington

The Resilient Wilmington plan represents a critical vision for addressing climate change's biggest impacts on Wilmington. By establishing the interdepartmental working group, we supported the implementation of the Resilient Wilmington Plan and strategically tackled the city's resilience needs, prioritizing collaboration and forward-thinking solutions. Together, we are making significant progress in preparing Wilmington to better withstand heavy precipitation, tidal flow, extreme heat, and other environmental stressors. This coordinated approach allowed us to not only respond to immediate challenges but also proactively build a more resilient future for our city and its residents.

Reflecting on the three years since the plan's implementation, it is clear that the interdepartmental working group is instrumental in driving progress. By breaking down silos and fostering collaboration across departments, we streamlined efforts to identify vulnerabilities, implement solutions, and adapt to evolving challenges. This work strengthened our city's ability to mitigate risks, protect critical infrastructure, and safeguard the well-being of our residents. However, resilience is an ongoing process. To ensure Wilmington continues to thrive in the face of future storms, rising temperatures, and other challenges, we must continue to maintain this momentum and push the work forward together.

The Resilient Wilmington plan update offers us an opportunity to assess our achievements and chart a path for the future. We have the chance to build on the foundation laid over the past three years, refine our strategies, and enhance our collective impact. The resilience work we do today will ensure that Wilmington is prepared for tomorrow's uncertainties.

With continued collaboration and a shared commitment to protecting and strengthening our city, we can weather future storms and hot days together—creating a safer, healthier, and more sustainable Wilmington for generations to come.

Sincerely,

Kelly Williams

EXECUTIVE SUMMARY

In the three years since the Resilient Wilmington Plan was published in 2022, the City of Wilmington, Delaware, has made great strides to build resilience. Residents of Wilmington are already experiencing the impacts of climate change: flooding from extreme precipitation and tidal surges is becoming more prevalent; the number of hot and humid days are rising; communities of historically marginalized communities are already disproportionately impacted by climate stressors and will likely experience growing impacts. In specific, the remnants of Hurricane Ida brought torrential downpour of flooding to vulnerable areas of the City.

To continue building a prosperous, equitable, and resilient city, and to actively combat future climate impacts, Wilmington is acting today. Resilience is the ability of systems and individuals to adapt to and withstand future shocks and stresses. It will mean modifying physical structures, rethinking how we plan and build for the future, and embedding neighborhoods with the capacity to turn challenges into opportunities.

The City of Wilmington's resilience efforts are founded on the pillars of:

Our vision is to create an innovative model for urban climate adaptation and action where everyone who lives, works, and spends time here can contribute to building a sustainable and resilient community. By acting now to build resilience, the City of Wilmington is working towards a prosperous, equitable, and resilient future for all.

RESILIENT WILMINGTON IN NUMBERS SINCE 2022:

- 48 Acres of stormwater managed across four project areas to reduce stormwater runoff.
- $51 Million invested in projects that improve the resilience of our communities.
- $25 Million in grants secured for resilience projects.
- 8 city departments and offices have collaborated on resilience initiatives.

This report shares the progress made, the challenges faced, and what we have learned since the Resilient Wilmington Plan was released in 2022.

It focuses on the following sections of plan implementation:

- **The Need for Resilience**
- **The Interdepartmental Working Group**
- **Progress on Our Goals**
- **Project Highlights:**
  - Community Outreach and Capacity Building
  - Flood and Heat Resilience Infrastructure Improvements
  - Resilience-Related Studies
  - Emergency Event Response
  - Greenhouse Gas Reduction Initiatives

The report culminates with a vision for a way forward – a continuation of the critical resilience work in the City of Wilmington.

THE NEED FOR RESILIENCE

WHAT IS RESILIENCE?

Resilience is the ability of systems, individuals, and communities to adapt to and withstand future shocks and stresses. It will mean modifying physical structures, rethinking how we plan and build for the future, and embedding neighborhoods with the capacity to turn challenges into opportunities.

RESILIENCE IN WILMINGTON

Wilmington, located about 30 miles south of Philadelphia and 100 miles north of Washington, D.C., is the largest and most populous city in Delaware. Located at the confluence of the Brandywine and Christina Rivers, the proximity to water has long been an economic driver for the city, both historically as an industrial waterfront and recently as waterfront areas have been reimagined into mixed-use cultural and entertainment districts.

Climate change creates a new set of challenges. Sea level rise, rising temperatures, and changing precipitation patterns threaten to inundate low-lying neighborhoods, overwhelm drainage infrastructure, and stress vulnerable communities. In the last 5 years, Delaware has experienced 8 extreme weather events (NOAA Billion Dollar Disasters Database, 2025). Increasingly, the City of Wilmington has placed a focus on addressing the impacts climate change has on environmental justice and socially vulnerable communities.

Impacts from climate change are already reaching the City of Wilmington. 2023 and 2024 have been the hottest and third hottest years on average in the last 25 years (National Weather Service, 2025), placing Wilmington residents at risk of heat-related illnesses. Extreme precipitation and storm events, including periodic high tide flooding in South Wilmington and the remnants of Hurricane Ida in 2021, caused damaging floods in some of Wilmington's most vulnerable communities. Extreme heat and flooding events will likely grow in frequency, necessitating swift action in the city.

To address these challenges, the City of Wilmington needs to build resilience. Acting now will allow the city to leverage resilience measures to not only address vulnerabilities but also drive economic growth. Since its inception three years ago, Resilient Wilmington has driven strategic resilience initiatives in the City, facilitated through interdepartmental collaboration.

THIS REPORT

The City of Wilmington has been working to forge a more resilient, prosperous, and equitable City over the past 3 years -- progress which is documented in this report.

EXTREME HEAT:

Rising temperatures can have many negative effects on human health and the City's physical infrastructure. High temperatures can lead to heat-related illness, exacerbate chronic illnesses, increase infectious diseases spread by mosquitoes and ticks. Extreme heat can also impact road and rail infrastructure integrity, worsen air quality.

FLOODING:

Flooding is the temporary inundation of land that is typically dry. Wilmington is susceptible to a few different types of flooding, all of which are likely to worsen with climate change. There are three main types of flooding in Wilmington, riverine, coastal (storm surge and tidal), and stormwater.

- Riverine Flooding - Rivers and creeks can overtop stream banks after rainfall events.
- Coastal Flooding - Coastal flooding happens when water from the ocean and tidal rivers like the Christina River flows onto land due to factors like extreme high tides and storm surge.
- Stormwater Flooding - Stormwater flooding occurs when heavy rainfall creates a flood independent of an overflowing water body.

PLAN IMPLEMENTATION

Since 2017, the City of Wilmington has been designing and executing strategies to make the City more resilient. Through DNREC, the City received a planning grant to fund the creation of the Resilient Wilmington Plan which included a risk assessment for climate change related flooding and extreme heat hazards, and a visioning and planning process for improving the City's resilience. Since release of the Resilient Wilmington Plan in 2022, the Resilient Wilmington initiative has evolved from a foundational document into a comprehensive city-wide effort aimed at embedding resilience across Wilmington's planning, programs, projects, and operations. This transformation was catalyzed by the formation of the Resilient Wilmington Interdepartmental Working Group in 2023, which united staff from various city departments to collaboratively implement the plan's goals.

RESILIENT WILMINGTON INTERDEPARTMENTAL WORKING GROUP

Overall plan development and implementation efforts have been funded by the Department of Public Works. However, funding for individual resiliency related projects is associated with the relevant department. In order to facilitate implementation of the plan and coordinate interdepartmental efforts the Interdepartmental Resilient Wilmington Working Group was founded in March 2023. The Working Group is comprised of City department heads and key staff members, representing Public Works, the Mayor's Office, Parks and Recreation, City Planning, Economic Development, Emergency Management, and Legal. These departments work together to advise and contribute to the successful delivery of the projects and programs outlined in the plan.

The Working Group is guided by two central goals:

- Advise on matters related to the plan's implementation and the development of related programs and initiatives
- Coordinate to help refine and advance key recommendations where collaboration is necessary across City authorities

The Working Group is a platform for ongoing coordination between City departments and guides the decision-making process associated with the Resilient Wilmington initiative. Led by the Department of Public Works, the Working Group has vetted information, provided a critical testing ground for concepts before they are advanced beyond the conceptual stage, and built consensus around decisions.

RESILIENT WILMINGTON PRIORITIZED GOALS

The Resilient Wilmington Plan is a living document intended to evolve with the City's needs. When published in 2022, the plan set out to accomplish 19 goals with 72 supporting recommendations. The original goals can be found in the Resilient Wilmington Plan. To prioritize goals that have the greatest impact, the Resilient Wilmington Working Group identified seven priority goals for 2023 and 2024. The priority goals were:

1. Expand green infrastructure for storage and conveyance
2. Raise shorelines in low-lying areas to prevent flooding
3. Further education, outreach, and partnerships to enhance community resilience
4. Build resiliency of food systems
5. Reduce the City's carbon footprint by investing in and advocating for cleaner transportation options
6. Incorporate resiliency and sustainability into the City's codes, planning, and development review
7. Improve resiliency of neighborhoods

These goals have guided the resilience-related projects that the City has advanced, including those detailed in the following section.

FROM PLAN TO INITIATIVE

2017 – 2018	Received Funding through DNREC Division of Climate, Coastal, and Energy's Sustainable Communities Planning Grant for Developing the Resilient Wilmington Plan
2018 – 2022	Developed the Resilient Wilmington Plan, COVID-19 Pandemic Pause
March 2022	Released the Resilient Wilmington Plan
March 2023	Working Group #1: Launched the Resilient Wilmington Working Group
July 2023	Working Group #2: Understanding the Priorities of the Working Group
September 2023	Working Group #3: Defining Key Initiatives
January 2024	Working Group #4: Establishing Key Initiatives
April 2024	Working Group #5: Sharing Key Initiative Progress
August 2024	Working Group #6: Sharing Lessons Learned at Multiple Scales
December 2024	Working Group #7: Reviewing Our Progress and Charting A Path Forward

PROJECT SUCCESSES

Resilient Wilmington's progress is a testament to the success of its diverse range of projects, programs, and outreach efforts. Through initiatives aimed at building community resilience, such as infrastructure improvements, energy efficiency efforts, and educational outreach campaigns, Resilient Wilmington has strengthened its foundation for sustainable growth and development. On the following pages we celebrate the ways the City is fostering collaboration among stakeholders and prioritizing innovation to continue paving the way for a more resilient and thriving Wilmington.

COMMUNITY OUTREACH AND CAPACITY BUILDING

These efforts focus on engaging and empowering Wilmington's residents by providing education and resources to build local capacity for climate resilience. Keeping the community informed, prepared, and actively participating in resilience efforts help foster a collaborative approach to becoming a more resilient city.

FLOOD & HEAT RESILIENCE INFRASTRUCTURE IMPROVEMENTS

Improvements involve upgrading and enhancing infrastructure to better withstand flooding and extreme heat events, which are becoming more frequent due to climate change. This is vital for protecting the city's infrastructure, reducing economic losses, and ensuring the safety and well-being of its residents.

RESILIENCE-RELATED STUDIES

Conducting studies related to resilience helps the city understand its vulnerabilities and develop data-driven strategies to address them. These studies provide the necessary insights and information to guide effective decision-making, policy development, and project prioritization for resilience.

EMERGENCY EVENT RESPONSE

Strengthening emergency response capabilities ensures that Wilmington can effectively manage and mitigate the impacts of extreme weather events. This is important to minimize harm to residents and infrastructure and to facilitate quick recovery following an event, maintaining the city's functionality and safety.

GREENHOUSE GAS REDUCTION INITIATIVE

These initiatives aim to reduce the city's carbon footprint by promoting energy efficiency, renewable energy, and sustainable practices. They are crucial for mitigating the broader impacts of climate change, contributing to global efforts to limit temperature rise, and improving local air quality and public health.

COMMUNITY OUTREACH AND CAPACITY BUILDING

EARTH AND ARBOR DAY CELEBRATION 2023, 2024, 2025

LOCATION:

Cool Springs Reservoir Park

ASSOCIATED GOAL:

Further education, outreach, and partnerships to enhance community resilience

OVERVIEW:

This community-centered, kid-friendly event brought together community members, city departments, and vendors to celebrate Earth and Arbor Days. At this event, the city celebrated sustainability efforts and educated the public about trees and native plants. Earth and Arbor Day 2025 had 6 schools attend, 62 participating exhibitors and an estimated over 500 community member visitors. Exhibitors included environmental organizations, nonprofits, and businesses, including Delaware Urban Farm and Food Coalition, Plastic Free Delaware, Sierra Club, and more. Planning and funding for the event was provided by the Department of Public Works. To educate the community on Resilient Wilmington, the Department also hosted a table.

Earth and Arbor Day 2025

Earth and Arbor Day 2025

COMMUNITY OUTREACH AND CAPACITY BUILDING

OUTDOOR LIVING CLASSROOM AT COOL SPRINGS PARK

LOCATION:

Cool Springs Reservoir Park

ASSOCIATED GOAL:

Further education, outreach, and partnerships to enhance community resilience

OVERVIEW:

If you had to create a rule book for outdoor adventure, would you know where to start? In late 2019, the City of Wilmington, in collaboration with the Partnership for Delaware Estuary, started imagining ways to connect our wonderful constituents with the nature around them. While taking a day trip to a Delaware beach is a great activity, the City of Wilmington sought to encourage adventure in our own backyard. Convenient access to free outdoor space can help people of all ages de-stress from their busy lives and rejuvenate their spirits, which drove the Department of Public Works to create its first outdoor exploration space. Adults can use this space to enjoy nature, read a book, or eat lunch at the farmers' market. School-aged children and their teachers can use this space to enjoy a cool breeze while learning about any subject. It took around five years, four different park locations, and lots of helping hands to create this new gathering place located at Cool Springs Reservoir Park.

Planning was provided by the Department of Parks and Recreation and the Department of Public Works. Funding was provided by a grant obtained by the Partnership for the Delaware Estuary.

Cool Springs Reservoir Park Outdoor Classroom

FLOOD & HEAT RESILIENCE INFRASTRUCTURE IMPROVEMENTS

RESILIENCY PARK UPGRADES

LOCATIONS:

Cool Springs Park, Spencer Plaza, Rodney Square Park, Barbara Hicks Park, 15th and Walnut, and Ongoing Collaborations at Other Parks

ASSOCIATED GOALS:

Expand green infrastructure for storage and conveyance; Improve resiliency of neighborhoods

OVERVIEW:

In addition to notable improvements to park amenities such as playgrounds and walkways, park improvements have incorporated key resilience elements, including water storage and conveyance enhancements, tree preservation and plantings, and more. Future resilience-related collaborations between the Parks Department and the Department of Public Works have been identified (i.e., Camby Park).

PUBLIC POOLS AND SPRAY PARKS

LOCATIONS:

Helen Chambers Park, Mack Park, Father Tucker Park, Kosciusko Park, Woodlawn Park, Rodney Square Park, Brown-Cihocki, Eden Park Pool

ASSOCIATED GOAL:

Improve resiliency of neighborhoods

OVERVIEW:

Public pools and spray parks have been either improved or developed to help neighborhoods on hot days. Through spray parks and pools, residents, especially youth, are able to cool off and find respite during heat waves.

NATIVE TREE PLANTING – CANOPY COVER EXPANSION

LOCATION:

Kirkwood Park

ASSOCIATED GOAL:

Improve resiliency of neighborhoods

OVERVIEW:

The Department of Parks and Recreation worked with The Partnership for the Delaware Estuary to strategically expand the tree canopy in Kirkwood Park. The City worked with residents to educate them about the benefits of increasing the tree canopy. This project serves as a model the City hopes to build from for future tree expansion projects.

FLOOD & HEAT RESILIENCE INFRASTRUCTURE IMPROVEMENTS

SOUTH WILMINGTON WETLANDS PARK AND STORM SEWER SEPARATION

LOCATION:

Southbridge Community

ASSOCIATED GOALS:

Expand green infrastructure for storage and conveyance; Improve resiliency of neighborhoods

OVERVIEW:

The South Wilmington Wetlands Park helps manage stormwater in parts of the Southbridge Neighborhood in South Wilmington. This area has seen repetitive flooding events over the years stemming from a combination of rainfall and tidal water from the Christina River. The 2006 Special Area Management Plan identified opportunities to utilize wetlands to help address flooding in the area. In 2018, the City of Wilmington received funding from many sources, including a $2.9 million grant from the National Fish and Wildlife Foundation and the National Oceanic and Atmospheric Administration. These wetlands now serve the dual purposes of both cleaning excess stormwater and diverting stormwater away from the wastewater treatment plants. Visitors can experience the park via a public boardwalk, and a self-guided QR coded tour, offering Southbridge a new community amenity and enhancing connectivity across the neighborhood.

Planning was provided by the Department of Public Works and the Office of Economic Development. Funding was provided by the City of Wilmington, DNREC, NFWF, and the Nature Conservancy.

Tina Betz Urban Arts Exchange Amphitheater

Southbridge Wilmington Wetlands Park, Tetra Tech 2024

TINA BETZ URBAN ARTS EXCHANGE AMPHITHEATER

LOCATION:

15th Street and Walnut Street

ASSOCIATED GOALS:

Expand green infrastructure for storage and conveyance; Further education, outreach, and partnerships to enhance community resilience

OVERVIEW:

The Urban Arts Exchange Amphitheater project reimagined the former site of the City's fire department horse stables. The Department of Public Works partnered with CityFest to both provide a great outdoor amenity for the city and separate the sewer and stormwater systems below the site. Since its completion, the summer concert series has hosted thousands of residents and guests and reduced the quantity and frequency of Combined Sewer Overflows into Brandywine Creek. This project has also won a Water Resources Association Achievement Award for their "state of the art green infrastructure designed collaboratively with multiple community interests" (WRA, 2024).

Planning was provided by CityFest and Department of Public Works. Funding was provided by the City of Wilmington, Longwood Foundation, EPA, and DNREC.

RESILIENCE-RELATED STUDIES

SOUTH WILMINGTON SHORELINE PROTECTION AND INTERIOR DRAINAGE STUDY

LOCATION:

South Wilmington

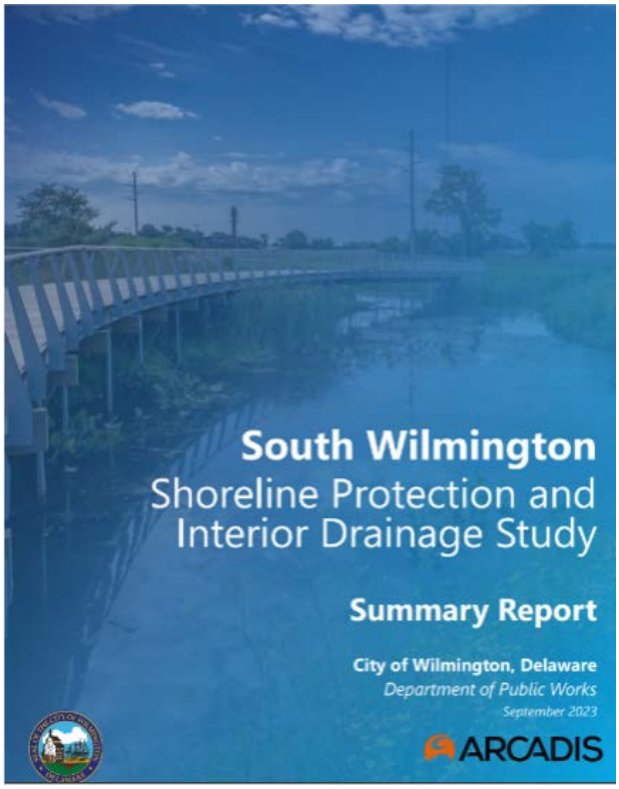
ASSOCIATED GOALS:

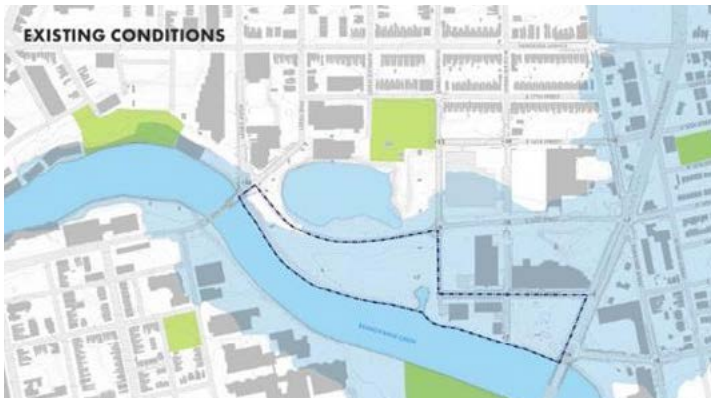
Raise shorelines in low-lying areas to prevent flooding; Further education, outreach, and partnerships to enhance community resilience

OVERVIEW:

This study explored opportunities for flood protection in South Wilmington community and was funded by a FEMA Flood Mitigation Assistance grant. By exploring the kinds of flooding impacting this area and quantifying the expected damages, the study identified critical areas in need of protection and developed possible strategies that would provide flood protection. A multi-pronged approach is needed to reduce current and future flood risks for the vulnerable populations living in the South Wilmington community.

Planning was provided by the Department of Public Works and funding was provided by the City of Wilmington and DEMA/FEMA.





FEMA Projected 1% Annual Chance Flooding Along Brandywine Creek

LOWER BRANDYWINE RIVER FLOODING STUDY AND MITIGATION STRATEGY

LOCATION:

Northeast Wilmington Neighborhood

ASSOCIATED GOALS:

Raise shorelines in low-lying areas to prevent flooding; Further education, outreach, and partnerships to enhance community resilience

OVERVIEW:

The Lower Brandywine River Flooding Study and Mitigation Strategy is an ongoing effort that complements the City's previous and ongoing efforts to better understand and mitigate flooding in high flood risk neighborhoods. The project aims to develop a community-supported concept design for flood risk reduction within the project area in the Northeast Wilmington neighborhood. The project runs along the northeastern shoreline of Brandywine Creek from the 16th Street Bridge (upstream extent) to Northeastern Boulevard (downstream extent) in the Northeast Wilmington neighborhood. The area includes vacant parcels, a Department of Public Works maintenance yard, and various commercial/industrial spaces. Ultimately, the proposed concept design will help mitigate flood risk in the Northeast Wilmington neighborhood.

Planning was provided by the Department of Public Works and funding was provided by DEMA/FEMA and the City of Wilmington.

EMERGENCY EVENT RESPONSE

HURRICANE IDA - COMMUNITY EMERGENCY RESPONSE TRAINING AND RECOVERY

LOCATION:

Northeast Wilmington Community

ASSOCIATED GOALS:

Further education, outreach, and partnerships to enhance community resilience; Improve resiliency of neighborhoods

OVERVIEW:

Hurricane Ida brought torrential downpours, rising water levels, and flash flooding to Wilmington. Drains and roads were inundated and businesses/homes were damaged by the rapidly rising water levels in the Brandywine Creek. The Northeast Wilmington community was particularly impacted. In response, the City of Wilmington worked with Northeast Rising, the First Delaware Resiliency Hub, and the community on various recovery efforts to ensure safety and to expedite neighborhood clean-up. Since the flood, the City has partnered with these entities to offer Community Emergency Response Training (CERT) to help community members prepare to respond in times of disasters. These training courses are investments in the future resiliency of the community and support the state-wide CERT training plan. In addition to CERT training, the City has supported the 11th Street Peninsula Long Term Recovery Group. The Recovery Group is a 501c3 nonprofit organization and partners with other local groups to provide critical community services, including office space, wraparound services, and more.

Flooding of Brandywine Creek After Tropical Storm Ida 2021

GREENHOUSE GAS REDUCTION INITIATIVES

The City of Wilmington aimed to reduce greenhouse gas emissions by 50% as compared to 2010 levels by 2030. To date, the City has reduced emissions by 42% at City-owned buildings, streetlights, water and wastewater facilities, and through the City's vehicle fleet. Key GHG reduction projects have included:

WASTEWATER TREATMENT PLANT COGENERATION

LOCATION:

Hay Road Wastewater Treatment Plant

ASSOCIATED GOALS:

Reduce the City's carbon footprint by investing in and advocating for cleaner energy options

OVERVIEW:

The City of Wilmington invested in a $35 million renewable energy initiative to reduce energy costs and greenhouse gas emissions. The construction of the Renewable Energy Biosolids Facility converts biogas from the wastewater treatment facility into power and heat. This facility allowed the City to meet its GHG reduction targets early and reduce the volume of sewage sludge requiring disposal.

ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

ASSOCIATED GOALS:

Reduce the City's carbon footprint by investing in and advocating for cleaner transportation options

OVERVIEW:

To support cleaner energy options, the City is investigating a citywide approach to electric vehicle charging. Past efforts for expanding electric vehicle charging infrastructure have stalled when trying to incentivize charging infrastructure on private property. The City is working on a broad initiative to make the permit application process easier to increase the uptake of charging infrastructure within the City. Charging infrastructure installation wins are expected in commercial developments and parking garages. Additionally, the City is exploring partnerships with New Castle County and Newark to create a region-wide strategy for electric vehicle charging.

ENERGY EFFICIENT STREETLIGHTS

ASSOCIATED GOALS:

Reduce the City's carbon footprint by investing in and advocating for cleaner energy options

OVERVIEW:

Prompted by a request from community members, the City converted all 7,050 streetlights to LED lighting. These replacements cut energy consumption by between 42% and 50%, saving the City around $150,000 in energy costs. In addition to improving energy efficiency, the LED lights provide a more reliable lighting source due to their increased lifespan.

FLEET REPLACEMENT

ASSOCIATED GOALS:

Reduce the City's carbon footprint by investing in and advocating for cleaner transportation options

OVERVIEW:

The City is working towards the replacement of all non-uniform city vehicles to hybrid-electric and alternative energy vehicles. So far, the City has received 11 hybrid-electric vehicles. In addition to the hybrids, the Department of Public Works received an all-electric truck as part of a pilot program to test the viability of electric vehicles for City vehicles.

LESSONS LEARNED FOR ENSURING THE CITY'S RESILIENCE MOVING FORWARD

The Resilient Wilmington Working Group has carried the torch of improving the City's resilience over the past two years. Throughout implementing resilience solutions across the City, different challenges have arisen in expanding the impact of this work. To ensure that the City has the tools to continue building a resilient and prosperous future, key factors must be addressed:

CAPACITY

To date, responsibility for coordinating resilience work in the city has fallen on the Department of Public Works. While key resilience needs exist in the capital improvements realm, staff from the Department of Public Works are taking on resilience work on top of their regular workload. To accelerate the pace of resilience work in Wilmington, **the City should create a Resilience Coordinator position and a Resilience Grant Writing and Administrative Support position**. These roles would foster interdepartmental collaboration and support the acquisition of additional external funding for resilience-related efforts.

LEADERSHIP

In addition to professional leadership coming from the Department of Public Works, funding supporting the Resilient Wilmington effort has also come from DPW. The stability and longevity of Resilient Wilmington will depend on broadening the leadership and funding available for implementation. **City leaders should continue to elevate Resilient Wilmington as an administrative priority and work to establish a permanent funding source for the work.**

COMMUNITY ENGAGEMENT

Thus far, the Resilient Wilmington Working Group has been an internal City effort. The community, however, plays a critical role in identifying emerging resilience needs and in implementing resilience solutions across the city. The Resilient Wilmington Working Group has begun to identify numerous opportunities to engage the community and refine our understanding of resilience needs. However, **the City should create additional capacity to support consistent public outreach.**

The 3-year Resilient Wilmington plan update highlights significant progress in enhancing the City's ability to withstand and adapt to various challenges. Through interdepartmental collaboration, the City has implemented initiatives that strengthen infrastructure, promote sustainable practices, and engage the community in resilience-building efforts. Wilmington has improved its emergency preparedness, environmental sustainability, and economic resilience. However, there is more work to do. The City will maintain its momentum by continuing to collaborate across departments and engage with the public on resilience-related studies and projects.
Check back in for future updates on Resilient Wilmington.

LOOKING FORWARD

At this critical juncture, there are many opportunities to strategically strengthen the Resilient Wilmington work and embed resilience throughout the City's planning, programs, projects, and operations. Below are some key near- and mid-term recommendations based on Working Group input.

NEAR-TERM OPPORTUNITIES (1-3 YEARS)

EDUCATION AND OUTREACH

Educating the public about resiliency work in Wilmington is essential for fostering stewardship among youth, raising awareness about risks, and improving disaster preparedness. Expanding the current education and outreach practices offer easy wins for resilience.

- **Expand the Number of Outdoor Living Classrooms** – Build on the success of the living classroom in Cool Springs Park by developing living classrooms in other City parks in partnership with local schools.
- **Offer CERT Training to More Communities** – Improve preparedness of communities by offering CERT training in other Wilmington communities.
- **Foster Greater Attendance at Earth and Arbor Day** – Expand the impact of Earth and Arbor Day by drawing greater attendance from more schools.
- **Capital Day** – Send a delegation of City staff to Dover to advocate for various resilience needs.

COLLABORATION WITH PARTNERS

Partnerships with County and State agencies have made Resilient Wilmington possible. The City should continue to leverage valuable relationships with local and state agencies including DNREC and Newark, to expand the impact of Resilient Wilmington.

Tabling at a Summer Concert About the Lower Brandywine Flooding Study 2024

MID-TERM OPPORTUNITIES (3-5 YEARS)

GHG REDUCTION

Reducing the City's greenhouse gas emissions is a key recommendation of Resilient Wilmington. Opportunities exist for policy changes and planning to continue reducing reliance on fossil fuels.

- **Electric Vehicle Charging Infrastructure Master Planning** – Expand policy discussions for increasing uptake of EV charging infrastructure on public and private land. Apply for funding to support EV charging infrastructure implementation on public land.
- **Bike and Pedestrian Master Planning** – Align with DelDOT's bike infrastructure planning to design a connected system of bike and pedestrian infrastructure throughout the city.

FLOOD AND HEAT RESILIENCE IMPROVEMENTS

Wilmington is prone to flooding and extreme heat. To improve Wilmington's resilience to flood hazards, the City can continue to advance work to absorb, store, separate, and divert flood waters. Efforts to combat extreme heat include strategically greening the City in places that experience the most extreme heat.

- **Urban Forestry Plan** – Planting trees has both absorptive and heat reduction capabilities. Strategically expanding tree planting throughout the city can help reduce stormwater runoff and reduce heat.
- **Combined Storm Sewer Separation** – Continuing to separate storm water pipes from sewer pipes will help reduce the instances of combined sewer overflows during heavy rainfall events.
- **Flood Resilience Studies** – Continue preliminary planning and design underway for the Lower Brandywine and South Wilmington to bring projects and programs into construction.
- **Park Improvements** – Collaborations between the Parks and Recreation and Public Works departments to identify opportunities for increasing water storage in parks will help alleviate neighborhood flooding.

RESILIENCY IN THE CITY'S CODE

Wilmington's code shapes how the city is designed and built. Aligning the city's zoning code and development review process with resilience, energy efficiency, and walkability in mind will help create a thriving and resilient city.

IN CONCLUSION:

Since 2022, Resilient Wilmington has made significant strides in advancing its priority goals and fostering a more sustainable and resilient city. Through interdepartmental collaboration and community engagement, projects like park improvements, CERT training, and green infrastructure initiatives have demonstrated the potential for meaningful progress. However, the continued success of these efforts relies on securing additional resources, including increased staff capacity and funding, to expand the impact of this work. By investing in these critical areas, the city can capitalize on near- and mid-term opportunities, such as enhancing education and outreach programs, improving disaster preparedness, and incorporating resiliency into city codes and planning. These investments will ensure Wilmington remains prepared to meet current and future challenges while building a resilient foundation for generations to come.

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DELAWARE